ATTACHMENT A
(List of MMs and APMs)

Attachment A - Mitigation Measures

All mitigation measures presented in the Final EIR/EIS are listed below. These include Applicant Proposed Mitigation Measures.

Aesthetic and Visual Resources

Mitigation Measures

MM AES-1: Painting the Ivanpah Substation. Prior to construction, the applicant will consult with the BLM to select an appropriate color from the BLM approved palette to paint any enclosed structures that would be constructed for the Ivanpah Substation. The applicant will submit photographs following substation construction to the BLM and the CPUC to document compliance with this measure.

MM AES-2: Rock Staining near the Ivanpah Substation. For areas that are cleared and/or graded to construct the Ivanpah Substation, the applicant would consult with the BLM regarding feasible methods to treat the exposed rock to match the overall color of the adjacent weathered rock.

MM AES-3: Microwave Dish Color. Prior to construction, the color of the microwave dishes or covers must be approved by the BLM. White dishes or covers will be avoided to minimize color contrast with the existing landscape.

Applicant Proposed Measures

APM AES-1: Road Cut Rock Staining. Where new roads are required in the South McCullough Mountains to access new or existing transmission and subtransmission towers, the applicant would consult with the BLM regarding feasible methods to treat the exposed rock to match the overall color of the adjacent weathered rock.

APM AES-2: Seeding and Inter-Planting. Where new roads are required in the South McCullough Mountains to access new or existing transmission and subtransmission towers, road cuts would be treated by seeding and/or inter-planting into the disturbed areas to restore the area to an appearance that would blend back into the overall landscape context.

APM AES-3: Non-Reflective Finish. LSTs and TSPs would be constructed of steel that was galvanized and treated at the factory to create a dulled finish that would reduce reflection of light off of the tower members. As appropriate to the environment, the galvanized coating would also be treated to allow the towers to blend into the backdrops. Non-specular transmission cable would be installed for the new transmission line to minimize conductor reflectivity.

APM AES-4: Regrade/Revegetate Construction Sites. Areas around new or rebuilt transmission and subtransmission structures that must be cleared during the construction process would be regraded and revegetated to restore them to an appearance that would blend back into the overall landscape context.

APM AES-5: Use Existing Access Roads. To the extent feasible, existing access roads would be used.

APM AES-6: Minimize Road Modifications. Widening and grading of roads would be kept to the minimum required for access by proposed project construction equipment.

APM AES-7: Dust Suppression. During the construction period, dust suppression measures would be used to minimize the creation of dust clouds potentially associated with the use of the access roads.

APM AES-8: Substation Lighting Control. The substation lighting would be designed to be manually operated only when required for non-routine nighttime work. The lighting would be directed downward and shielded to eliminate offsite light spill at times when the lighting might be in use.

Air Quality

Mitigation Measures

MM AIR-1: Low-emission Construction Equipment. All construction equipment with a rating between 100 and 750 horsepower (hp) will be required to use engines compliant with U.S. EPA Tier 2 non-road engine standards. In addition, all off-road and portable construction diesel engines not registered under the CARB Statewide Portable Equipment Registration Program that have a rating of 50 hp or more will meet, at a minimum, the Tier 2 California non-road engine standards unless that engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine will be equipped with a Tier 1 engine. The applicant will substitute small electric-powered equipment for diesel- and gasoline-powered construction equipment where feasible. The applicant will maintain construction equipment according to manufacturing specifications and use low-emission equipment.

MM AIR-2: Enhanced Dust Control Measures. In addition to the dust control requirements by MDAQMD and CC-DAQEM, the following measures will be implemented for mitigation:

- Frequent watering or stabilization of excavations, spoils, access roads, storage piles, and other sources of fugitive dust (parking areas, staging areas, other) if construction activity causes persistent visible emissions of fugitive dust beyond the work area
- Pre-watering of soils prior to clearing and trenching
- Pre-moistening of, prior to transport, import and export dirt, sand, or loose materials
- Dedication of water truck or high-capacity hose to any soil screening operations
- Minimization of drop height of material through screening equipment
- Reduction of the amount of disturbed area where possible
- Planting of vegetative ground cover in disturbed areas after construction activities have ceased within a time period that is consistent with the Project's Reclamation Plan as described in MM BIO-2.

MM AIR-3: Best Management Practices for GHG Reduction. The applicant would be required to enforce and follow limits for idling time for commercial vehicles, including delivery and construction vehicles. The applicant would be also be required to consider the following best management practices to reduce the potential for GHG emissions:

- Joining U.S. EPA's SF6 Emission Reduction Partnership for Electric Power Systems (http://www.epa.gov/highgwp/electricpower-sf6/basic.html);
- Performing annual inspections and estimation of SF6 emissions using an emission inventory protocol;
- For equipment that would contain SF6, purchasing only new equipment that meets International Council on Large Electric Systems (CIGRE) standards for leak rates;
- Implementing SF6 recovery and recycling;
- Ensuring that only knowledgeable personnel handle SF6; and
- Providing a vanpool for construction workers.

Biological Resources

Mitigation Measures

MM BIO-1: Preconstruction Surveys. Preconstruction surveys will be conducted by USFWS-approved biologists according to the most current USFWS protocols, where available by species. These surveys will include surveying brush clearing areas and ground disturbance areas within habitat deemed suitable for sensitive species by a qualified biologist. As part of the pre-construction surveys, the composition of the vegetation community will be surveyed to establish baseline conditions prior to construction for post-construction restoration efforts. These surveys will be conducted for the presence of special-status plants, the presence of noxious weeds, and the presence of general and special-status wildlife species, to prevent direct loss of vegetation and wildlife and to prevent the spread of noxious plant species. For the noxious weeds survey, the level of effort and extent of the surveys will be outlined by the Invasive Plant Management Plan (MM BIO-4).

MM BIO-2: Reclamation Plan. The applicant will develop a Reclamation, Restoration, and Revegetation Plan (RRRP) prior to adoption of the Final EIR/EIS that will guide restoration and revegetation activities for all disturbed lands associated with construction of the project and the eventual termination and decommissioning of the project. The RRRP will be part of the applicant's final Plan of Development for the project and should address all federal and private land disturbances, including areas where restoration activities have been funded by the Clark County MSHCP and initiated by resource agencies. The RRRP will be developed in consultation with appropriate agencies (BLM, CPUC, CDFG, and Clark County DCP) and be provided to these agencies for review and approval prior to preparation of the Final EIR/EIS. NDOW and the BLM Las Vegas Field Office will be consulted for restoration efforts concerning Nevada State protected cacti and yucca species, which may include preparation of a separate Cactus and Yucca Reclamation Plan. The RRRP will also provide details including but not limited to topsoil segregation and conservation, vegetation treatment and removal, salvage of succulent species, revegetation methods including seed mixes, rates and transplants, and criteria to monitor and evaluate revegetation success. Post-construction monitoring will be performed for 1 to 5 years, depending on the disturbance level and restoration level as outlined in the BLM's 2001 Restoration Plan for Energy Projects in the Las Vegas Field Office.

MM BIO-3: Special-Status Plants Restoration and Compensation. The applicant will mitigate for the loss of special-status plant species within the project area following the completion of all construction activities at a particular site and within 1 year of post-construction according to the requirements of resource agency authorizations (e.g., CDFG 2081 permit). Special-status plants will be restored by relocation of plants and/or re-seeding, replacing topsoil with existing topsoil that was removed, and re-grading to pre-existing soil contours. Measures to restore special-status plants will be implemented through the Reclamation Plan (MM BIO-2). Additionally, that plan will provide a matrix showing how the applicant will address each species considered sensitive or special-status in terms of mitigation type (e.g., seed collection, transplanting, fencing certain population, and compensation measures). The CDFG will likely require land compensation and enhancement and endowment fees for the project in addition to restoration. If special-status plant communities cannot be restored, the applicant will provide compensation if required, in consultation with appropriate agencies (USFWS, BLM, CDFG, NDOW, and CPUC). In order to ensure enforceability, documentation of consultations with all appropriate agencies will be provided to the CPUC (the CEQA lead agency).

MM BIO-4: Model Invasive Plant Management Plan on the BLM Las Vegas Office DRAFT Weed Plan. The Invasive Plant Management Plan to be developed (APM BIO-10) will be modeled on the BLM Las Vegas Office DRAFT Weed Plan. The plan will include operation and maintenance activities, as well as construction activities. The content of the plan will include results of the noxious weed inventory, identification of problem areas, preventative measures, treatment methods, agency-specific requirements, monitoring requirements, and herbicide treatment protocol. The plan will include best management practices that require that any biological

material brought on-site (e.g., hay bales that may be used for controlling stormwater under APM GEO-2, and native mixes for vegetation in MM BIO-2) will be certified weed-free. The plan will be submitted to both the California and the Nevada resource agencies and to the CPUC for approval prior to construction authorization.

MM BIO-5: Jurisdictional Delineation. Conduct a formal jurisdictional delineation within the boundaries of the project area once final engineering for the location of project-specific features is complete. This will be conducted prior to construction and is required in order to apply for permits, if needed, with USACE, California RWQCBs, and CDFG. A copy of the jurisdictional delineation will be provided to the CPUC.

MM BIO-6: Drainage Crossings Design. If drainages cannot be avoided by infrastructure placement, then the applicant will design drainage crossings to accommodate estimated peak flows and ensure that natural volume capacity can be maintained throughout construction and upon post-construction restoration. This measure is necessary to minimize the amount of erosion and degradation to which drainages are subject.

