

4. Environmental Impact Assessment

4.4 Biological Resources

This section describes the biological resources in the Proposed Project area and discusses the affected environment and regulatory setting. Potential impacts and Applicant Proposed Measures are also discussed.

4.4.1 Environmental Setting

The Proposed Project is located within two minor physiographic regions of south-central California. Portions of the Proposed Project west of Poison Canyon on Highway 178 are located within the east-central Indian Wells Valley physiographic region. The Indian Wells Valley is bounded on the west by the Sierra Nevada Range, on the south by the El Paso Mountains, on the north by the Coso Range, and on the east by the Argus Range. Portions of the Proposed Project within and east of Poison Canyon are located in the northwestern Searles Valley physiographic region. The Searles Valley is bounded by the Argus Range on the west, the Slate Range on the north and east, and the Summit Range and Lava Mountains on the south. The floor of the Indian Wells Valley slopes gently toward China Lake and to the northwest of the Proposed Project area. The floor of Searles Valley slopes east from the Proposed Project area near Trona to Searles Lake. Poison Canyon connects the two valleys and drains eastward into Searles Valley.

The vegetation communities, wildlife communities, and sensitive habitats found in the Proposed Project area are presented in the sections below. Separate discussions are included for the proposed Downs Substation expansion location and the existing Inyokern-McGen-Searles No. 1 and No. 2 115 kV subtransmission line corridors. The 115 kV subtransmission line survey corridors are where six subtransmission poles would be replaced and where the fiber optic telecommunication cable installation activities would be conducted.

4.4.1.1 *Vegetation Communities*

Plant species lists are found in Appendix D to this PEA. Discussion of vegetation communities at the proposed Downs Substation expansion and on each of the Biological Survey Segments of the 115 kV subtransmission line survey corridors are presented separately.

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4.4.1.1.1 Proposed Downs Substation Expansion

Two vegetation communities are found at the location of the proposed Downs Substation expansion – a disturbed creosote bush-white bursage series, and a disturbed ruderal sink community ([Figure 4.4-1](#)). Creosote bush-white bursage communities cover approximately 3.8 acres (1.54 hectares) of the location, with the disturbed ruderal sink community covering approximately 0.7 acres (0.28 hectares) in the southeast corner.



Creosote bush-white bursage communities are upland communities typically found on alluvial fans, bajadas, and upland slopes with well-drained soils (picture at left shows this community at the Proposed Project). Creosote bush-white bursage communities have a two-tiered canopy with the taller tier standing less than 9.8 feet (3 meters) and an open ground-layer. Plant species found at the proposed Downs Substation expansion location are typical of a creosote bush-white bursage community

and include creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), cheesebush (*Hymenoclea salsola*), and golden cholla (*Cylindropuntia echinocarpa*).

The disturbed ruderal sink community (pictured at right) supports only non-native species such as Russian thistle (*Salsola tragus*), mustard (*Brassica tournefortii*), and other non-native thistles such as bull thistle (*Cirsium vulgare*).



4.4.1.1.2 115 kV Subtransmission Line Survey Corridors (Pole Replacement Locations and Fiber Optic Telecommunication Cable)

Three vegetation communities are found within the 115 kV subtransmission line corridors—creosote bush-white bursage series (some disturbed within the areas within the communities of Ridgecrest and Trona, and some undisturbed by many human activities apart from the existing 115 kV subtransmission lines), a community dominated by desert holly (*Atriplex hymenelytra*) and spiny hopsage (*Grayia spinosa*) (Atriplex/Grayia Community); and a rusty molly (*Kochia californica*)-dominated community (Kochia community). In addition, there are areas of un-vegetated or highly disturbed lands such as those found within the urbanized areas of Ridgecrest and Trona ([Table 4.4-1](#) and [Figures 4.4-3](#) through [4.4-6](#)).

CITY: COSTA MESA DIV: GROUP: ENV_CAD DBENV_CAD G:\ENV\CAD\CostaMesa\15200001\CA000752_0001 B01.dwg LAYOUT: 4.4-1 SAVED: 11/5/2010 7:39 AM ACADVER: 18.0S (LMS TECH) PAGES: 10 PLOTSTYLE: PLT\FULL.CTB PLOTTED: 11/8/2010 12:43 PM BY: LOVING, JEFFREY



MAP SOURCE: Google Earth Pro™ 2009, 35°37'18.17"N, 117°41'20.75"W

LEGEND



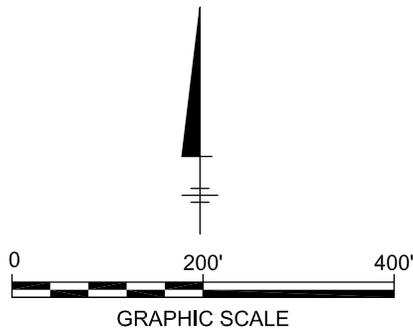
Downs Substation Expansion Area



Disturbed Creosote Bush Scrub

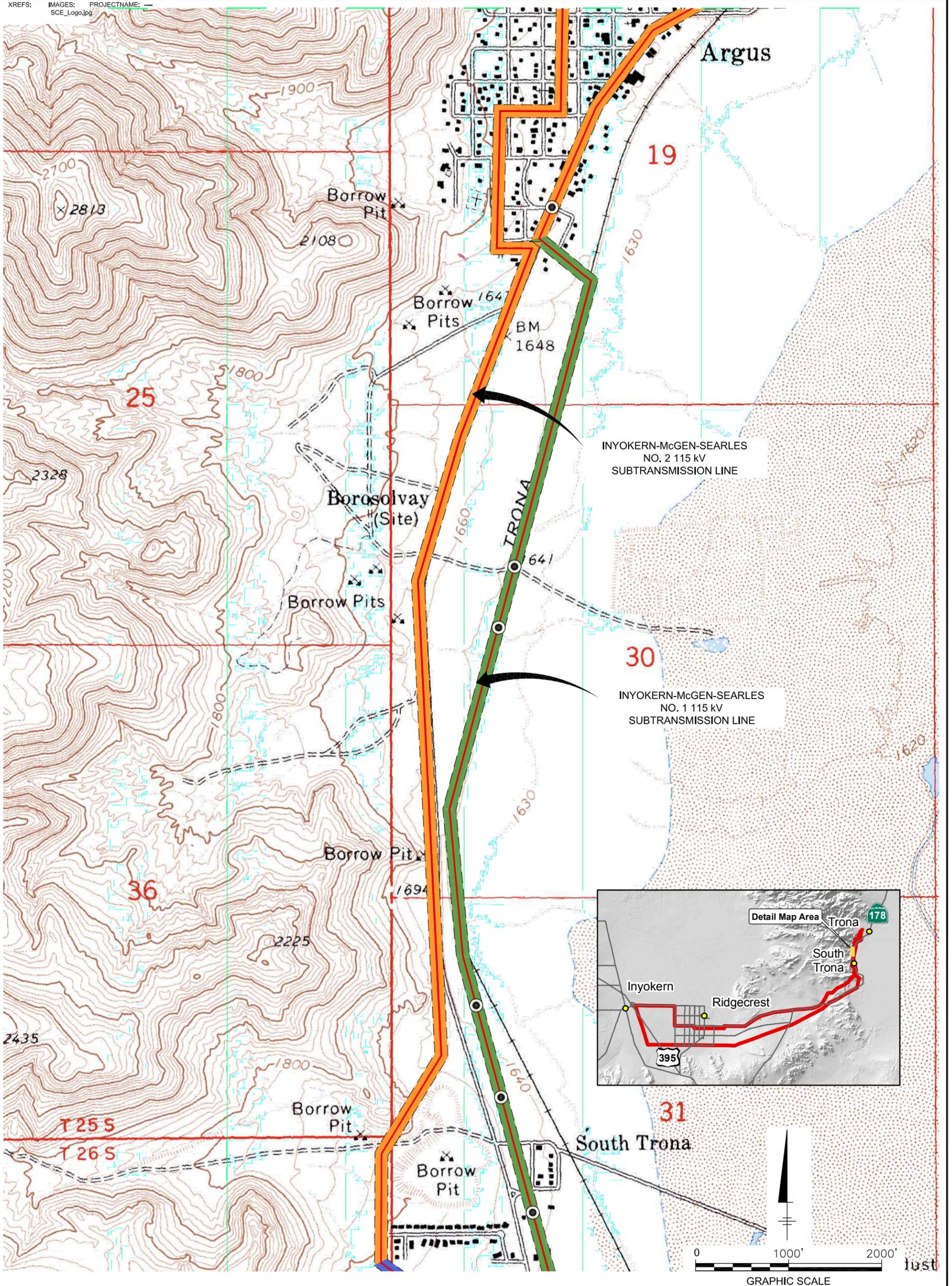


Ruderal



SOUTHERN CALIFORNIA EDISON Downs Substation Project Kern and San Bernardino Counties, California PROPONENT'S ENVIRONMENTAL ASSESSMENT	
SITE MAP AND VEGETATION COMMUNITIES	
 An EDISON INTERNATIONAL® Company	 FIGURE 4.4-1