MM BIO-7: Mitigation Monitoring Plan for Affected Jurisdictional Areas. The applicant will develop a Mitigation Monitoring Plan for affected jurisdictional areas within established riparian areas, as needed, for submittal to the USACE for review and approval. The plan will outline measures to accomplish restoration, provide criteria for restoration success, and/or provide compensation ratios. This measure is needed to compensate for loss of waters and riparian vegetation that provide suitable habitat for special-status and sensitive species, and provide important hydrological and water quality functions in the desert environment. Monitoring and reporting, likely for up to 3 to 5 years post-construction, will be required, pending consultation with agencies. A copy of the approved Mitigation Monitoring Plan will be provided to the CPUC and CDFG.

MM BIO-8: Reduce Night Lighting. Night lighting will be reduced in all natural areas to avoid unnecessary visual disturbance to wildlife. Night lighting during construction, operations, and maintenance will be reduced in natural areas using directed lighting, shielding methods, and/or reduced lumen intensity. The applicant will indicate anticipated measures to resource agencies for approval prior to construction. The approved measures will be provided to the CPUC.

MM BIO-9: Cover Steep-walled Trenches or Excavations during Construction. To prevent entrapment of wildlife, all steep-walled trenches, auger holes, or other excavations will be covered at the end of each day. Fencing will be maintained around the covered excavations at night. For open trenches, earthen escape ramps will be maintained at intervals of no greater than 0.25 miles. A biological monitor will inspect all trenches, auger holes, or other excavations a minimum of twice per day during non-summer months and a minimum of three times per day during the summer (hotter) months, and also immediately prior to back-filling. Any wildlife species found will be safely removed and relocated out of harm's way, using suitable tools such as a pool net when applicable. For safety reasons, biological monitors will under no circumstance enter open excavations.

MM BIO-10: Biological Monitors. Biological monitors will be provided throughout construction activities in all construction zones with the potential for presence of sensitive biological resources. A minimum of one monitor per crew is needed for construction crews using heavy equipment (e.g., backhoes, large trucks). One roving monitor will monitor multiple times per day in other active construction zones where heavy equipment is not in use.

MM BIO-11: Water Usage. Water used for fugitive dust control will not be allowed to pool on access roads or other project areas, as this can attract desert tortoises. Similarly, leaks on water trucks and water tanks will be repaired to prevent pooling water.

MM BIO-12: Desert Tortoise Impacts Reduction Measures. To reduce impacts on desert tortoise, the following will be done:

- The applicant cannot begin construction until issuance and acceptance of the USFWS Biological Opinion, the CDFG 2081 permit, and NDOW authorization. A copy of the USFWS Biological Opinion and documentation of any compliance discussions with Clark County and Boulder City will be provided to the

CPUC and the Clark County Desert Conservation Program.

- Construction monitoring will employ a designated field contact representative, authorized biologist(s), and qualified biologist(s) approved by the USFWS, NDOW, and CDFG during the construction phase of the project. BLM will recommend qualified, authorized biologists to the USFWS and will approve all biological monitors.
- Qualified and/or authorized biologists will monitor all construction activities year-round in desert tortoise habitat, regardless of the time of year or weather conditions, as tortoises are often active outside their "active" season.
- Qualified and/or authorized biologists will conduct preconstruction surveys according to the most current USFWS protocol.
- Authorized biologists will handle desert tortoises following the most current Desert Tortoise Council handling guidelines (2009 or newer).
- Prior to commencing desert tortoise relocation activities, authorization will be obtained from NDOW, CDFG, and USFWS. The authorized biologist will not be required to receive approval to move individual desert tortoises during construction.
- Desert tortoise relocations will only occur from an active construction zone to an area that is not under active construction by the EITP project or any other planned project.
- Biological monitors will clear ahead of construction crews in desert tortoise habitat during all clearing and grading activities, or during any activity where undisturbed vegetation would be crushed. In addition, biological monitors will clear ahead of larger, non-rubber-tired equipment when that equipment is being driven on access and spur roads.
- Biological monitors will clear all active work sites located in desert tortoise habitat each morning before construction begins and throughout the day if crews move from construction site to construction site.
- Results of biological monitoring and status of construction will be detailed in daily reports by biological monitors. These reports will be submitted to the authorized biologist on a daily basis and to the CFR on a weekly basis (at minimum). The authorized biologist will notify the CFR within 24 hours of any action that involves harm to a desert tortoise, or involves a blatant disregard by construction personnel for the APMs or MMs designed to minimize impacts on desert tortoise or other wildlife. The authorized biologist will submit to the USFWS, NDOW, CDFG, and CPUC a summary of all desert tortoises seen, injured, killed, excavated, and handled at the end of the project or within 2 working days of when desert tortoises are harmed.
- No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). No desert tortoise shall be captured if the ambient air temperature is anticipated to exceed 95 degrees Fahrenheit before handling or processing can be completed. If the ambient air temperature exceeds 95 degrees Fahrenheit during handling or processing, desert tortoises shall be kept shaded in an environment which does not exceed 95 degrees Fahrenheit, and the animals shall not be released until ambient air temperature declines to below 95 degrees Fahrenheit. For relocation, captured tortoises may be held overnight and moved the following morning within these temperature constraints.
- During all handling procedures, desert tortoises must be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, hyperactivity, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises must be kept shaded at all times until it is safe to release them. Ambient air temperature must be measured in the shade, protected from wind, and at a height of 2 inches above the ground surface.

- If a desert tortoise voids its bladder as a result of being handled, the animal shall be rehydrated. The process of rehydrating a desert tortoise will take place at the location where the animal was captured (or to be released, for translocated tortoises), and consist of placing the desert tortoise in a tub with a clean plastic disposable liner. The amount of water that is placed in the lined tub shall not be higher than the lower jaw of the animal. Each desert tortoise shall be rehydrated for a minimum of 10 to 20 minutes. During the period when the desert tortoise is in the tub, the tub will be placed in a quiet protected area. Desert tortoises shall be soaked individually.
- If a desert tortoise is injured as a result of project-related activities, it shall be immediately taken to a CDFG-approved wildlife rehabilitation or veterinary facility. The applicant shall identify the facility prior to the start of ground- or vegetation-disturbing activities. The applicant shall bear any costs associated with the care or treatment of such injured covered species. The applicant shall notify CDFG of the injury immediately unless the incident occurs outside of normal business hours. In that event CDFG shall be notified no later than noon on the next business day. Notification to CDFG shall be via telephone or email, followed by a written incident report. Notification shall include the date, time, location, and circumstances of the incident, and the name of the facility where the animal was taken.
- The applicant will produce a Raven Management Plan that is acceptable to the BLM and the CPUC. Details in the plan will include information on procedures, frequency, and recommended season for conducting raven nest surveys, procedures and responsibilities for raven nest removal, USFWS/NDOW/CDFG authorization and/or permitting requirements for conducting raven control, and compensation measures for raven reduction programs in California and Nevada. The plan will be submitted to the BLM and the CPUC at least 60 days prior to construction for review and approval.

MM BIO-13: Desert Bighorn Sheep Impacts Reduction Measures. To reduce impacts on desert bighorn sheep, the following will be done:

- Conduct preconstruction survey for desert bighorn sheep within suitable bighorn sheep habitat within 1 week prior to construction activities in the McCullough Range, Clark Mountain Range, and the southern portion of the Eldorado Valley between the Highland Range and the Southern McCullough Range. The occurrence and location of any desert bighorn sheep will be reported to NDOW for sightings in Nevada and reported to CDFG for sightings in California.
- Conduct biological monitoring by a qualified biologist for desert bighorn sheep during duration of construction within suitable bighorn sheep habitat. The occurrence and location of any desert bighorn sheep will be reported to NDOW for sightings in Nevada and reported to CDFG for sightings in California. If bighorn are found to be within 500 feet of construction activities, construction in that area will be stopped until the sheep vacate the project area.
- Avoid all construction activities (with the exception of vehicle use of access roads during emergencies) in lambing areas from January to May in the North McCullough Pass area (approximately MP 9 to MP 12) during the duration of construction and all maintenance events.

MM BIO-14: American Badger Impacts Reduction Measures. To reduce impacts to American badger, the following will be done:

- Qualified biologists will be notified if badgers are observed within the project area during construction activities. Work will immediately be stopped in the area if the biologists find occupied burrows within 100 feet of construction activities during preconstruction surveys.
- Qualified biologists will ensure passive relocation of the occupied burrow by installing one-way trap doors on the burrow. The burrow will be collapsed after the badger vacates.
- During the spring months when young may be present in burrows, burrows must be checked for young

before the installation of the one-way trap door. If young are present during relocation efforts, all work will stop within 100 ft of the burrow until the young have left the burrows within the project area.

- Work will be allowed to resume once the badger has relocated outside the 100-foot zone.

MM BIO-15: Migratory Birds and Raptors Impacts Reduction Measures. To reduce impacts on migratory birds and raptors, the following will be done:

- Biological monitors will monitor and enforce disturbance buffers around all active bird nests (for raptors and species protected by the MBTA) found in project areas during construction. The general bird breeding season for this area is late February to early July. For raptors specifically, the applicant will use the USFWS Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (1999) to determine appropriate survey areas and disturbance buffers for active nests, except for burrowing owl nests, for which the applicant will be in compliance with the minimum distances outlined by the California Burrowing Owl Consortium Protocol. For all non-raptor bird species, biologists will survey within project areas. Because there are no standardized disturbance buffers for active non-raptor bird nests, SCE will consult with the appropriate agencies (BLM, USFWS, CDFG, and NDOW) on a case-by-case basis when active nests are found in project areas, unless directed to do otherwise by these same agencies.
- Active bird nests will not be moved during breeding season, unless the project is expressly permitted to do so by the USFWS, BLM, CDFG, or NDOW depending on the location of the nest.
- All active nests and disturbance or harm to active nests will be reported within 24 hours to the USFWS, BLM, CDFG, and NDOW upon detection.
- The biological monitor will halt work if it is determined that active nests would be disturbed by construction activities, until further direction or approval to work is obtained from the appropriate agencies.
- Seasonal work stoppages may be required by NDOW for project areas that pass the Wee Thump Joshua Tree Wilderness if construction activities occur within the breeding season. The applicant will consult with NDOW prior to construction.
- As outlined by the *Suggested Practices for Avian Protection on Power Lines* (APLIC 2006), the following avian safe practices will be employed during construction: cover phase conductors with manufactured covers, include perch discouragers on crossarms and on top of poles, exceed the minimal distance between phase conductors to prevent electrocution by perched birds and their wingspan, utilize longer horizontal insulators, suspend phase conductors on pole top and cross arms, install horizontal jumper support to increase the phase-to-ground separation, replace tension members with fiberglass or non-conducting materials, cover tension members with dielectric material, utilize fiberglass poles or switches, and install standard nest discouragers.

MM BIO-16: Burrowing Owl Impacts Reduction Measures. To reduce impacts on burrowing owl, the following will be done:

- A qualified biologist will conduct preconstruction surveys within 30 days prior to construction for burrowing owl within suitable habitat prior to breeding season (February 1 through August 31). All areas within 50 m (approximately 150 feet) of the project area will be surveyed.
- If an active nest is identified, there will be no construction activities within 50 m (approximately 150 feet) of the nest location to prevent disturbance until the chicks have fledged, as determined by a qualified biologist.
- The occurrence and location of any burrowing owl will be documented by biological monitors in daily reports and submitted to the authorized biologist on a daily basis. The authorized biologist will report all incidents of disturbance or harm to burrowing owls within 24 hours to the appropriate resource agencies (USFWS, BLM, NDOW, CDFG).

If burrowing owls are found on site in the California portion of the project, the following additional measures will be included:

1) As compensation for the direct loss of burrowing owl nesting and foraging habitat, the project proponent shall mitigate by acquiring and permanently protecting known burrowing owl nesting and foraging habitat at the following ratio:

   (a) Replacement of occupied habitat with suitable habitat at 1.5 x 6.5 acres per pair or single bird;

   (b) Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 x 6.5 acres per pair or single bird; and/or

   (c) Replacement of occupied habitat with suitable unoccupied habitat at 3 x 6.5 acres per pair or single bird.

2) A Burrowing Owl Mitigation and Monitoring Plan shall be submitted to CDFG for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The plan shall also describe proposed off site areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site as required under Condition 1. A copy of the approved plan will be provided to the CPUC.

MM BIO-17: Gila Monster Compliance. The most current NDOW construction site protocols for the Gila monster (NDOW 2007) will be followed by the applicant in both Nevada and California portions of the project. To reduce impacts on Gila monster, all locations of Gila monster found within the project area during surveys and construction work will be reported to NDOW and the CDFG.

MM BIO-18: Avian Protection Plan. To reduce impacts on golden eagles and raptors, the applicant shall submit an Avian Protection Plan for approval to the BLM within 6 months of the issuance of any ROW grant for the project. The Plan shall be prepared according to guidance provided by the USFWS (USFWS 2010).The Avian Protection Plan must be implemented within one year from the date of any ROW grant Notice to Proceed.

Applicant Proposed Measures

APM BIO-1: Conduct Preconstruction Surveys. Preconstruction biological clearance surveys would be conducted by qualified biologists to identify special-status plants and wildlife.

APM BIO-2: Minimize Vegetation Impacts. Every effort would be made to minimize vegetation removal and permanent loss at construction sites. If necessary, native vegetation would be flagged for avoidance.

APM BIO-3: Avoid Impacts on State and Federal Jurisdiction Wetlands. Construction crews would avoid impacting the streambeds and banks of streams along the route to the extent possible. As applicable, the necessary permits would be obtained from the appropriate agencies. Impacts would be mitigated based on the terms of the permits. No streams with flowing waters capable of supporting special-status species would be expected to be impacted by the proposed project.

APM BIO-4: Best Management Practices. Crews would be directed to use Best Management Practices (BMPs) where applicable. These measures would be identified prior to construction and incorporated into the construction operations.

APM BIO-5: Biological Monitors. Biological monitors would be assigned to the project in areas of sensitive biological resources. The monitors would be responsible for ensuring that impacts on special-status species, native vegetation, wildlife habitat, or unique resources would be avoided to the fullest extent possible. Where appropriate, monitors would flag the boundaries of areas where activities would need to be restricted in order to

protect native plants and wildlife or special-status species. Those restricted areas would be monitored to ensure their protection during construction.

APM BIO-6: Worker Environmental Awareness Program (see CR-2b, PALEO-3, W-11). A Worker Environmental Awareness Program (WEAP) would be prepared. All construction crews and contractors would be required to participate in WEAP training prior to starting work on the project. The WEAP training would include a review of the special-status species and other sensitive resources that could exist in the project area, the locations of sensitive biological resources and their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all trained personnel would be maintained.

APM BIO-7: Avoid Impacts on Active Bird Nests. SCE would conduct project-wide raptor and nesting bird surveys and remove trees or other vegetation, if necessary, outside of the nesting season (nesting season in the project area is late February to early July). If vegetation or existing structures containing a raptor nest or other active nest needed to be removed during the nesting season, or if work was scheduled to take place in close proximity to an active nest on an existing transmission or subtransmission tower or pole, SCE would coordinate with the USFWS, CDFG, and/or the NDOW as appropriate to obtain written verification prior to moving the nest.

APM BIO-8: Avian Protection. All transmission and subtransmission towers and poles would be designed to be avian-safe in accordance with the Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (APLIC 2006).

APM BIO-9: Facility Siting. Final tower and spur road locations would be adjusted to avoid sensitive biological resources to the greatest extent feasible.

APM BIO-10: Invasive Plant Management. An invasive plant management plan would be developed to reduce the potential for spreading invasive plant species during construction activities.

APM BIO-11: Desert Tortoise Measures. The applicant or a qualified consultant would provide for the following to reduce impacts on desert tortoise:

- The applicant cannot begin construction until issuance and acceptance of the USFWS Biological Opinion, the CDFG 2081 permit, and NDOW authorization. Additionally, compliance discussions with Clark County and Boulder City must occur prior to construction that resolve and outline the specific compensation fees or additional mitigation measures needed for loss of desert tortoise habitat. A copy of the USFWS Biological Opinion and documentation of any compliance discussions with Clark County and Boulder City will be provided to the CPUC.
- A field contact representative (FCR) would be designated and would oversee compliance monitoring activities and coordination with authorizing agency(s). Compliance activities would at a minimum include conducting preconstruction surveys, assuring proper removal of desert tortoise, staffing biological monitors on construction spreads, and upholding all conditions authorized. The field contact representative would also oversee all compliance documentation including daily observation reports, non-compliance and corrective action reports, and final reporting to any authorized agency upon project completion.
- All work area boundaries associated with temporary and permanent disturbances would be conspicuously staked, flagged, or otherwise marked to minimize surface disturbance activities. All workers would strictly limit activities and vehicles to the designated work areas.
- Crushing/removal of perennial vegetation in work areas would be avoided to the maximum extent practicable.
- All trash and food items generated by construction and maintenance activities would be promptly contained and regularly removed from the project site(s) to reduce the attractiveness of the area to common ravens.
- Pets would not be allowed in working areas unless restrained in a kennel.

- Where possible, motor vehicles would be limited to maintained roads and designated routes.
- Vehicle speed within the project area, along ROW maintenance routes, and along existing access roads would not exceed 20 miles per hour. Speed limits would be clearly marked and all workers would be made aware of these limits.
- Constructed road berms would be less than 12 inches in height and have slopes of less than 30 degrees.
- Construction monitoring would employ a designated field contact representative, authorized biologist(s), and qualified biologist(s) approved by the BLM during the construction phase. At a minimum, qualified biologist(s) would be present during all activities in which encounters with tortoises could occur. A qualified biologist is defined as a person with appropriate education, training, and experience to conduct tortoise surveys, monitor project activities, provide worker education programs, and supervise or perform other implementing actions. An authorized biologist is defined as a wildlife biologist who has been authorized to handle desert tortoises by the USFWS. A field contact representative is defined as a person designated by the project proponent who is responsible for overseeing compliance with desert tortoise protective measures and for coordination with agency compliance officer(s).
- Preconstruction clearance surveys would be conducted within 48 hours of initiation of site-specific project activities, following USFWS protocol (USFWS 1992). The goal of a clearance survey is to find all tortoises on the surface and in burrows that could be harmed by construction activities. Surveys would cover 100 percent of the acreage to be disturbed. All potential tortoise burrows within 100 feet of construction activity would be marked. Tortoise burrows would be avoided to the extent practicable, but would be excavated if they would be crushed by construction activities.
- Any tortoise found on the surface would be relocated to less than 1,000 feet away. Tortoises would be handled carefully following the guidelines given in Guidelines for Handling Desert Tortoise during Construction Projects (Desert Tortoise Council 1999). Tortoises would be handled with new latex gloves each time to avoid transmission of disease, and handlers would especially note guidelines for precautions to be taken during high-temperature periods.
- If a potential tortoise burrow were required to be excavated, the biologist would proceed according to the guidelines given in Guidelines for Handling Desert Tortoise during Construction Projects (Desert Tortoise Council 1999). Tortoises removed from burrows would be relocated to an artificial burrow (Desert Tortoise Council 1999). The entrance of the artificial burrow would be blocked until construction activities in the area were over (Desert Tortoise Council 1999).
- For activities conducted between March 15 and November 1 in desert tortoise habitat, all activities in which encounters with tortoises might occur would be monitored by a qualified or authorized biologist. The biologist would be informed of tortoises relocated during preconstruction surveys so that he or she could watch for the relocated tortoises in case they attempted to return to the construction site. The qualified or authorized biologist would watch for tortoises wandering into the construction areas, check under vehicles, examine excavations and other potential pitfalls for entrapped animals, examine exclusion fencing, and conduct other activities to ensure that death or injuries of tortoises were minimized.
- No overnight hazards to desert tortoises (e.g., auger holes, trenches, pits, or other steep-sided depressions) would be left unfenced or uncovered; such hazards would be eliminated each day prior to the work crew and biologist leaving the site. Large or long-term project areas would be enclosed with tortoise-proof fencing. Fencing would be removed when restoration of the site was completed.
- Any incident occurring during project activities that was considered by the biological monitor to be in non-compliance with the mitigation plan would be documented immediately by the biological monitor. The field contact representative would ensure that appropriate corrective action was taken. Corrective actions would be documented by the monitor. The following incidents would require immediate cessation of the

construction activities causing the incident, including (1) imminent threat of injury or death to a desert tortoise; (2) unauthorized handling of a desert tortoise, regardless of intent; (3) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (4) conducting any construction activity without a biological monitor where one was required. If the monitor and field contact representative did not agree, the federal agency's compliance officer would be contacted for resolution. All parties could refer the resolution to the federal agency's authorized officer.