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 SCE_Logo.jpg



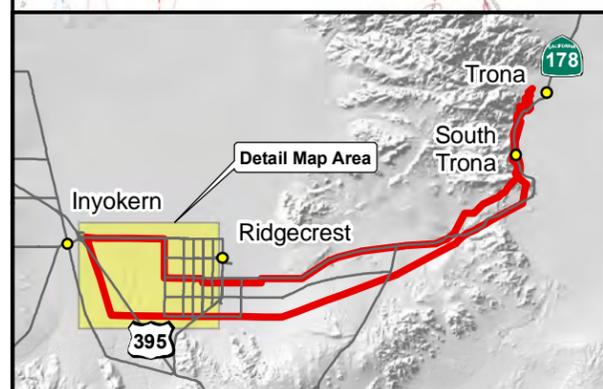
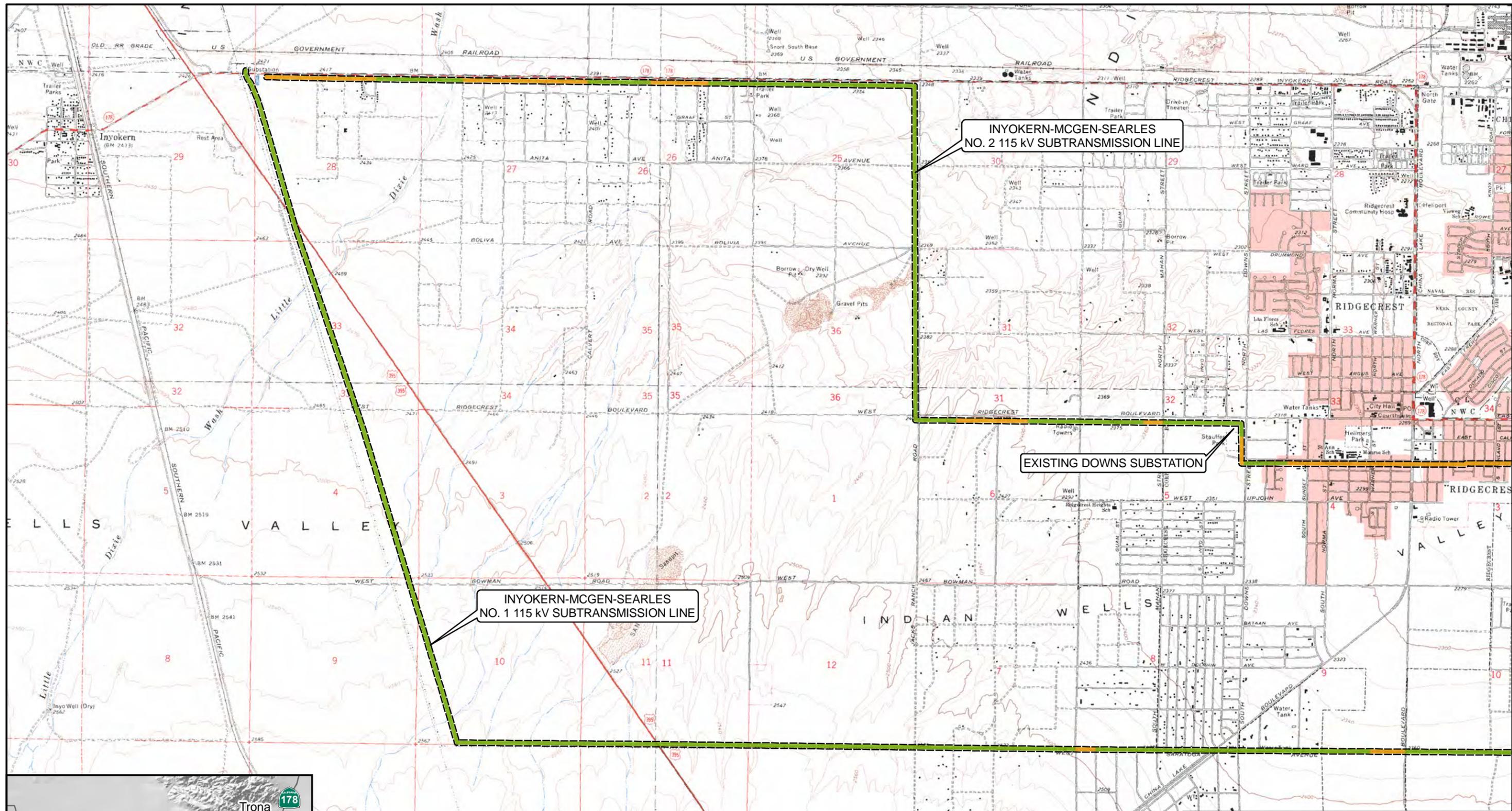
LEGEND	
	REPLACEMENT POLES
	115 kV SUBTRANSMISSION LINES
	SURVEY AREA
	UNVEGETATED/DEVELOPED
	KOCHIA COMMUNITY
	WASH

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 KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**POLE REPLACEMENT
 WITHIN VEGETATION AREAS**

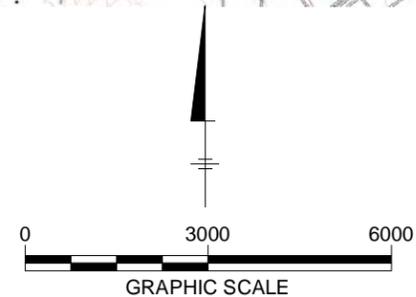


FIGURE
4.4-2



LEGEND

- SURVEY AREA
- VEGETATION COMMUNITIES**
- CREOSOTE-WHITE BURSAGE SERIES
- UNVEGETATED / DEVELOPED

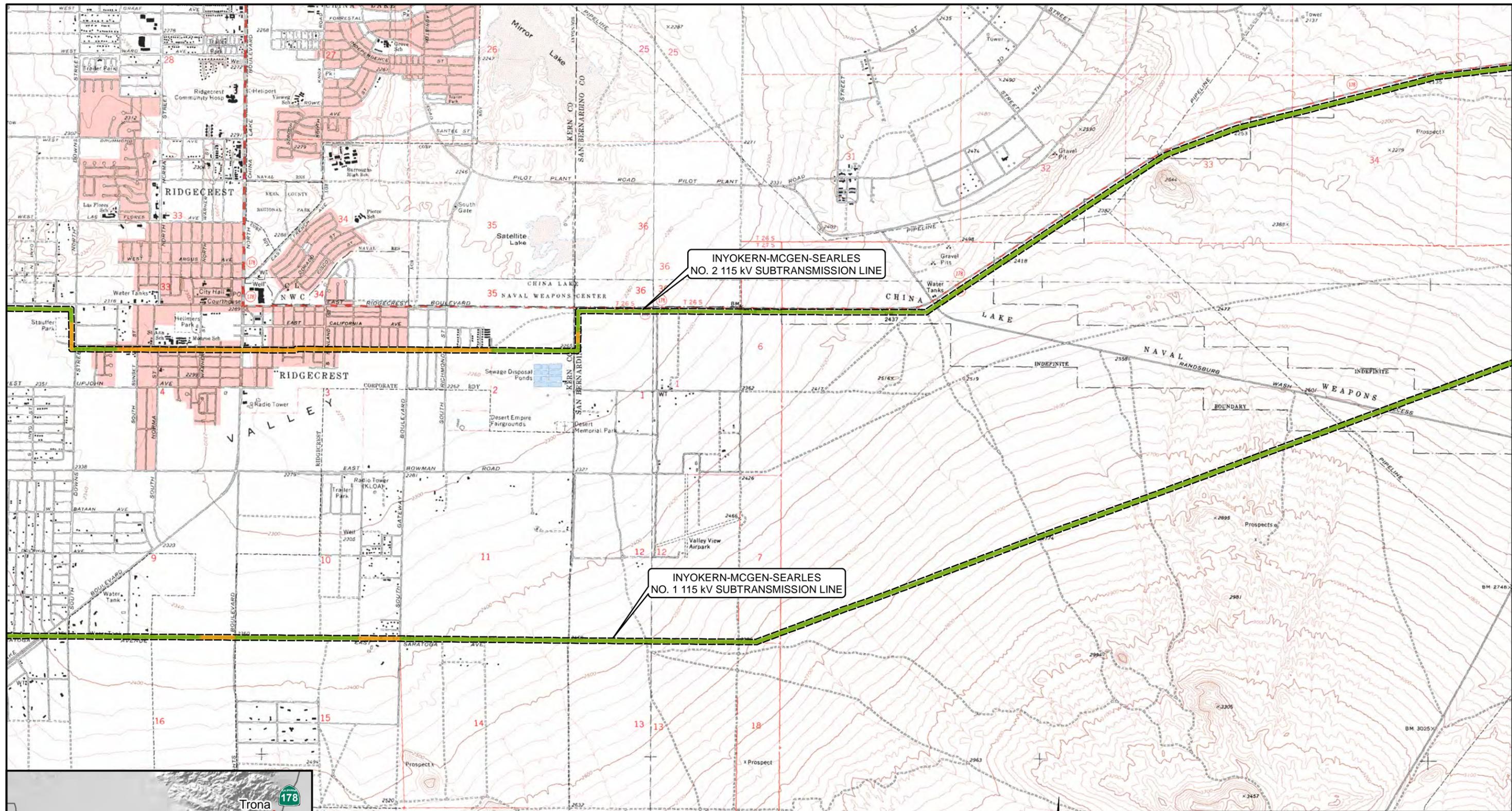


SOUTHERN CALIFORNIA EDISON
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KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**VEGETATION COMMUNITIES
(BIOLOGICAL SURVEY SEGMENT 1)**

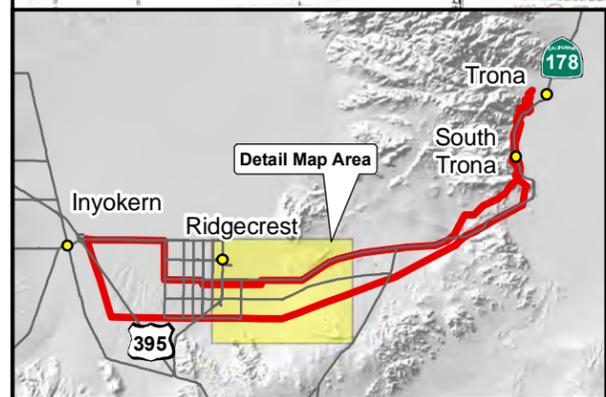
FIGURE
4.4-3

An EDISON INTERNATIONAL Company



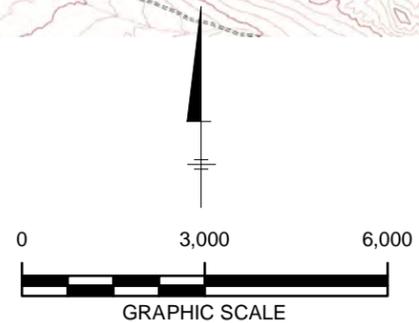
INYOKERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

INYOKERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



LEGEND

- SURVEY AREA
- VEGETATION COMMUNITIES**
- CREOSOTE-WHITE BURSAGE SERIES
- UNVEGETATED / DEVELOPED

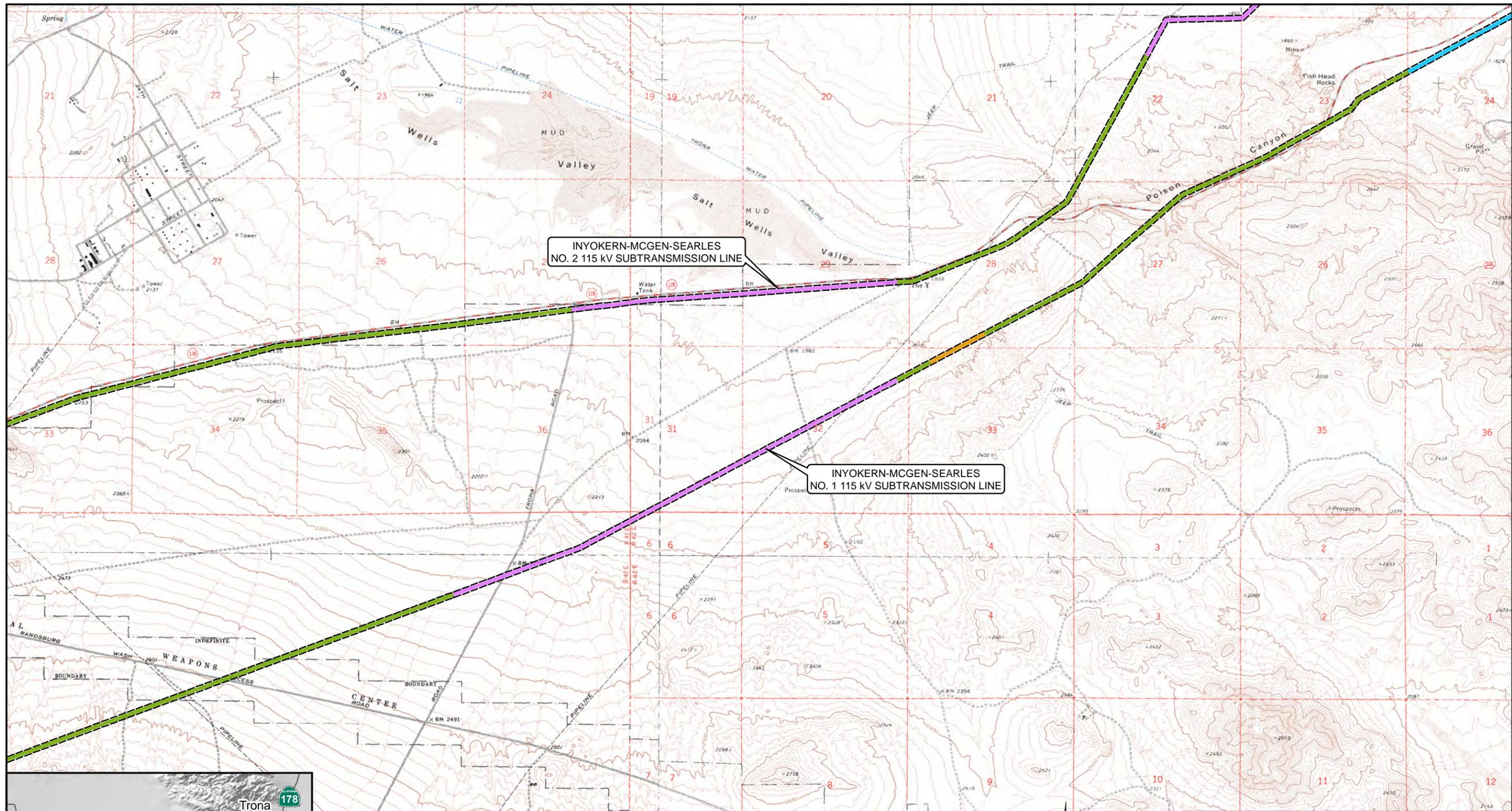


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PROPONENT'S ENVIRONMENTAL ASSESSMENT

**VEGETATION COMMUNITIES
(BIOLOGICAL SURVEY SEGMENT 2)**

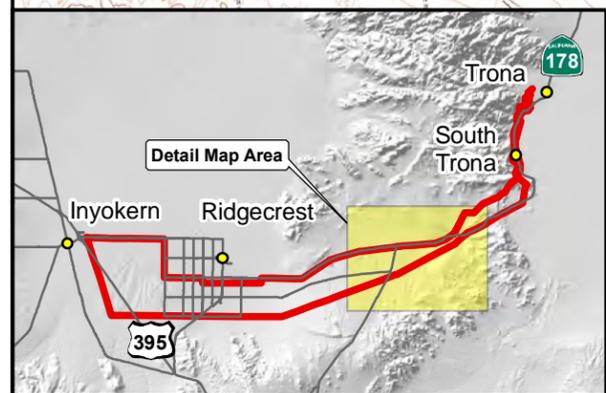






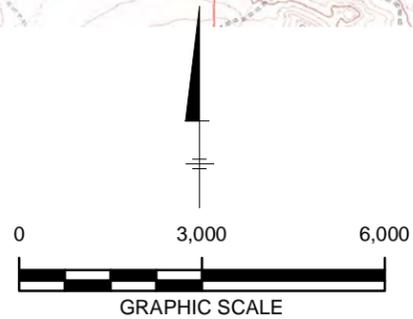
INYO KERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

INYO KERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



LEGEND

- SURVEY AREA
- VEGETATION COMMUNITIES**
- CREOSOTE-WHITE BURSAE SERIES
- UNVEGETATED / DEVELOPED
- ATRIPLEX-GRAYIA COMMUNITY
- WASH



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**VEGETATION COMMUNITIES
(BIOLOGICAL SURVEY SEGMENT 3)**

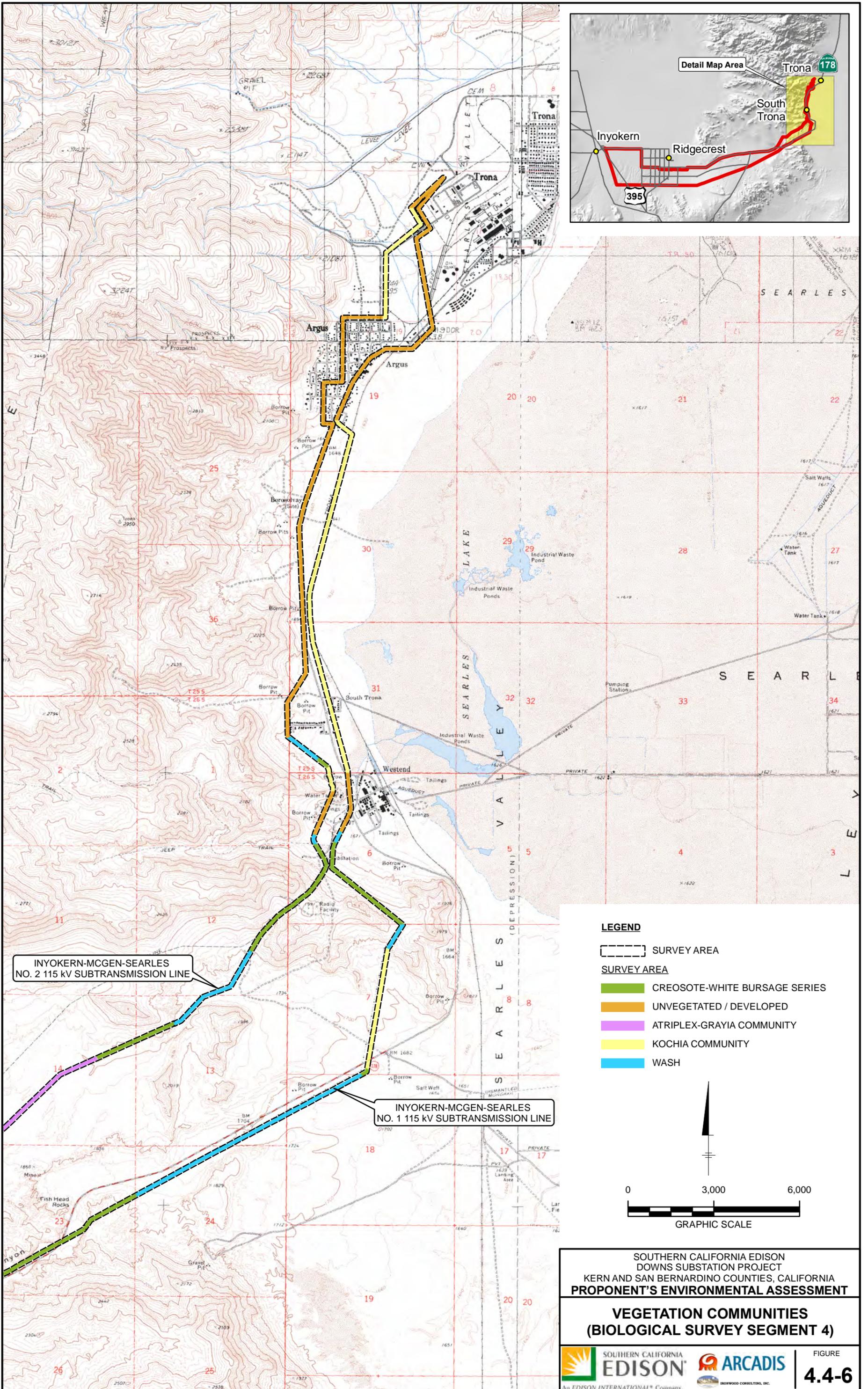


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IRONWOOD CONSULTING, INC.