- Results of biological monitoring and status of construction will be detailed in daily reports by biological monitors. These reports will be submitted to the authorized biologist on a daily basis and to the FCR on a weekly basis (at minimum). The authorized biologist will notify the FCR within 24 hours of any action that involves harm to a desert tortoise, or involves a blatant disregard by construction personnel for the APMs or MMs designed to minimize impacts on desert tortoise or other wildlife. The authorized biologist will submit to the USFWS, NDOW, CDFG, and CPUC a summary of all desert tortoises seen, injured, killed, excavated, and handled at the end of the project or within 2 working days of when desert tortoises are harmed.
- All construction personnel, including subcontractors, would complete a WEAP. This instruction would include specific desert tortoise training on distribution, general behavior and ecology, identification, protection measures, reporting requirements, and protections afforded by state and federal endangered species acts.
- Parked vehicles would be inspected prior to being moved. If a tortoise were found beneath a vehicle, the authorized biologist would be contacted to move the animal from harm's way, or the vehicle would not be moved until the desert tortoise left of its own accord. The authorized biologist would be responsible for taking appropriate measures to ensure that any desert tortoise moved in this manner was not exposed to temperature extremes that could be harmful to the animal.
- Should any desert tortoise be injured or killed, all activities would be halted, and the field contact representative and/or authorized biologist immediately contacted. The field contact representative and/or authorized biologist would be responsible for reporting the incident to the authorizing agencies.
- A report to the USFWS would be produced reporting all tortoises seen, injured, killed, excavated, or handled. GPS locations of live tortoises would be reported.
- The applicant would implement a Raven Management Program that would consist of: (1) an annual survey to identify raven nests on towers and any tortoise remains at tower locations; this information would be relayed to the BLM so that the ravens and/or their nests in these towers could be targeted for removal, (2) SCE making an annual or one time contribution to an overall raven reduction program in the California or Nevada desert, with an emphasis on raven removal in the vicinity of this project.

APM BIO-12: Desert Bighorn Sheep Measures. The applicant would consult with the BLM, USFWS, and NDOW regarding conservation measures to avoid impacts on desert bighorn sheep during construction. Project areas with the potential to impact bighorn sheep include the proposed transmission line route through the McCullough Range and the telecommunication route segment in the southern Eldorado Valley between the Highland Range and the Southern McCullough Range. Avoidance and minimization measures could include such elements as preconstruction surveys, biological monitoring, and timing construction activities to avoid bighorn sheep active seasons. Construction requiring the use of helicopters would be conducted outside of bighorn lambing season (April through October) and the dry summer months when bighorn may need to access artificial water sources north of the propose route in the McCullough Range (June through September).[1]

APM BIO-13: Western Burrowing Owl Measures. Where project ground-disturbing activities would occur prior to the burrowing owl breeding season (mid-March to August), all burrows, holes, crevices, or other cavities in

[1] The date of bighorn lambing season has been amended per MM BIO-13 to be January to May.

suitable habitat on the project, within the limits of proposed ground disturbance, would be thoroughly inspected by a qualified biologist before being collapsed. This would discourage owls from breeding on the construction site. Other species using burrows would be relocated prior to collapsing burrows. If construction were to be initiated after the commencement of the breeding season and burrowing owls could be seen within areas to be affected by ground construction activities, a qualified biologist would observe behavior to determine their breeding status. If breeding were observed, the nest area would be avoided, with an appropriately sized buffer sufficient to prevent disturbance during construction activities until the chicks fledged.

APM BIO-14: Gila Monster and Chuckwalla Measures. The following measures are the current NDOW construction site protocols for the Gila monster (NDOW 2005).[2] These protocols are applicable for the Gila monster in both the Nevada and California sections of the project, and applicable for the chuckwalla in the Nevada section of the project.

Through the WEAP, workers and other project personnel should (at a minimum) know how to (1) identify Gila monsters and distinguish them from other lizards such as chuckwallas and banded geckos, (2) report any observations of Gila monsters (in Nevada) to the biological monitor for notification of the NDOW, (3) be alerted to the consequences of a bite resulting from carelessness or unnecessary harassment, and (4) be aware of protective measures provided under state law.

- Live Gila monsters found in harm's way on the construction site would be captured and then detained in a cool, shaded environment (<85 degrees Fahrenheit) by the project biologist or equivalent personnel until an NDOW biologist could arrive for documentation purposes. Although a Gila monster is venomous and can deliver a serious bite, its relatively slow gait allows for it to be easily coaxed or lifted into an open bucket or box, carefully using a long handled instrument such as a shovel or snake hook (note: it is not the intent of NDOW to request unreasonable action to facilitate captures; additional coordination with NDOW will clarify logistical points). A clean 5-gallon plastic bucket with a secure, vented lid; an 18-inch x 18-inch x 4-inch plastic sweater box with a secure, vented lid; or a tape-sealed cardboard box of similar dimension may be used for safe containment. Additionally, written information identifying the mapped capture location (e.g., GPS record), date, time, and circumstances (e.g., biological survey or construction) and habitat description (vegetation, slope, aspect, and substrate) would also be provided to NDOW.
- Injuries to Gila monsters may occur during excavation, blasting, road grading, or other construction activities. If a Gila monster is injured, it should be transferred to a veterinarian proficient in reptile medicine for evaluation of appropriate treatment. Rehabilitation or euthanasia expenses would not be covered by NDOW. However, NDOW would be immediately notified during normal business hours. If an animal were killed or found dead, the carcass would be immediately frozen and transferred to NDOW with a complete written description of the discovery and circumstances, habitat, and mapped location.
- Should NDOW's assistance be delayed, biologists or equivalent acting personnel on site may be requested to remove and release the Gila monster out of harm's way. Should NDOW not be immediately available to respond for photo-documentation, a 35-mm camera or equivalent (5 mega-pixel digital minimum preferred) would be used to take good quality images of the Gila monster in situ at the location of live encounter or dead salvage. The pictures, preferably on slide film (.tif or .jpg digital format) would be provided to NDOW. Pictures would include the following information: (1) Encounter location (landscape with Gila monster in clear view); (2) a clear overhead shot of the entire body with a ruler next to it for scale (Gila monster should fill camera's field of view and be in sharp focus); (3) a clear, overhead close-up of the head (head should fill camera's field of view and be in sharp focus).

Cultural Resources

[2] The date of the most current NDOW Gila monster protocols has been amended per MM BIO-17 to be 2007.

Mitigation Measures

MM CR-1: Cultural Resources Monitoring. The applicant will retain a cultural resources monitor who meets the Secretary of the Interior Standards of a Qualified Professional Archaeologist prior to commencing construction or geotechnical test trenching on the project. The archaeologist will need to be approved by the BLM and will provide construction monitoring for any geotechnical studies that require trench excavation. As mentioned in APM GEO-1, five of the tower installations and 20 percent of the ground-trenching activities are in archaeologically sensitive areas. Monitoring in these areas will be determined by the BLM prior to construction.

Monitoring is necessary because a potential for cultural resources beneath desert pavement surfaces on alluvial planes was recently determined. Such conditions exist throughout much of the EITP project area. This monitoring effort would be used to protect potential resources and to provide data to help confirm or deny the theory of desert pavement development that would allow for buried cultural resources. BLM reserves the right to increase the amount of monitoring at any time if conditions reveal the necessity.

The archaeologist will present to the BLM for approval, no less than 60 days prior to commencement of construction, a monitoring plan; copies of which will also be submitted to the CPUC by the archaeologist. The archaeologist will also provide a report of findings after the monitoring has been completed. Because this geoarchaeological sensitivity has not been widely tested, the BLM is requiring only a small sample of monitoring at this time; further monitoring will only be required if the need is proven.

MM CR-2: Historic American Engineering Record Recordation. Prior to construction of the EITP, the applicant will retain a cultural resources specialist qualified to conduct HAER recordation, meeting the Secretary of the Interior Standards. The qualified cultural resources specialist will conduct HAER recordation on Cultural Resource 36-10315 (CA-SBR-10315H). HAER recordation will be conducted in accordance the Secretary of the Interior's Standards for Architectural and Engineering Documentation, following Documentation Criteria Level II, as appropriate, for the level of significance assigned to the resources.

MM CR-3: Archaeological Resources Protection Act (ARPA) Training. Prior to construction, the applicant will provide ARPA training with the preconstruction Worker Environmental Awareness Program (WEAP; APM CR-2b). As required for the WEAP, ARPA training will be presented to all proposed project personnel who have the potential to encounter and alter unique archaeological sites, historical resources, or historic properties, or properties that may be eligible for listing in the NRHP. This includes construction supervisors as well as field construction personnel. No construction worker would be involved in ground-disturbing activities without having participated in the ARPA training portion of the WEAP.

Applicant Proposed Measures

APM CR-1: Conduct Archaeological Inventory of Areas that May Be Disturbed. Conduct an intensive archaeological inventory of all areas that may be disturbed during construction and operation of the proposed project. A complete cultural resources inventory of the project area has been conducted, details of which are contained in a technical report. Should the project substantially change and areas not previously inventoried for cultural resources become part of the construction plan, the applicant would ensure that such additional areas are inventoried for cultural resources prior to any disturbance. All surveys would be conducted and documented according to applicable laws, regulations, and professional standards.

APM CR-2: Avoid and Minimize Impacts on Significant Cultural Resources Wherever Feasible. Avoid and minimize impacts on significant or potentially significant cultural resources wherever feasible. To the extent practical, the applicant would avoid or minimize impacts on archaeological resources, regardless of its CRHR or NRHP eligibility status. This includes siting all ground-disturbing activities and other project components outside a buffer zone established around each recorded archaeological site within or immediately adjacent to the right-

of-way.

APM CR-2a. Avoid Direct Impacts on Significant Cultural Resources through Project Final Design. Project Final Design would avoid direct impacts on significant or potentially significant cultural resources. To the extent practical, all ground-disturbing activities and other project components would be sited to avoid or minimize impacts on cultural resources listed as or potentially eligible for listing as, unique archaeological sites, historical resources, or historic properties.

APM CR-2b. Conduct a Preconstruction Worker Environmental Awareness Program (see BIO-6, PALEO-3, and W-11). The program would be presented to all proposed project personnel who have the potential to encounter and alter unique archaeological sites, historical resources, or historic properties, or properties that may be eligible for listing in the CRHR or NRHP. This includes construction supervisors as well as field construction personnel. No construction worker would be involved in ground-disturbing activities without having participated in the Worker Environmental Awareness Program.

APM CR-2c. Protective Buffer Zones. Establish and maintain a protective buffer zone around each recorded archaeological site within or immediately adjacent to the right-of-way. A protective buffer zone would be established around each recorded archaeological site and treated as an "environmentally sensitive area" within which construction activities and personnel are not permitted. Monitoring would be conducted to ensure that the protective areas are maintained.

APM CR-3. Evaluate Significance of Unavoidable Cultural Resources. Evaluate the significance of all cultural resources that cannot be avoided. Cultural resources that cannot be avoided and which have not been evaluated to determine their eligibility for listing in the CRHR or NRHP would be evaluated to determine their historical significance. Evaluation studies would be conducted and documented according to applicable laws, regulations, guidelines, and professional standards.

APM CR-3a. Evaluate Significance of Potentially Eligible Archaeological Resources. Evaluate the significance of archaeological resources potentially eligible for CRHR or NRHP listing. Evaluation of archaeological sites could include scientific excavation of a sample of site constituents sufficient to understand the potential of a site to yield information to address important scientific research questions per CRHR eligibility Criterion 4 and NRHP eligibility Criterion D. Sites with rock art would be evaluated to consider their eligibility per CRHR Criterion 1 and NRHP Criteria A, C, and D.

APM CR-3b. Evaluate Significance of Potentially Eligible Buildings and Structures. Evaluate the significance of buildings and structures potentially eligible for CRHR or NRHP listing. Evaluation would take into account engineering, aesthetic, architectural, and other relevant attributes of each property. Buildings and structures would be evaluated for historical significance per CRHR eligibility Criteria 1, 2, and 3, and NRHP Criteria A, B, and C. A report of the evaluation of each building or structure would be prepared providing a rationale for an assessment of significance consistent with professional standards and guidelines. The report would be filed with the appropriate Information Center of the California Historical Resources Information System.

APM CR-3c. Assist with Native American Consultations. If necessary, the applicant would assist BLM in consultations with Native Americans regarding traditional cultural values that may be associated with locations within the APE. Archaeological or other cultural resources associated with the project may have cultural values ascribed to them by Native Americans. The applicant would assist the BLM during consultation with Native Americans regarding Native American cultural remains.

APM CR-4. Minimize Unavoidable Impacts on Significant Cultural Resources, including Unique Archaeological Sites, Historical Resources, and Historic Properties. The applicant would make reasonable efforts to avoid adverse project effects to unique archaeological sites, historical resources, and historic properties. Nevertheless, it may not be possible to situate all proposed project facilities to completely avoid impacts on significant cultural resources. Impacts on significant cultural resources would be minimized by implementing the measures listed in APM CR-4a.

APM CR-4a. Implement Measures to Minimize Impacts on Significant Archaeological Sites. Prior to construction and during construction, the following measures would be implemented by the applicant to minimize unavoidable impacts on significant archaeological sites:

- To the extent practical, all activities would minimize ground surface disturbance within the bounds of significant archaeological sites, historical resources, or historic properties.
- Portions of significant archaeological sites, historical resources, or historic properties that can be avoided would be protected as environmentally sensitive areas and would remain undisturbed by construction activities.
- Monitoring by qualified professionals and/or Native Americans to ensure that impacts on sites are minimized would be carried out at each affected cultural resource for the period during which construction activities pose a potential threat to the site, and for as long as there is the potential to encounter unanticipated cultural or human remains.
- Additional archaeological studies would be carried out at appropriate sites to ascertain whether project facilities could be located on a portion of a site and cause the least amount of disturbance to significant cultural materials.
- If impacts on significant archaeological (NRHP- or CRHR-eligible) sites eligible under NRHP Criterion D or CRHR Criterion 4 cannot be avoided, archaeological data recovery would be carried out in the portions of affected significant sites that would be impacted. A data recovery plan would be prepared, reviewed by the appropriate agencies, and then implemented in order to recover an adequate sample of cultural remains that can be used to address important eligibility research questions for CRHR Criterion 4 or NRHP Criterion D. Archaeological data recovery would involve scientific excavations; identification of recovered cultural and ecological remains; cataloging, scientific analysis, and interpretation of recovered materials; and preparation of a scientific technical report that describes the methods and results of the data recovery program.
- Reports of any excavations at archaeological sites would be filed with the BLM and the appropriate Information Center of the California Historical Resources Information System.

APM CR-4b. Implement Measures to Minimize Impacts on Significant Buildings and Structures. Prior to construction and during construction, the applicant would implement the following measures to minimize unavoidable impacts on significant buildings and structures:

- Locate proposed project facilities to minimize effects on significant buildings or structures.
- If impacts on significant buildings or structures cannot be avoided, document significant architectural and engineering attributes consistent with the documentation standards of the National Park Service Historic American Buildings Survey/Historic American Engineering Record.
- File reports and other documentation with the BLM, the National Park Service, if appropriate, and appropriate Information Center of the California Historical Resources Information System.

APM CR-5. Prepare and Implement a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan. During construction it is possible that previously unknown archaeological or other cultural resources or human remains could be discovered. Prior to construction, the applicant would prepare a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan to be implemented if an unanticipated discovery is made. At a minimum the plan would detail the following elements:

- Worker and supervisor training in the identification of cultural remains that could be found in the proposed project area, and the implications of disturbance and collection of cultural resources pursuant with the Archaeological Resources Protection Act of 1979
- Worker and supervisor response procedures to be followed in the event of an unanticipated discovery,

including appropriate points of contact for professionals qualified to make decisions about the potential significance of any find

- Identities of persons authorized to stop or redirect work that could affect the discovery, and their on-call contact information
- Procedures for monitoring construction activities in archaeologically sensitive areas
- A minimum radius around any discovery within which work would be halted until the significance of the resource has been evaluated and mitigation implemented as appropriate
- Procedures for identifying and evaluating the historical significance of a discovery
- Procedures for consulting Native Americans when identifying and evaluating the significance of discoveries involving Native American cultural materials
- Procedures to be followed for treatment of discovered human remains per current state law and protocol developed in consultation with Native Americans

APM CR-6. Inadvertent Discovery of Human Remains. Any human remains discovered during project activities in California would be protected in accordance with current state law, specifically Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Assembly Bill 2641. If human remains determined not to be Native American are unclaimed, they would be treated under the appropriate State of Nevada statutes, including but not limited to Nevada Revised Statutes Chapter 440 and the regulations of the applicable land management agency. In the event that human remains are recovered on private lands, the landholder would have the right to designate the repository for the remains if they are determined not to be Native American or if their family affiliation cannot be determined.

The provisions of the Native American Grave Protection and Repatriation Act are applicable when Native American human remains are found on federal land (BLM land in California and Nevada). The discovery of human remains would be treated as defined in the Construction Monitoring and Unanticipated Cultural Resources Discovery Plan.

APM CR-7. Native American Participation. Prior to construction, BLM would consult with Native Americans identified by the NAHC as having cultural ties to particular areas of the proposed project. Native Americans would be invited to participate in significance evaluations and data recovery excavations at archaeological sites with Native American cultural remains, as well as in monitoring during project construction. Native Americans would be consulted to develop a protocol for working with each group should human remains affiliated with that group be encountered during project activities.