FIGURE
4.4-5

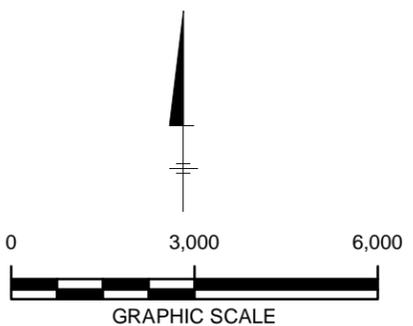


INYO KERN-MCGEN-SEARLES
NO. 2 115 KV SUBTRANSMISSION LINE

INYO KERN-MCGEN-SEARLES
NO. 1 115 KV SUBTRANSMISSION LINE

LEGEND

- SURVEY AREA
- SURVEY AREA**
- CREOSOTE-WHITE BURSA GE SERIES
- UNVEGETATED / DEVELOPED
- ATRIPLEX-GRAYIA COMMUNITY
- KOCHIA COMMUNITY
- WASH



SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**VEGETATION COMMUNITIES
(BIOLOGICAL SURVEY SEGMENT 4)**

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Table 4.4-1 Vegetation Communities along the 115 kV Subtransmission Survey Corridor (by approximate mileage/kilometers along line)

Biological Survey Segments	Creosote bush-white bursage	Alkali Sink Community	Mixed Saltbush Scrub Community	Disturbed or Unvegetated	Totals
Segment 1	15.9/25.4	0	0	4.2/6.7	20.1/32.1
Segment 2	11.7/18.8	0	0	3.2/5.1	14.9/23.9
Segment 3	9.6/15.4	0	5.3/8.5	1.0/1.6	15.9/25.5
Segment 4	4.3/6.9	4.2/6.7	1.0/1.6	5.3/8.5	14.8/23.8
Totals	41.5/66.6	4.2/6.7	6.3/10.1	13.7/21.9	65.7/105.3

Creosote bush-white bursage communities along the 115 kV subtransmission line survey corridors are dominated by creosote bush and white bursage. Other common indicator species include indigo bush (*Psoralea fremontii*), winterfat (*Krascheninnikovia lanata*), and desert senna (*Cassia armata*).

Near the intersection of Trona Road and Highway 178 in Biological Survey Segment 3, there is an area that is characterized by desert holly and spiny hopsage with few other species present.

Many areas of the Proposed Project in the western Searles Valley are dominated by rusty molly and support few other plant species.

Of the six subtransmission poles to be replaced, the northernmost pole is within an un-vegetated area of previous disturbance, while the remaining five are in a sparse rusty molly-dominated community ([Figure 4.4-2](#)).

4.4.1.2 Wildlife Communities

4.4.1.2.1 Proposed Downs Substation Expansion Location

Wildlife species common to areas of disturbed creosote bush-white bursage vegetation were observed at the proposed Downs Substation expansion location, such as American kestrel (*Falco sparverius*), white-crowned sparrow (*Zonotrichia leucophrys*), black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel (*Spermophilus beechyi*).

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Invertebrate species likely to occur at the proposed Downs Substation expansion location include *Elodes* beetles. Fish and amphibian species would not occur at the proposed Downs Substation expansion location because no permanent water sources are found on or adjacent to the location. Reptiles common along the existing 115 kV subtransmission line survey corridors include western whiptails (*Cnemidophorus tigris*) and side-blotched lizard (*Uta stansburiana*).

4.4.1.2.2 115 kV Subtransmission Line Survey Corridors

Wildlife species common to areas of undisturbed creosote bush-white bursage vegetation were observed along the 115 kV subtransmission line survey corridors. Invertebrate species likely to occur along the 115 kV subtransmission line survey corridors include *Elodes* beetles, and fairy shrimp such as alkali fairy shrimp (*Branchinecta mackini*), found in claypan areas throughout the Mojave Desert.

Fish and amphibian species are not likely to occur along the 115 kV subtransmission line survey corridors because no permanent water sources are found throughout these areas, with the exception of small areas of water in Poison Canyon not conducive to supporting amphibian species. Reptiles common in the 115 kV subtransmission line survey corridors include western whiptails and side-blotched lizards.

Bird species observed during surveys included mourning dove (*Zenaida macroura*), horned lark (*Eremophila alpestris*), cactus wren (*Camplorhynchus brunneicapillus*), white-crowned sparrow, common raven (*Corvus corax*), and Brewer's blackbird (*Euphagus cyanocephalus*). One loggerhead shrike (*Lanius ludivucianus*) was observed—this species is discussed further below in Section 4.4.1.3 Special Status Species.

Mammals observed included black-tailed jackrabbit, coyote (*Canis latrans*), white-tailed antelope ground squirrels (*Ammospermophilus leucurus*) and Mohave ground squirrel (*Xerospermophilus mohavensis*, which is discussed further in Section 4.4.1.3, Special Status Species).

The six subtransmission poles to be replaced are found in extremely sparse vegetation that likely supports fewer wildlife species than other areas along the 115 kV subtransmission line survey corridors.

4.4.1.3 Special Status Species

A special status species is a plant or wildlife species that is:

- Listed by the California Native Plant Society (CNPS);

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- Designated as either rare, threatened, or endangered by California Department of Fish and Game (CDFG) or the U.S. Fish and Wildlife Service (USFWS), and protected under either the California or Federal Endangered Species Acts;
- Candidate species or species being considered or proposed for listing under these same Acts;
- California species of concern;
- Species addressed in the West Mojave Plan (WEMO); and/or
- Species considered endangered, threatened, or rare pursuant to CEQA Guidelines, Section 15380.

The potential for occurrence of each plant or animal species was assessed using the following criteria:

Present	Species was observed during these surveys.
High	Both a historical record exists of the species within the boundaries of the site or its immediate vicinity (approximately 5 miles/8 kilometers) and the environmental conditions (including vegetation, soil type and elevation factors) associated with the species are found at the site.
Moderate	Either a historical record exists of the species within the immediate vicinity of the site or the environmental conditions associated with species are found at the site.
Low	No records exist of the species occurring within the site or its immediate vicinity and/or the environmental conditions associated with species presence are marginal within the site.
Absent	Species was not observed during focused surveys conducted within the site at an appropriate time and/or the environmental conditions associated with species presence do not exist on or adjacent to the site.

4.4.1.3.1 Proposed Downs Substation Expansion Location

No special status plants have been previously recorded or observed in the region of the proposed Downs Substation expansion location. Twelve special status animals have been previously

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recorded or observed in the region of the proposed Downs Substation expansion location ([Table 4.4-2](#)). Endangered or threatened species, and those species listed as having a moderate or higher potential to occur, are discussed here in greater detail.

4.4.1.3.1.1 Desert tortoise (*Gopherus agassizii*)

The desert tortoise is a federally- and state-listed threatened species. This species occurs in desert scrub, desert wash and Joshua tree habitats with appropriate soils for burrowing, and prefers areas of creosote scrub with abundant annual wildflowers. Focused surveys for desert tortoise conducted in April 2010 found no sign of this species on or adjacent to the existing Downs Substation. This species is assumed absent from the location for a period of at least one year (USFWS 2010).

4.4.1.3.1.2 Golden eagle (*Aquila chryseatos*)

Golden eagles are protected by the federal Bald and Golden Eagle Protection Act (BGEPA) and are a California Species of Special Concern (CSSC) and fully protected by the California Department of Fish and Game (CDFG). This species may nest in cliffs found within foraging distance from the existing Downs Substation, although there is no potential nesting habitat on or near Downs Substation. Golden eagles may periodically forage at Downs Substation, although they are more likely to forage in larger areas of open habitats outside the City of Ridgecrest.

Table 4.4-2 Special Status Species Potential for Occurrence – Downs Substation Expansion Area

Scientific Name Common Name	Status	Flowering Period and/or habitat	Potential for Occurrence
<i>Gopherus agassizii</i> desert tortoise	Federal: threatened State: threatened WEMO: covered	Desert scrubs and wash vegetation with friable soils	Absent
<i>Aquila chryseatos</i> golden eagle	Federal: BGEPA State: CSSC/FP WEMO: covered	Nesting on cliff faces; foraging in most habitats	Nesting absent, Foraging low
<i>Asio otus</i> long-eared owl	Federal: none State: CSSC WEMO: covered	Riparian areas with adjacent open lands	Low

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Scientific Name Common Name	Status	Flowering Period and/or habitat	Potential for Occurrence
<i>Athene cunicularia</i> burrowing owl	Federal: none State: CSSC WEMO: covered	Open habitats with existing burrows	High
<i>Lanius ludovicianus</i> loggerhead shrike	Federal: none State: CSSC WEMO: not covered	Desert scrub habitats	High
<i>Toxostoma lecontei</i> LeConte's thrasher	Federal: BCC State: CSSC WEMO: covered	Dense desert shrubs and cactus	Moderate
<i>Antrozous pallidus</i> pallid bat	Federal: none State: CSSC WEMO: roosts covered	Open dry habitats with rocks for roosting	Absent
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	Federal: none State: CSSC WEMO: roosts covered	Wetter habitats away from human disturbance	Absent
<i>Euderma maculatum</i> spotted bat	Federal: none State: CSSC WEMO: roosts covered	Open habitats with rocks or caves for roosting	Absent
<i>Myotis ciliolabrum</i> western small-footed myotis	Federal: none State: none WEMO: roosts covered	Open habitats with rocks or caves for roosting	Absent
<i>Myotis yumanensis</i> Yuma myotis	Federal: none State: none WEMO: roosts covered	Open habitats with rocks or caves for roosting	Absent
<i>Taxidea taxus</i> American badger	Federal: none State: CSSC WEMO: not covered	Open dry habitats with friable soils and rodents for prey	Low