Geology, Soils, Minerals, and Paleontology

Mitigation Measures

MM GEO-1: Monitor and Mitigate Damage to Tower Structures. SCE will contact the California Department of Water Resources and the Nevada Division of Water Resources on an annual basis to determine if groundwater withdrawals pose a potential for threatening to cause ground subsidence within the project area. If physical evidence proves groundwater withdrawals are threatening tower locations, SCE will develop a plan, following their operations and maintenance policies, to mitigate potential damage to tower structures using standard foundation remediation techniques available.

MM GEO-2: Geotechnical Engineering Study. The applicant will prepare a geotechnical engineering study prior to the final project design to identify site-specific geological conditions and potential geologic hazards. The

data collected from the study will be used to guide sound engineering practices and to mitigate potential geologic hazards.

MM GEO-3: Preparation and Implementation of SWPPP. The applicant will prepare a SWPPP for review and approval by the Lahontan Regional Water Quality Control Board (Region 6) and the Clark County Stormwater Quality Management Committee that addresses construction and post-construction project-related ground disturbances and associated erosion. The plan will provide the necessary engineering controls and procedures to minimize impact to the ground surface caused by construction, operation, and maintenance activities. A copy of the approved plan will also be submitted to the CPUC.

MM GEO-4: Expansive Soils Mitigation. The applicant will prepare a geotechnical study of the areas of expansive soil(s) identified in APM GEO-1 to develop appropriate design and mitigation measures prior to construction.

Applicant Proposed Measures

APM GEO-1: Geotechnical Engineering and Engineering Geology Study. Prior to final design of substation facilities and transmission and subtransmission line tower foundations, a combined geotechnical engineering and engineering geology study would be conducted to identify site-specific geologic conditions and potential geologic hazards in sufficient detail to support sound engineering practices.

APM GEO-2: Recommended Practices for Seismic Design of Substations. For new substation construction, specific requirements for seismic design would be followed based on the Institute of Electrical and Electronics Engineers Standard 693, "Recommended Practices for Seismic Design of Substations," which includes probabilistic earthquake hazard analysis. Other project elements would be designed and constructed in accordance with the appropriate industry standards, as well as good engineering and construction practices and methods.

APM GEO-3: Project Construction Stormwater Pollution Prevention Plan Protection Measures Regarding Soil Erosion/Water Quality. Transmission line and substation construction activities would be conducted in accordance with the soil erosion/water quality protection measures to be specified in the project construction stormwater pollution prevention plan (SWPPP). New access roads would be designed to minimize ground disturbance from grading. They would follow natural ground contours as closely as possible, and would include specific features for road drainage. Measures could include water bars, drainage dips, side ditches, slope drains, and velocity reducers. Where temporary crossings would be constructed, they would be restored and repaired as soon as possible after completion of the discrete action associated with construction of the line in the area.

APM PALEO-1: Retention of Paleontologist and Preparation of a Paleontological Resource Management Plan. Prior to construction, a certified paleontologist would be retained by SCE to supervise monitoring of construction excavations and to produce a Paleontological Resource Management and Monitoring Plan (PRMMP) for the proposed project. This PRMMP would be prepared and implemented under the direction of the paleontologist and would address and incorporate APMs PALEO-2 through PALEO-8. Paleontological monitoring would include inspection of exposed rock units and microscopic examination of matrix to determine whether fossils are present. The monitor would have authority to temporarily divert grading away from exposed fossils in order to recover the fossil specimens. More specific guidelines for paleontological resource monitoring could be found in the PRMMP.

APM PALEO-2: Pre-construction Paleontological Field Survey. The paleontologist and/or his or her designated representative would conduct a pre-construction field survey of the project area underlain by Tertiary rock units and older alluvium. Results of the field inventory and associated recommendations would be incorporated into the PRMMP.

APM PALEO-3: Worker Environmental Awareness Program (see BIO-6, CR-2b, W-11). A Worker

Environmental Awareness Program would be provided to construction supervisors and crew for awareness of requirements regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities.

APM PALEO-4: Construction Monitoring. Ground-disturbing activities would be monitored on a part-time or full-time basis by a paleontological construction monitor only in those parts of the project area where these activities would disturb previously undisturbed strata in rock units of moderate and high sensitivity. Quaternary alluvium, colluvium, and Quaternary landslide deposits have a low paleontological sensitivity level and would be spot-checked on a periodic basis to ensure that older underlying sediments were not being penetrated. Monitoring would not be implemented in areas underlain by younger alluvium unless these activities had reached a depth 5 feet below the present ground surface and fine-grained strata were present. Ground-disturbing activities in areas underlain by rock units of low sensitivity would be monitored on a quarter-time basis or spot-checked if fine grained strata were present.

APM PALEO-5: Recovery and Testing. If fossils were encountered during construction, construction activities would be temporarily diverted from the discovery and the monitor would notify all concerned parties and collect matrix for testing and processing as directed by the project paleontologist. In order to expedite removal of fossil-bearing matrix, the monitor may request heavy machinery to assist in moving large quantities of matrix out of the path of construction to designated stockpile areas. Construction would resume at the discovery location once the necessary matrix was stockpiled, as determined by the paleontological monitor. Testing of stockpiles would consist of screen washing small samples to determine if important fossils were present. If such fossils were present, the additional matrix from the stockpiles would be water screened to ensure recovery of a scientifically significant sample. Samples collected would be limited to a maximum of 6,000 pounds per locality.

APM PALEO-6: Monthly Progress Reports. The project paleontologist would document interim results of the construction monitoring program with monthly progress reports. Additionally, at each fossil locality, field data forms would record the locality, stratigraphic columns would be measured, and appropriate scientific samples would be submitted for analysis.

APM PALEO-7: Analysis of and Preparation of Final Paleontological Resource Recovery Report. The project paleontologist would direct identification, laboratory processing, cataloging, analysis, and documentation of the fossil collections. When appropriate, and in consultation with SCE, splits of rock or sediment samples would be submitted to commercial laboratories for microfossil, pollen, or radiometric dating analysis. After analysis, the collections would be prepared for curation (see APM PALEO-8). A final technical report would be prepared to summarize construction monitoring and present the results of the fossil recovery program. The report would be prepared in accordance with SCE, Society of Vertebrate Paleontology guidelines, and lead agency requirements. The final report would be submitted to SCE, the lead agency, and the curation repository.

APM PALEO-8: Curation. Prior to construction, SCE would enter into a formal agreement with a recognized museum repository, and would curate the fossil collections, appropriate field and laboratory documentation, and final Paleontological Resource Recovery Report in a timely manner following construction.

Hazards, Health, and Safety

Mitigation Measures

MM HAZ-1: Worker Health and Safety and Environmental Training and Monitoring Program. Prior to construction, the applicant will conduct a worker safety and environmental training program. As part of the program, the applicant will develop and implement a Health and Safety Plan. The Health and Safety Plan should address all potential situations that workers could encounter during construction and maintenance, including safety issues that may be unique to any of the alternatives. The Health and Safety Plan, at minimum, must

require that first aid kits be stored in each construction vehicle and that a worker trained in first aid be included in each work group. The purpose and goal of the worker safety and environmental training will be to communicate project-related environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and BMPs, to all field and construction personnel prior to the start of construction. Training will also encompass environmental training related to road designations, speed limits, and restrictions on camping within the surrounding Boulder City Conservation Easement to ensure compatibility with neighboring land uses, promote "good neighbor" policies, and institute best management practices for construction. SCE will also conduct health and safety training for Operation and Maintenance activities.

MM HAZ-2: Comply with FAA Requirements Upon Construction of the SNSA. The applicant will comply with all FAA requirements upon construction of the SNSA.

MM HAZ-3: Agency Coordination and Approvals. Before initiating the Phase I Environmental Site Assessment, site investigation under the Soil Management Plan, and/or any remediation work, the applicant will develop and submit a work plan to the appropriate federal, state, and local regulatory authority to oversee hazardous waste investigations or cleanups. No work will begin without approval of the appropriate regulatory authorities. The applicant will submit results of all analytical reports to the appropriate regulatory authorities in a report that summarizes the sampling results in reference to regulatory standards. The applicant will submit all closure certification or remediation approval reports to the appropriate regulatory authorities.

MM HAZ-4: Disposal of Demolition Materials. All debris generated during project-related demolition of structures, buildings, asphalt, or concrete-paved surface areas must be tested for the presence of hazardous chemicals, mercury, asbestos, and any other materials that may be deemed hazardous before disposal. The applicant will ensure that the materials are properly disposed of depending on the sampling results.

MM HAZ-5: Backfill Material. If backfill material is used, it will be sampled and determined to be contaminant-free before it is used to fill excavations.

MM HAZ-6: EPA Identification Number. If it is determined that hazardous waste will be generated during construction, the applicant will obtain an EPA Identification Number before construction begins. Before construction begins, the applicant will also determine whether the treatment or the handling or the storing of hazardous materials will require authorization of the local Certified Unified Program Agency (CUPA). If necessary, the applicant must receive authorization from the local CUPA before construction begins.

Applicant Proposed Measures

APM HAZ-1: Phase I Environmental Site Assessment. A Phase I Environmental Site Assessment would be performed at each new or expanded substation location and along newly acquired transmission or subtransmission line ROWs. The Phase I Environmental Site Assessment would include an electronic records search of federal, state, and local databases. The electronic records search would be contracted to a company which specializes in this type of work and who would produce a comprehensive report (Report) for the new or expanded ROW. The Report is used to identify sites located on federal, state, and local government agency databases which may have the potential to impact the proposed project.

The Report would be reviewed and, based on such review, any potential areas of concern along the ROW would be identified for further assessment. In addition, a Phase I Environmental Site Assessment which is compliant with ASTM 1927-05 (ASTM 2005) would be performed on all property to be acquired.

Based on the results of the Phase I Environmental Site Assessment, additional assessment, characterization, and remediation of potential or known subsurface impacts may be conducted prior to construction activities. Such remediation could include the relocation of transmission line structures as necessary to avoid impacted areas, or the removal and disposal of impacted soils and/or groundwater according to applicable regulations.

APM HAZ-2: Hazardous Materials and Waste Handling Management. Hazardous materials used and stored on-site for the proposed construction activities, as well as hazardous wastes generated on-site as a result of the proposed construction activities, would be managed according to the specifications outlined below as follows:

- Hazardous Materials and Hazardous Waste Handling Program: A Project-specific hazardous materials management and hazardous waste management program would be developed prior to initiation of the Project. The program would outline proper hazardous materials use, storage and disposal requirements, as well as hazardous waste management procedures. The program would identify types of hazardous materials to be used during the Project and the types of wastes that would be generated.

  All Project personnel would be provided with Project-specific training. This program would be developed to ensure that all hazardous materials and wastes were handled in a safe and environmentally sound manner. Hazardous wastes would be handled and disposed of according to applicable rules and regulations. Employees handling wastes would receive hazardous materials training and shall be trained in: hazardous waste procedures; spill contingencies; waste minimization procedures; and TSDF training in accordance with OSHA Hazard Communication Standard and 22 CCR. SCE would use landfill facilities that are authorized to accept treated wood pole waste in accordance with HSC 25143.1.4(b).

- Construction Stormwater Pollution Prevention Plan: A Project-specific construction SWPPP would be prepared and implemented prior to the start of construction of the transmission line and substations. The SWPPP would use BMPs to address the storage and handling of hazardous materials and sediment runoff during construction activities (California Stormwater Quality Association 2004).

- Transport of Hazardous Materials: Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline), and oil and lubricants for equipment. Containers used to store hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with USDOT, CalTrans, and NDOT regulations. A qualified transporter would be selected to comply with federal and state transportation regulations.

- Fueling and Maintenance of Construction Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Vehicles and equipment would be refueled on-site or by tanker trucks. Procedures would include the use of drop cloths made of plastic, drip pans, and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground.

  Refueling stations would be located in designated areas where absorbent pads and trays would be available. The fuel tanks would also contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials such as paints, solvents, and penetrants would be kept in an approved locker or storage cabinet.

- Fueling and Maintenance of Helicopters: Written procedures for fueling and maintenance of helicopters would be prepared prior to construction. Helicopters would be refueled at helicopter staging areas or local airports. Procedures would include the use of drop cloths made of plastic, drip pans, and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling areas would be located in designated areas where absorbent pads and trays are available.

- Emergency Release Response Procedures: An Emergency Response Plan detailing responses to

releases of hazardous materials would be developed prior to construction activities. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled, would be immediately reported if the spill has entered a navigable water, stream, lake, wetland, or storm drain if the spill impacted any sensitive area, including conservation areas and wildlife preserved, or if the spill causes injury to a person or threatens injury to public health. All construction personnel, including environmental monitors, would be aware of state and federal emergency response reporting guidelines.

APM HAZ-3: Soil Management Plan. A Soil Management Plan would be developed and implemented for construction of the proposed project. The objective of the Soil Management Plan is to provide guidance for the proper handling, on-site management, and disposal of impacted soil that might be encountered during construction activities. The plan would include practices that are consistent with the California Title 8, OSHA regulations, as well as appropriate remediation standards that are protective of the planned use. Appropriately trained professionals would be on-site during preparation, grading, and related earthwork activities to monitor soil conditions encountered. The Soil Management Plan would provide guidelines for the following:

- Identifying impacted soil
- Assessing impacted soil
- Soil excavation
- Impacted soil storage
- Verification sampling
- Impacted soil characterization and disposal

In the event that potentially contaminated soils were encountered within the footprint of construction, soils would be tested and stockpiled. In California, the CUPA would determine whether further assessment is warranted. In Nevada, the NDEP BCA Spill Hotline (888-331- 6337) would be contacted if the quantity of impacted material is greater than 3 cubic yards.

APM HAZ-4: Fire Management Plan. The Fire Management Plan developed by SCE and presented in this PEA as Appendix K would be implemented (National Fire Association 1994).

APM HAZ-5: Spill Prevention, Countermeasure, and Control Plan and Hazardous Materials Business Plan.

Spill Prevention, Countermeasure, and Control Plan. In accordance with Title 40 of the CFR, Part 112, SCE would prepare a SPCC Plan for proposed and/or expanded substations. The plans would include engineered and operational methods for preventing, containing, and controlling potential releases, and provisions for quick and safe cleanup.

Hazardous Materials Business Plans. Prior to operation of new or expanded substations, SCE would prepare or update and submit, in accordance with Chapter 6.95 of the CHSD, and Title 22 CCR, a HMBP. The required documentation would be submitted to the designated CUPA in California. (An HMBP or similar documentation is not required by the state of Nevada.) The HMBPs would include hazardous materials and hazardous waste management procedures, and emergency response procedures including emergency spill cleanup supplies and equipment.

Hydrology and Water Quality

Mitigation Measures

MM W-1: Erosion Control Plan and Compliance with Water Quality Permits. The applicant will employ a professional engineer to develop and implement an Erosion Control Plan and monitor construction activities to ensure compliance with federal and state water quality permits. The Erosion Control Plan will comply with or exceed BMPs commonly used on projects in the California/Nevada area and those outlined in county plans. Copies of the Erosion Control Plan will be submitted to CPUC. MM W-1 will also serve to strengthen APMs W-1, W-4, and W-5 to include all intermittent and ephemeral streams and desert washes as depicted on USGS and NHD mapping and those identified during the applicant's field reconnaissance surveys. The intent of this MM is to minimize the impact of construction on surface water quality in the basins surrounding the proposed project. This MM will apply to all construction sites for the duration of construction and restoration activities.

MM W-2: Water Use Maximum. The applicant has estimated using a maximum of between 32,000 and 40,000 gpd of water for the construction phase of the project. This translates to between 30.6 and 38.3 acre-ft/yr. The applicant has stated that no water would be used during the operational phase of the project. Under MM W-2, the applicant will limit construction phase water use to a maximum of 45 acre feet per annum. The applicant will not use water during the operational phase of the project. Emergency water uses, including fire suppression, are excluded from these maxima. If the applicant requires additional water for construction or operation of the project, the applicant must submit a request to the CPUC and the BLM.

MM W-3: Onsite Flow Model and Channel System. The applicant will employ a hydrologist to develop an Onsite Flow Model to predict any alteration in flow path that would result from construction and operation and maintenance of the proposed project. The applicant will also develop a channel system to prevent erosion and to mitigate altered flow paths. The Onsite Flow Model and channel system design will be submitted to the CPUC for review at least three months prior to the start of construction. The intent of this MM is to ensure that stormwater runoff will not cause flooding. The applicant will monitor the channel system throughout construction to assess effectiveness and ensure compliance with the designed system. Additionally, the applicant will coordinate with BLM and CPUC on model parameters and assumptions used in modeling.

MM W-4: Dry Lake Restoration Plan. The applicant will employ a hydrologist and a restoration specialist to develop a Restoration Plan for disturbance of dry lake beds. The proposed project would cross through Ivanpah Lake. Construction would disturb the flat dry lake bed surface that is used for recreation. The intent of this MM is to ensure that the dry lake bed is restored to preconstruction conditions. The BLM will review the plan prior to the start of construction. The BLM would also assess the success of the restoration and determine whether the Ivanpah Lake surface had been restored to preconstruction conditions. In addition, the applicant will coordinate with the BLM the submission of the plan to the CDFG for CDFG review. The applicant will provide the CPUC with a copy of the Restoration Plan.

MM W-5: Historical Hydrological Model of Alluvial Fan. In the PEA, the applicant completed a historical hydrological model on site area alluvial fan(s) based on similar work on alluvial fans performed near Laughlin, Nevada (House 2005). The applicant extrapolated the data by applying the methodology from the Laughlin area model to the California portion of the project area. This study will be used to determine the active and inactive portions of the alluvial fans in the site area relative to surface water, sediment transport, and flash flooding. Where feasible, the applicant will locate towers, substations, and other permanent site features on inactive portions of the alluvial fan to minimize risk associated with flash flooding and alluvial fan failure.

MM W-6: DESCP, SWPPP, and Grading and Storm Water Management Plan for Ivanpah Substation. The applicant will be required to submit copies of the approved Drainage, Erosion, and Sediment Control Plan (DESCP) and Storm Water Pollution Prevention Plan (SWPPP) to CPUC three months prior to the start of construction, and implement those plans as part of the EITP.

Applicant Proposed Measures

APM W-1: Avoid Stream Channels. Construction equipment would be kept out of flowing stream channels.

APM W-2: Erosion Control and Hazardous Material Plans. Erosion control and hazardous material plans would be incorporated into the construction bidding specifications to ensure compliance.

APM W-3: Project Design Features. Appropriate design of tower footing foundations, such as raised foundations and/or enclosing flood control dikes, would be used to prevent scour and/or inundation by a 100-year flood. Where floodplain encroachment is required by the CPUC and/or the BLM, and potential impacts require non-standard designs, hydrology/channel flow analysis would be performed.

APM W-4: Avoid Active Drainage Channels. Towers would be located to avoid active drainage channels, especially downstream of steep hillslope areas, to minimize the potential for damage by flash flooding and mud and debris flows.

APM W-5: Diversion Dikes. Diversion dikes would be required to divert runoff around a tower structure or a substation site if (a) the location in an active channel (or channels) could not be avoided; and (b) where there is a very significant flood scour/deposition threat, unless such diversion is specifically exempted by the CPUC and/or the BLM Authorized Officer.