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Scientific Name Common Name	Status	Flowering Period and/or habitat	Potential for Occurrence
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Federal: Proposed endangered State: threatened WEMO: covered	Most desert habitats with sandy or gravelly soils	Low
BGEPA = Bald and Golden eagle Protection Act CSSC/FP = California Species of Special Concern/Fully Protected			
<u>West Mojave Plan (WEMO) designations</u>			
Covered: Species is listed as covered in WEMO Not covered: Species is not listed as covered in WEMO			
Source: CNDDDB and CNPS for Inyokern SE, Ridgecrest South and Ridgecrest North West 7.5 minute USGS quadrangles			

4.4.1.3.1.3 Burrowing owl (*Athene cunicularia*)

The burrowing owl is covered under WEMO, protected under the Migratory Bird Treaty Act (MBTA) and is a CSSC. This species inhabits open dry grasslands and desert scrubs, and nests in burrows or other structures in the ground. Focused Phase I and II surveys conducted for this species in April 2010 found no sign of this species on or adjacent to Downs Substation. However, potential burrow locations such as California ground squirrel burrows are found at the location of the proposed Downs Substation expansion, so the potential exists for burrowing owls to move into the area in the future.

4.4.1.3.1.4 Loggerhead shrike (*Lanius ludovicianus*) and LeConte's thrasher (*Toxostoma lecontei*)

Loggerhead shrike and LeConte's thrasher are protected under the MBTA and are CSSC species. Both species are considered desert residents. These species inhabit various desert scrub and wash habitats throughout the Mojave Desert in California. A loggerhead shrike was observed during the focused Phase I and Phase II surveys approximately 3.5 miles (5.6 kilometers) northwest from the proposed Downs Substation expansion.

4.4.1.3.1.5 Mohave ground squirrel (*Xerospermophilus mohavensis*)

The Mohave ground squirrel was proposed to be listed as federally endangered on April 29, 2010 (Federal Register 2010) and is currently a state threatened species. This small ground squirrel

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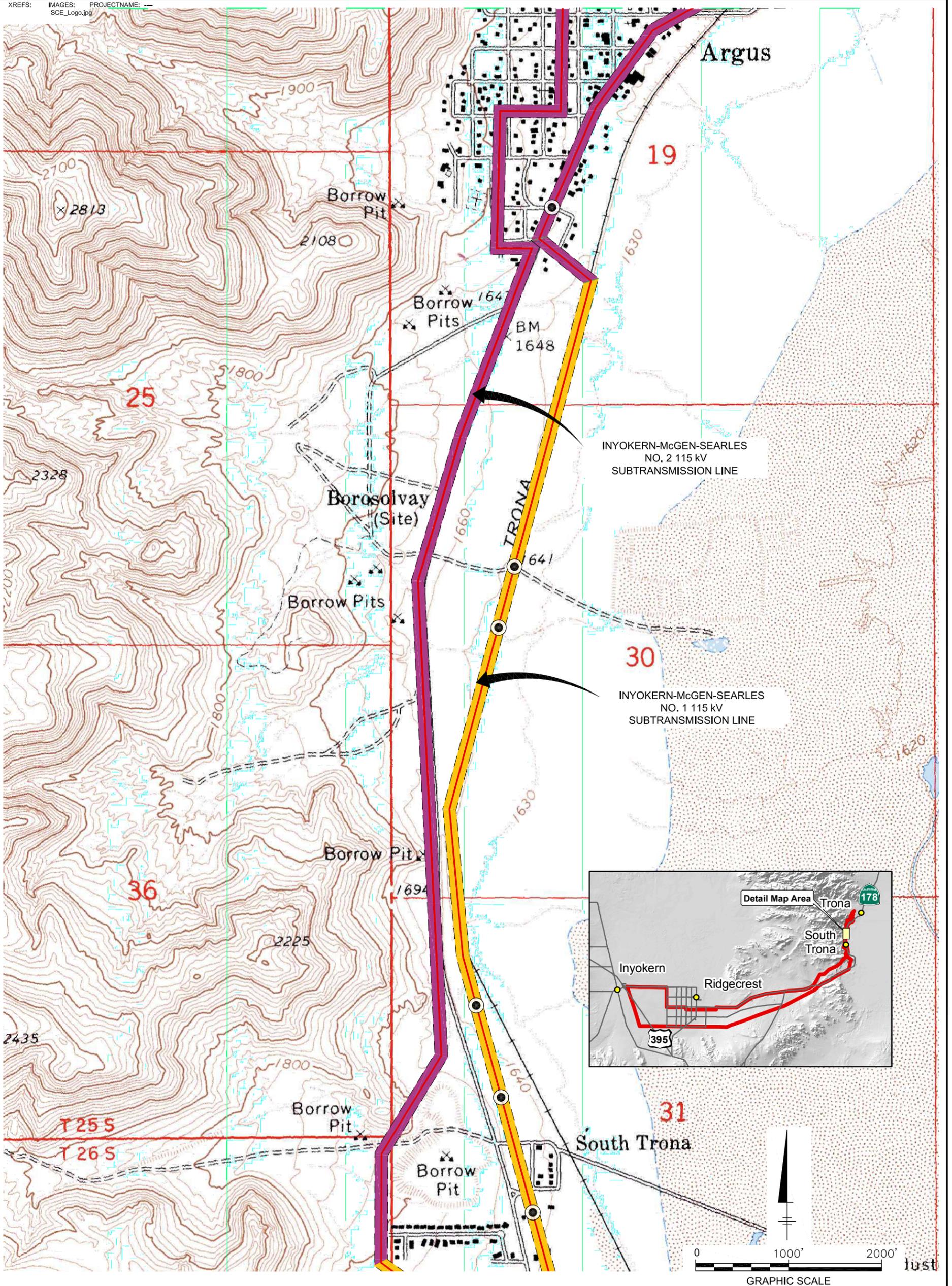
prefers arid sandy habitats with diverse vegetation and lives underground most of the year, emerging only in the spring to breed and forage enough to sustain itself for the remainder of the year underground. The proposed Downs Substation expansion area supports marginal habitat for this species, but this area is too severely disturbed by frequent human activity to support this species.

4.4.1.3.2 115 kV Subtransmission Line Survey Corridors

4.4.1.3.2.1 *Subtransmission Pole Replacement Locations*

Two CNPS listed as fairly endangered in California (rank 2.3) plants have been recorded or observed in the region of the proposed subtransmission pole replacement locations. Six special status animals have been recorded or observed in the region of the proposed subtransmission pole replacement locations ([Table 4.4-3](#)). Endangered or threatened species, and those species listed as having a moderate or higher potential to occur, and habitat for special status species are discussed in greater detail and shown on [Figure 4.4-7](#).

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LEGEND

- REPLACEMENT POLES
- 115 kV SUBTRANSMISSION LINES
- - - SURVEY AREA
- MARGINAL HABITAT
- MOHAVE GROUND SQUIRREL HABITAT ONLY
- NO HABITAT

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 KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**POLE REPLACEMENT
 WITHIN HABITAT AREAS**



FIGURE
4.4-7

4. Environmental Impact Assessment

4.4.1.3.2.1.1 Golden eagle (*Aquila chryseatos*)

Golden eagles may nest in cliffs found within foraging distance from the location of subtransmission pole replacement locations, although there is no potential nesting habitat on or near these locations. Golden eagles may periodically forage at these locations, although they are more likely to forage in larger areas of open habitats further from human habitation.

4.4.1.3.2.1.2 Mohave ground squirrel (*Xerospermophilus mohavensis*)

Mohave ground squirrels may be located within the Kochia communities that dominate the area of the southern five subtransmission pole replacement locations. Although vegetation at these locations is very sparse, Mohave ground squirrels have been recently trapped in similar habitats less than five miles (eight kilometers) from these locations (Sapphos 2007). This species has a high potential to be found within the southern five subtransmission pole replacement locations.

Table 4.4-3 Special Status Species Potential for Occurrence – 115 kV Subtransmission Line Pole Replacement

Scientific Name Common Name	Status	Flowering Period and/or Habitat	Potential for Occurrence
<i>Aliciella ripleyi</i> Ripley's aliciella	Federal: none State: none CNPS: 2.3 WEMO: not covered	May-July Mojave Desert scrubs	Low
<i>Castela emoryi</i> crucifixion thorn	Federal: none State: none CNPS: 2.3 WEMO: covered	April – July Mojave Desert scrubs	Low
<i>Aquila chryseatos</i> golden eagle	Federal: BGEPA State: CSSC/FP WEMO: covered	Nesting on cliff faces; foraging in most habitats	Nesting absent, Foraging low
<i>Athene cunicularia</i> burrowing owl	Federal: none State: CSSC WEMO: covered	Open habitats with existing burrows	Low

4. Environmental Impact Assessment

Scientific Name Common Name	Status	Flowering Period and/or Habitat	Potential for Occurrence
<i>Toxostoma lecontei</i> LeConte's thrasher	Federal: none State: CSSC WEMO: covered	Dense desert shrubs and cactus	Low
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	Federal: none State: CSSC WEMO: roosts covered	Wetter habitats away from human disturbance	Low
<i>Taxidea taxus</i> American badger	Federal: none State: CSSC WEMO: not covered	Open dry habitats with friable soils and rodents for prey	Low
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Federal: Proposed endangered State: threatened WEMO: covered	Most desert habitats with sandy or gravelly soils	High
BGEPA = Bald and Golden eagle Protection Act CSSC/FP = California Species of Special Concern/Fully Protected			
<u>West Mojave Plan (WEMO) designations</u> Covered: Species is listed as covered in WEMO Not covered: Species is not listed as covered in WEMO			
Source: CNDDB and CNPS for Inyokern SE, Ridgecrest South and Ridgecrest North West 7.5 minute USGS quadrangles			

4.4.1.3.2.1.3 Desert tortoise (*Gopherus agassizii*)

Desert tortoises are not likely to be found at the subtransmission pole replacement locations due to the poor quality and disturbed nature of the habitat.

4.4.1.3.3 Fiber Optic Telecommunication Cable Routes

Two special status plants are known to occur in the areas where the fiber optic telecommunication cable work would be conducted. Sixteen special status animals are known to occur in the areas

4. Environmental Impact Assessment

where the fiber optic telecommunication cable work would be conducted ([Table 4.4-4](#)). Endangered or threatened species, and those species listed as having a moderate or higher potential to occur, are discussed in greater detail below.

4.4.1.3.3.1.1 Ripley's aliciella (*Aliciella ripleyi*)

Ripley's aliciella is a perennial herb of the Polemoniaceae (Phlox) family (CNPS List 2.3). This species is found in rocky creosote habitats between approximately 1,000 and 6,400 feet (300 and 1,950 meters) in elevation. This species has been recorded or observed in Poison Canyon near Biological Survey Segment 3 of the Inyokern-McGen-Searles No. 2 115 kV subtransmission line. This plant has a low potential to occur in other Biological Survey Segments because rocky habitats are not common in those Biological Survey Segments.

4.4.1.3.3.1.2 Crucifixion thorn (*Castela emoryi*)

Crucifixion thorn is a perennial deciduous shrub belonging to the Simaroubaceae (Quassia) family (CNPS List 2.3). This species is historically known to occur in Mojave desert scrub, playas, and gravelly Sonoran desert scrubs at elevations ranging from 300 to 2,200 feet (90 to 670 meters) above mean sea level (amsl). These environmental conditions occur in various areas along the entire 115 kV subtransmission line survey corridors. A CNDDDB database record exists of crucifixion thorn north of Biological Survey Segment 4, and has a moderate potential to occur throughout all Biological Survey Segments.

4.4.1.3.3.1.3 Mohave tui chub (*Gila bicolor mohavensis*)

Mohave tui chub is a federally- and state-endangered fish that was transplanted into artificial refugium ponds at CLNAWS as part of an experimental re-introduction of the species. These refugium are approximately 10 miles (16 kilometers) from the closest point of the Proposed Project. The species requires substantial permanent water sources. The species does not occur within the Proposed Project area because no suitable habitat exists.

4.4.1.3.3.1.4 Desert tortoise (*Gopherus agassizii*)

The desert tortoise is federally- and state-listed threatened species. This species occurs in desert scrub communities with appropriate soils for burrowing, and prefers areas of creosote scrub with abundant annual wildflowers. These environmental conditions occur throughout the 115 kV subtransmission line survey corridors and there are recent records of desert tortoise found in Biological Survey Segments 2 and 3. This species has a high potential to occur throughout most of the native vegetation communities on all Biological Survey Segments. During surveys

4. Environmental Impact Assessment

conducted in April 2010, desert tortoise potential habitat was mapped for the entire length of the 115 kV subtransmission line survey corridors, as shown on [Figures 4.4-8](#) through [4.4-11](#).

4.4.1.3.3.1.5 Long-eared owls (*Asio otus*)

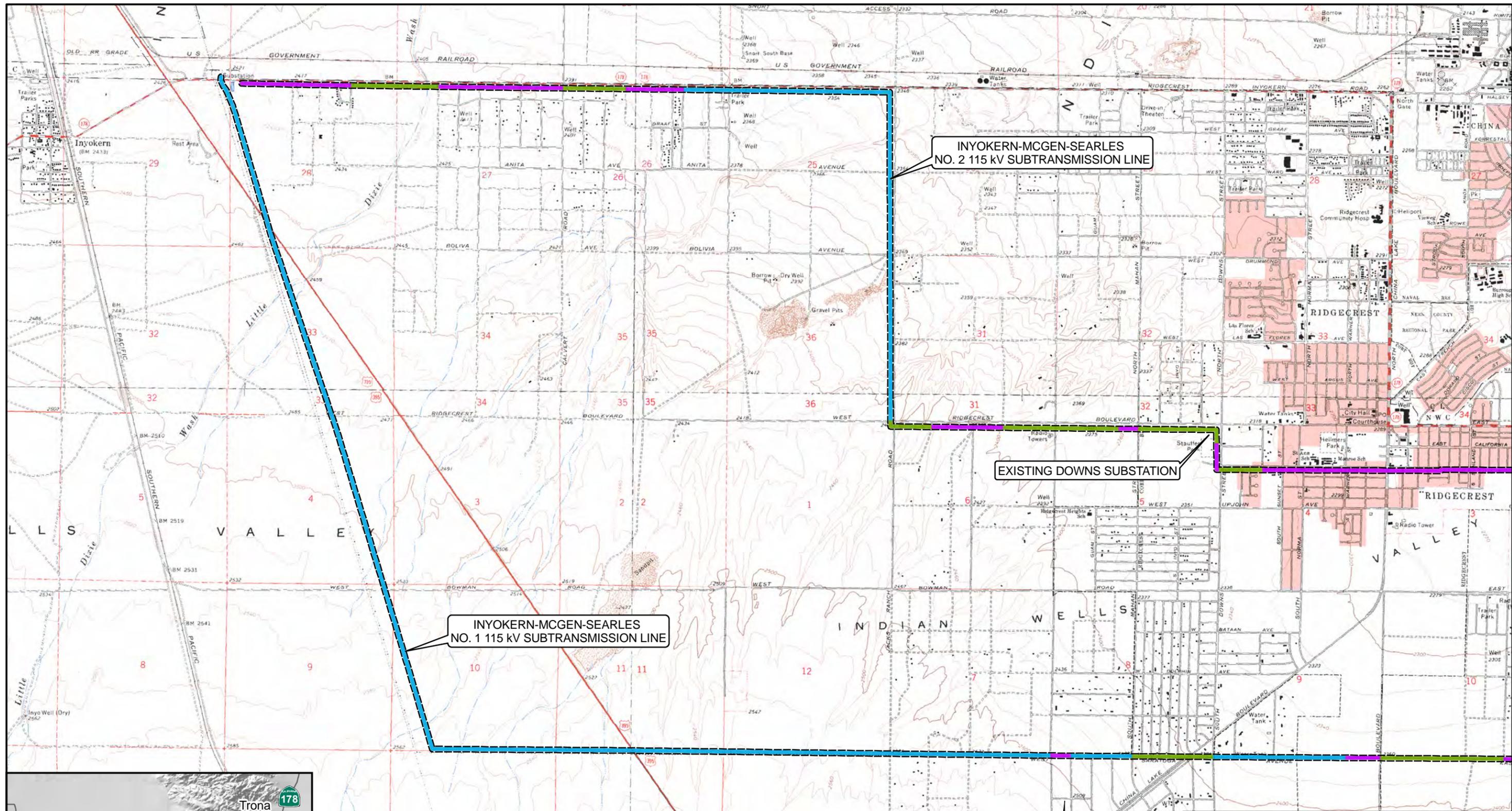
Long-eared owls are protected under the MBTA and are a CSSC species. This species is generally found in riparian areas with trees near open areas for foraging. There is a CNDDDB record of this species approximately five miles (eight kilometers) north of Biological Survey Segment 4. No suitable habitat for this species is found on any Biological Survey Segment therefore this species has a low potential to occur on all Biological Survey Segments.

4.4.1.3.3.1.6 Burrowing owl (*Athene cunicularia*)

The burrowing owl is covered under WEMO, protected under the MBTA and is a CSSC. This species inhabits open dry grasslands and desert scrubs, and nest in burrows or other structures in the ground. Phase I surveys for burrowing owl were conducted in April 2010. The results of the Phase I surveys are shown on [Figures 4.4-8](#) through [4.4-11](#). There are recent records of burrowing owls near the Inyokern-McGen-Searles No. 2 115 kV subtransmission line (Sapphos 2007). Habitat for this species is found throughout most native vegetation communities on the No. 1 and No. 2 Inyokern-McGen-Searles 115 kV subtransmission line routes. This species has a high potential to occur on portions of all Biological Survey Segments.

4.4.1.3.3.1.7 Prairie falcon (*Falco mexicanus*)

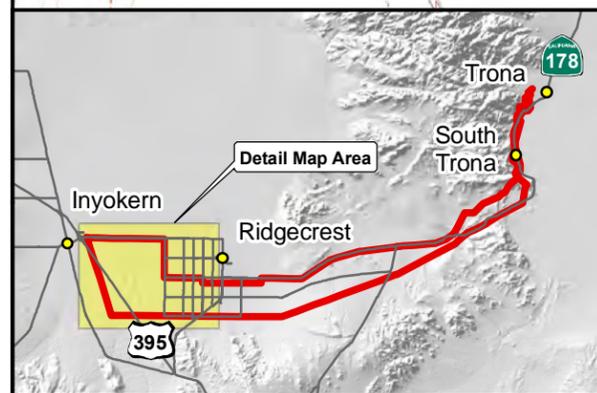
Prairie falcon is protected by the MBTA and is a CDFG watch list species that breeds throughout the arid west from southern Canada to central Mexico. Prairie falcons are found in areas of the dry interior where cliffs provide secure nesting sites. In the desert, prairie falcons are found in all vegetation community types, although sparse vegetation provides the best foraging habitat. Biological Survey Segment 3 on both the No. 1 and No. 2 Inyokern-McGen-Searles 115 kV subtransmission line routes provides potential nesting habitat for this species and has a high potential for occurrence. The remaining Biological Survey Segments have a low potential for prairie falcon nesting because there are no cliffs or other suitable nesting habitat.