APM W-6: Collect and Divert Runoff. Runoff from roadways would be collected and diverted from steep, disturbed, or otherwise unstable slopes.

APM W-7: Ditch and Drainage Design. Ditches and drainage devices would be designed to handle the concentrated runoff and located to avoid disturbed areas. They would have energy dissipations at discharge points that might include rip-rap, concrete aprons, and stepped spillways. Where diversion dikes are required to protect towers or other project structures from flooding or erosion, these dikes would be designed to avoid increasing the risk of erosion or flooding onto adjacent property.

APM W-8: Minimize Cut and Fill Slopes. Cut and fill slopes would be minimized by a combination of benching and following natural topography where possible.

APM W-9: Prepare and Implement an Approved SWPPP. As a part of the SWPPP, soil disturbance at tower construction sites and access roads would be the minimum necessary for construction and designed to prevent long-term erosion through the following activities: restoration of disturbed soil, re-vegetation, and/or construction of permanent erosion control structures. BMPs in the project SWPPP would be implemented during construction to minimize the risk of an accidental release.

APM W-10: Emergency Release Response Procedures. The Emergency Release Response Procedures developed pursuant to APM HAZ-1 would be maintained onsite (or in vehicles) during construction of the proposed project.

APM W-11: Conduct a Worker Environmental Awareness Program (see BIO-6, CR-2b, PALEO-3). A Worker Environmental Awareness Program (WEAP) would be conducted to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper BMP implementation, to all field personnel prior to the start of construction. This training program would emphasize site-specific physical conditions to improve hazard prevention. It would include a review of all site-specific plans, including but not limited to the project's SWPPP and Hazardous Substances Control and Emergency Response Plan. The applicant would document compliance and maintain a list of names of all construction personnel who had completed the training program.

APM W-12: Properly Dispose of Hazardous Materials. All construction and demolition waste, including trash and litter, garbage, and other solid waste, would be removed and transported to an appropriately permitted disposal facility. Petroleum products and other potentially hazardous materials would be removed and transported to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.

APM W-13: Identify Location of Underground Utilities Prior to Excavation. Prior to excavation, the applicant or its contractors would locate overhead and underground utility lines, such as natural gas, electricity, sewage, telephone, fuel, and water lines, or other underground structures that may reasonably be expected to be encountered during excavation work.

APM W-14: Prepare or Update Spill Prevention, Control, and Countermeasure (SPCC) Plans. The applicant would prepare or update SPCC plans for substations to minimize, avoid, and/or clean up unforeseen spill of hazardous materials during facility operations.

Land Use

Mitigation Measures

MM LU-1: Obtain Approval from Clark County and the City of Boulder City for Activities Outside of BLM-Designated Utility Corridors in the BCCE. Prior to construction, the applicant must consult with and obtain permission from Clark County and the City of Boulder City regarding construction outside of BLM-designated utility corridors in the BCCE. In addition, the applicant will comply with all land use restrictions, such as speed limits, in consultation with the BCCE, and will fully comply with the Amendment to the Interlocal Agreement, including Exhibit D. The applicant will submit a record of this consultation to the BLM and the CPUC prior to construction.

Applicant Proposed Measures

APM LU-1: Aeronautical Considerations. The applicant would submit notice to FAA electronically, in accordance with FAA procedures, and as far in advance of construction as possible.

Noise

Mitigation Measures

MM NOI-1: Conduct Construction Activities during Daytime Hours. The applicant will conduct construction activities only during daytime hours (7 a.m. to 7 p.m.) while in the vicinity of the Desert Oasis Apartment Complex.

MM NOI-2: Relocate Stationary Construction Equipment. The applicant will locate stationary construction equipment at a site location that is as far away from the Desert Oasis Apartment Complex as is feasible.

MM NOI-3: Turn off Idling Equipment. The applicant will turn off idling equipment when not in use.

MM NOI-4: Notify Adjacent Residences. The applicant will notify residents within 200 feet of the transmission line in advance of construction work.

MM NOI-5: Install Acoustic Barriers. The applicant will install acoustic barriers around stationary construction noise sources near sensitive receptors.

Applicant Proposed Measures

APM NOI-1: Compliance with Local Noise Ordinances. The proposed construction would comply with local noise ordinances. There may be a need to work outside the aforementioned local ordinances to take advantage of low electrical draw periods during the nighttime hours. The applicant would comply with variance procedures requested by local authorities if required.

APM NOI-2: Construction Equipment Working Order. Construction equipment would be in good working order.

APM NOI-3: Construction Equipment Maintenance. Construction equipment would be maintained per manufacturer's recommendations.

APM NOI-4: Construction Equipment Muffled. Construction equipment would be adequately muffled.

APM NOI-5: Construction Equipment Idling Minimized. Idling of construction equipment and vehicles would be minimized during the construction.

APM NOI-6: Hearing Protection for Workers. Workers would be provided appropriate hearing protection, if necessary, as described in the Health and Safety Plan.

Public Services and Utilities

Mitigation Measures

MM PUSVC-1: Construction Waste Disposal Plan. The applicant will prepare a Construction Waste Disposal Plan for all nonhazardous wastes generated during construction of the proposed project and submit the plan to the BLM and the CPUC for review and approval no less than 30 days prior to start of construction. The plan will contain the following, at a minimum:

- Description of all nonhazardous solid and liquid construction wastes, including:
  - Estimated amounts to be disposed of in a landfill by weight or volume and
  - Estimated amounts that can be recycled or salvage by weight or volume;
- Recycling, salvage, and waste minimization/source reduction plans;
- Management methods to be used for each type of waste, including temporary on-site storage, housekeeping and best management practices to be employed, and methods of transportation and packaging; and
- Description and list of all contracts and plans made with waste contractors, landfills, and wastewater treatment facilities.

The applicant may refer to internal salvage and waste manuals in the Construction Waste Management Plan where applicable. The plan is necessary to ensure that solid waste is recycled or salvaged to the maximum extent possible. In addition, the applicant would need to observe the Nevada Legislature's goal to recycle 25 percent of total solid waste generated within each municipality of Nevada.

MM PUSVC-2: Notification of Utility Service Interruption. If a utility service interruption is known to be unavoidable, the applicant will notify by postal mail members of the public, the jurisdiction, and the service providers who would be affected. The applicant will also publish notices in newspapers circulated in each jurisdiction that would be affected. The postal mail and newspaper notices will specify the estimated duration of each service interruption and be mailed or published no later than seven days prior to the first interruption. Copies of the notices will be provided to the BLM and CPUC no later than 30 days following notification.

Applicant Proposed Measures

APM PUSVC-1: Work Around High Pressure Pipelines. No mechanical equipment will be permitted to operate within 3 feet of the high-pressure pipelines, and work within 3 feet must be done by hand or as otherwise directed by the pipeline company.

APM PUSVC-2: Monitoring by Pipeline Companies. A representative of applicable owners and operators of major pipeline companies must observe the excavation around or near their facilities to ensure protection and to record pertinent data necessary for operations.

Recreation

Mitigation Measures

MM REC-1: Limit Construction Workspace in Wildlife and Recreational Areas. The applicant will not site extra workspace areas such as contractor yards in Recreation Areas to minimize impacts on recreational users during construction. In addition, the applicant will coordinate with the BLM, as well as organizers of BLM-permitted races and events in the project area, to ensure that project construction will not interrupt events.

MM REC-2: Notify the Nevada Department of Wildlife of Any Road Closures During Hunting Season. To allow access for hunters in the area, the applicant will not close the southern right-of-way of the McCullough Pass during construction. The applicant will notify NDOW of any road closures during hunting season at least 30 days prior to closure.

MM REC-3: Display Appropriate "Closed" Signage for New Spur and Access Roads Constructed. The applicant will coordinate with BLM Field Offices on displaying appropriate "closed" signage at the entrance to new spur roads to tower locations and access roads. This includes temporary signs during the construction phase of the project and permanent signs and/or vehicle barriers that will close the spur routes to public travel.

Applicant Proposed Measures

APM REC-1: Recreation Area Closures. When temporary short-term closures to recreational areas are necessary for construction activities, the applicant would coordinate those closures with recreational facility owners. To the extent practicable, the applicant would schedule construction activities to avoid heavy recreational use periods (e.g., holidays or tournaments). The applicant would post notice of the closure on site 14 calendar days prior to the closure.

Transportation and Traffic

Mitigation Measures

MM TRANS-1: No Lane Closures on I-15 during Friday Peak Usage. The applicant will limit construction activities on Friday afternoon from noon to 10 p.m. so as not to require lane closures on I-15.

MM TRANS-2: Helicopter Flight Plan and Safety Plan. At least 30 days prior to construction of the project, the applicant will coordinate with the FAA for review and approval of any helicopter flight plans that would take place during construction and operation. The applicant will then provide information to the BLM and the CPUC

regarding the intended need and use of helicopters during construction and operation of the project, including the flight and safety plan; the number of days and hours that the helicopter would operate; the type and number of helicopters that would be used; the location, size, and number of staging areas for helicopter take off and landing; and written approval from property owners for use of helicopter staging areas. The applicant will review the helicopter flight and safety plan with the FAA and the CCDOA at least 30 days prior to the start of SNSA construction and resubmit the revised plan to the BLM and the CPUC.

MM TRANS-3: Traffic Control Plan. Prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

Applicant Proposed Measures

APM TRA-1: Obtain Permits. If any work requires modifications or activities within local roadway and railroad ROWs, appropriate permits will be obtained prior to the commencement of construction activities, including any necessary local permits and encroachment permits.

APM TRA-2: Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets and railroad operations.

APM TRA-3: Minimize Street Use. Construction activities will be designed to minimize work on, or use of, local streets.

(END OF ATTACHMENT A)