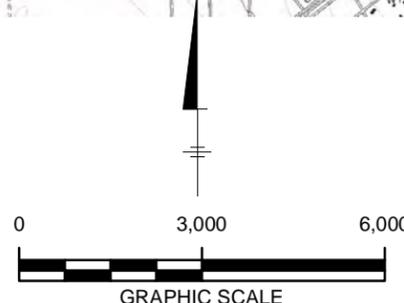
INYOKERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

EXISTING DOWNS SUBSTATION

INYOKERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



- LEGEND**
- SURVEY AREA
 - WILDLIFE HABITAT**
 - DESERT TORTOISE, BURROWING OWL,
MOHAVE GROUND SQUIRREL HABITAT
 - MARGINAL HABITAT
 - NO HABITAT



SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

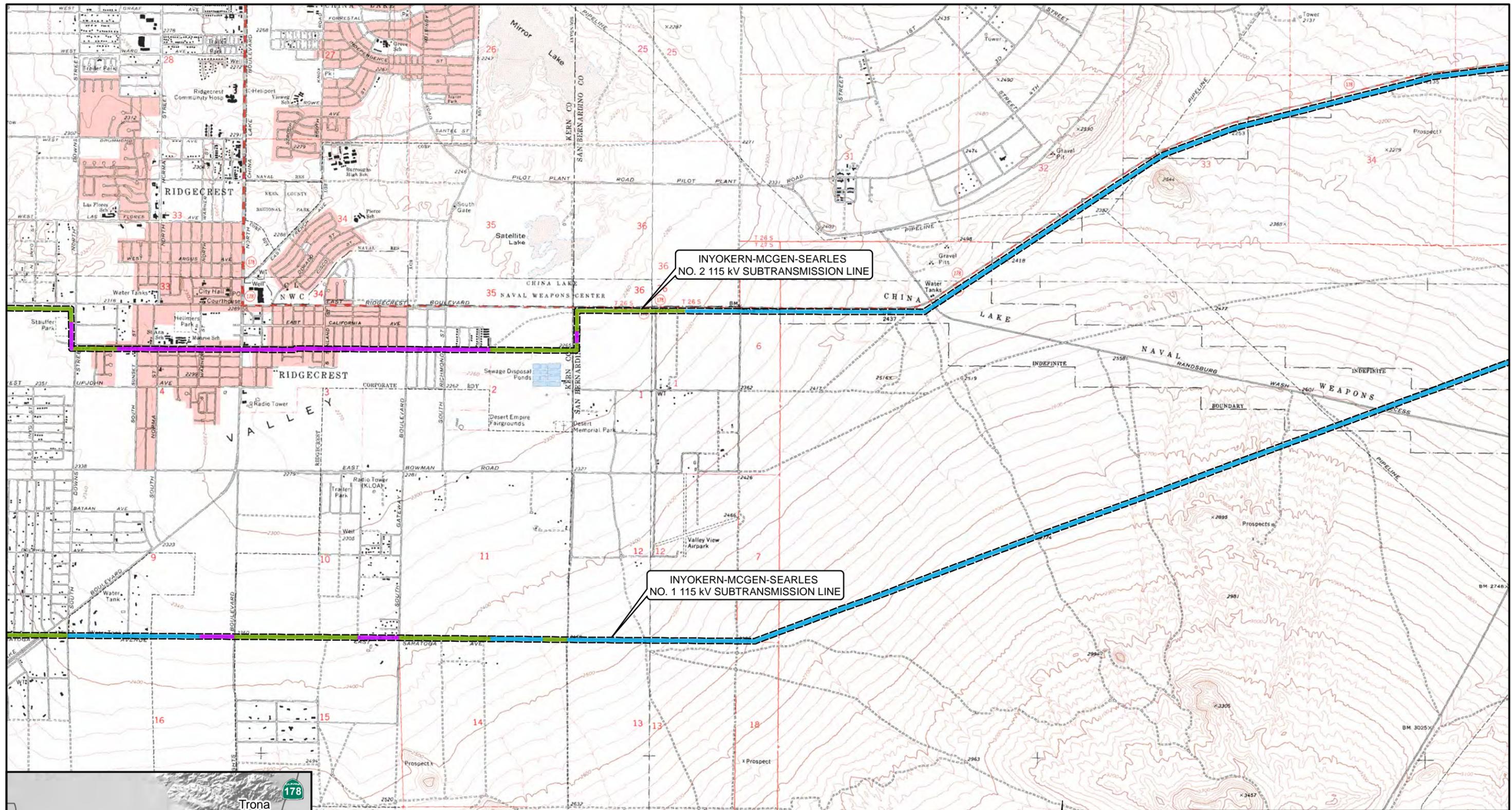
**HABITAT
(BIOLOGICAL SURVEY SEGMENT 1)**





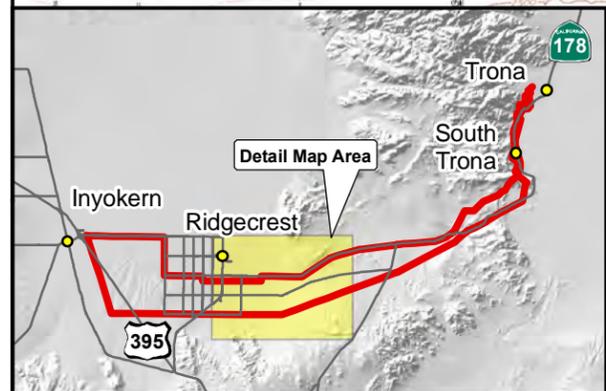
An EDISON INTERNATIONAL® Company

FIGURE
4.4-8

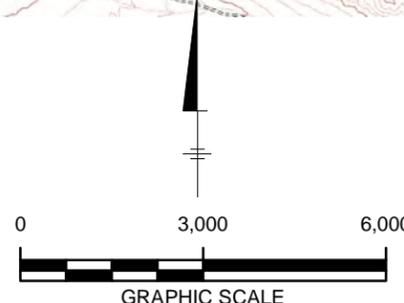


INYOKERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

INYOKERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



- LEGEND**
- SURVEY AREA
 - WILDLIFE HABITAT**
 - DESERT TORTOISE, BURROWING OWL,
MOHAVE GROUND SQUIRREL HABITAT
 - MARGINAL HABITAT
 - NO HABITAT

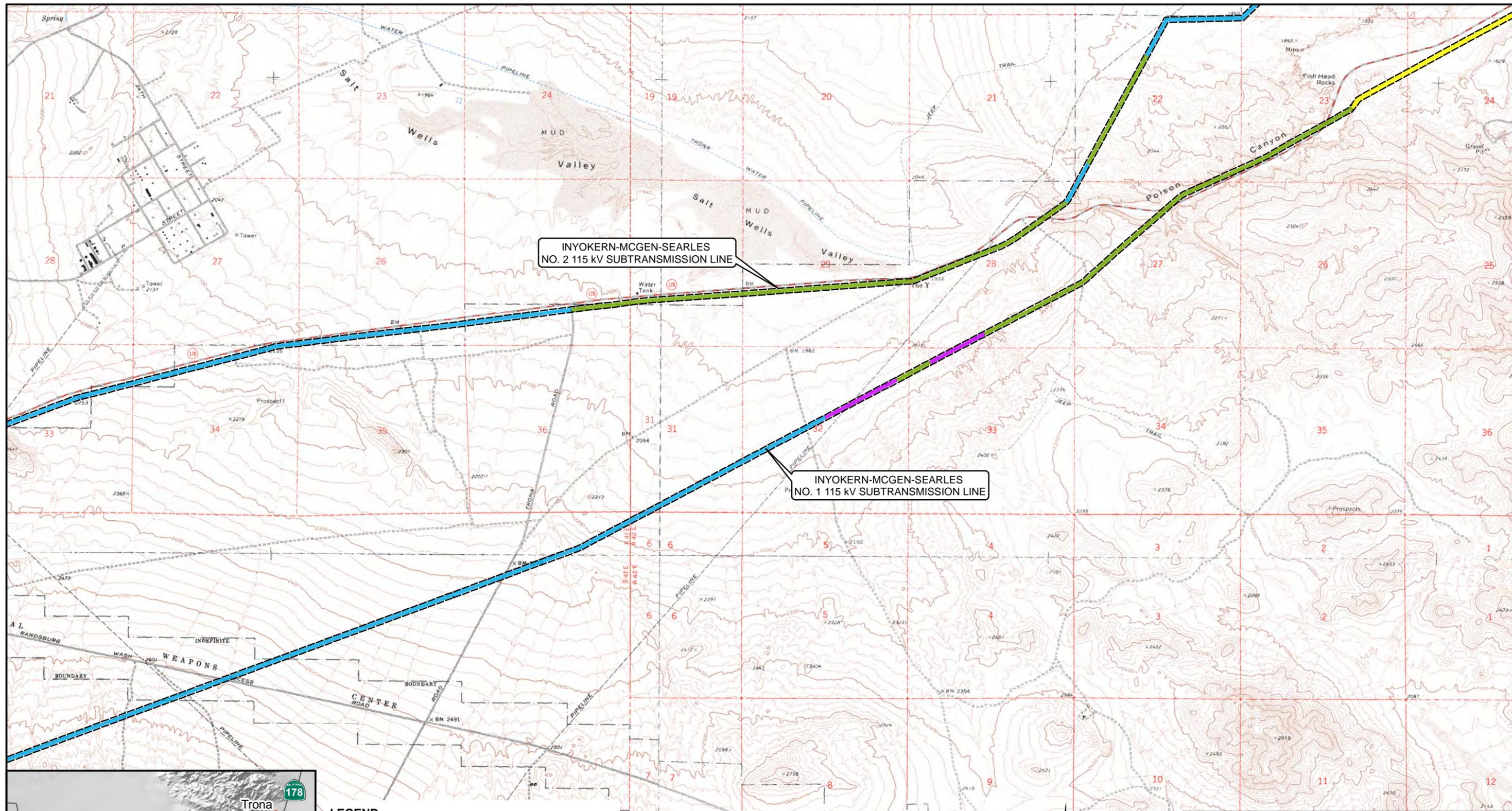


SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**HABITAT
(BIOLOGICAL SURVEY SEGMENT 2)**

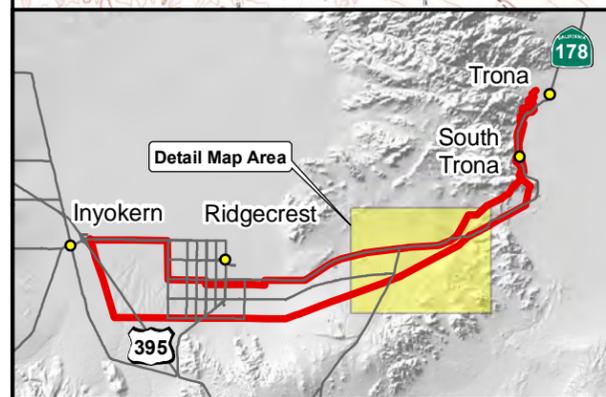


FIGURE
4.4-9



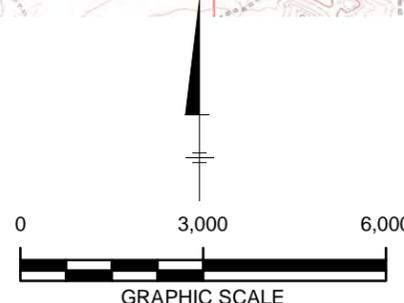
INYOKERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

INYOKERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



LEGEND

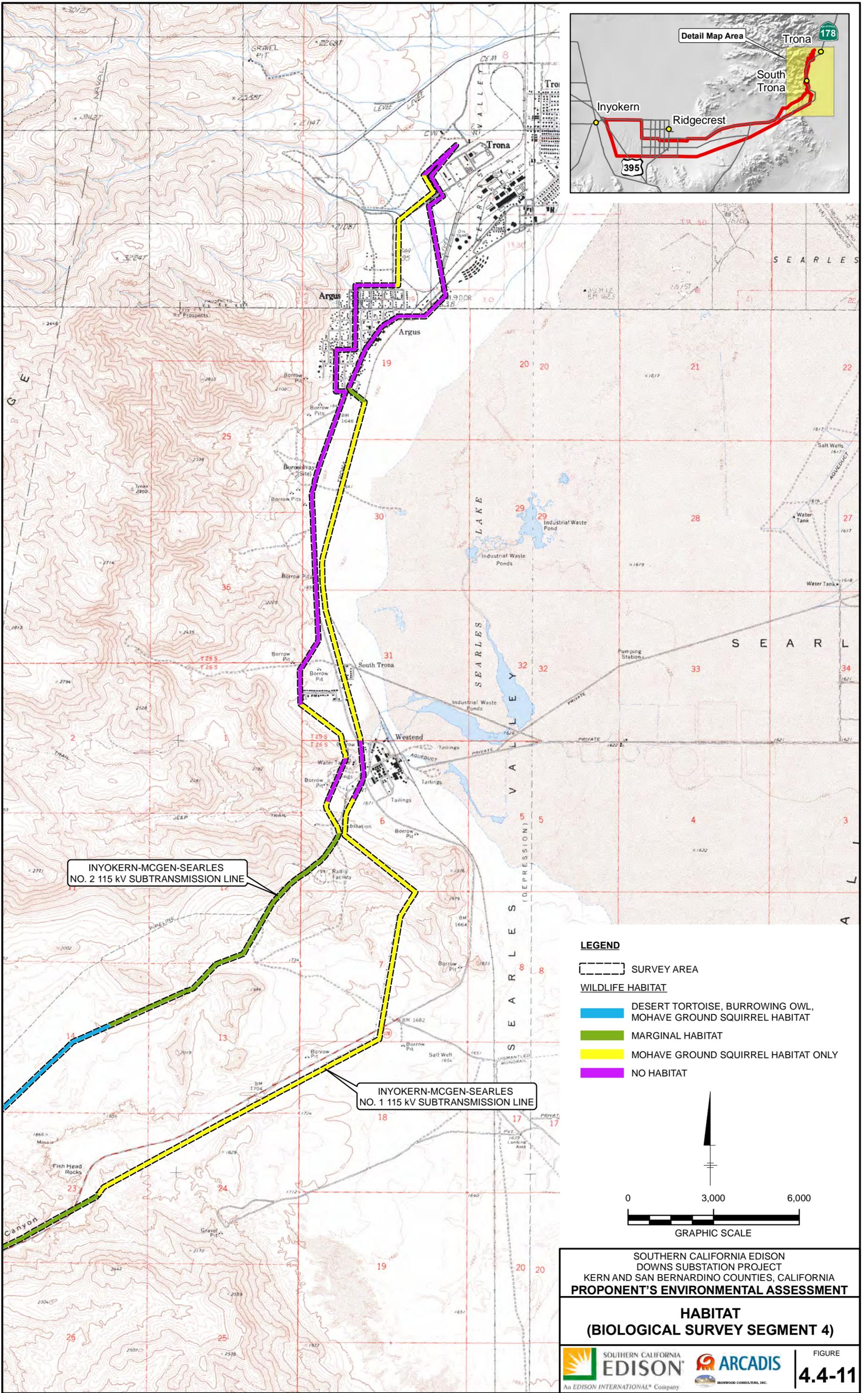
- SURVEY AREA
- WILDLIFE HABITAT**
- DESERT TORTOISE, BURROWING OWL,
MOHAVE GROUND SQUIRREL HABITAT
- MOHAVE GROUND SQUIRREL HABITAT ONLY
- MARGINAL HABITAT
- NO HABITAT



SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
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**HABITAT
(BIOLOGICAL SURVEY SEGMENT 3)**

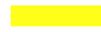
FIGURE
4.4-10

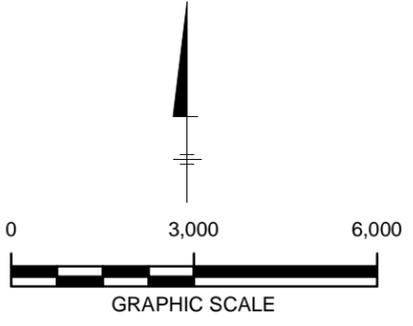


INYOKERN-MCGEN-SEARLES
NO. 2 115 KV SUBTRANSMISSION LINE

INYOKERN-MCGEN-SEARLES
NO. 1 115 KV SUBTRANSMISSION LINE

LEGEND

-  SURVEY AREA
- WILDLIFE HABITAT**
-  DESERT TORTOISE, BURROWING OWL,
MOHAVE GROUND SQUIRREL HABITAT
-  MARGINAL HABITAT
-  MOHAVE GROUND SQUIRREL HABITAT ONLY
-  NO HABITAT



SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
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**HABITAT
(BIOLOGICAL SURVEY SEGMENT 4)**



FIGURE
4.4-11

Table 4.4-4. Special Status Species Potential for Occurrence – Telecom Line Routes

Scientific Name Common Name	Status		Flowering Period and/or Habitat	Potential for Occurrence Northern Telecom Route				Potential for Occurrence Southern Telecom Route			
				Segment 1	Segment 2	Segment 3	Segment 4	Segment 1	Segment 2	Segment 3	Segment 4
Plants											
<i>Aliciella ripleyi</i> Ripley's aliciella	Federal: State: CNPS: WEMO:	none none 2.3 not covered	May-July Mojave Desert scrubs	Low	Low	High	Low	Low	Low	High	Low
<i>Castela emoryi</i> crucifixion thorn	Federal: State: CNPS: WEMO:	none none 2.3 covered	Apr – Jul Mojave Desert scrubs	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Animals											
<i>Glia bicolor mohavensis</i> Mohave tui chub	Federal: State: WEMO:	endangered endangered not covered	Deep pools or ponds - Transplante d onto China Lake NWS	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
<i>Gopherus agassizii</i> desert tortoise	Federal: State: WEMO:	threatened threatened covered	Desert scrubs and wash vegetation with friable soils	High	High	High	High	High	High	High	High
<i>Asio otus</i> long-eared owl	Federal: State: WEMO:	none SSC covered	Riparian areas with adjacent open lands	Low	Low	Low	Low	Low	Low	Low	Low
<i>Athene cucularia</i> burrowing owl	Federal: State: WEMO:	none SSC covered	Open habitats with existing burrows	High	High	High	High	High	High	High	High
<i>Falco mexicanus</i> prairie falcon	Federal: State: WEMO:	none WL covered	Nests on cliffs, forages in dry open areas	Low	Low	High	Low	Low	Low	High	Low
<i>Lanius ludovicianus</i> loggerhead shrike	Federal: State: WEMO:	none CSSC not covered	Desert scrub habitats	Present	High	High	High	High	High	High	High

Scientific Name Common Name	Status		Flowering Period and/or Habitat	Potential for Occurrence Northern Telecom Route				Potential for Occurrence Southern Telecom Route			
				Segment 1	Segment 2	Segment 3	Segment 4	Segment 1	Segment 2	Segment 3	Segment 4
<i>Pipilo crissalis eremophilus</i> Inyo California towhee	Federal: State: WEMO:	threatened endangered covered	Willow thickets in the Argus Mountains	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Animals											
<i>Toxostoma lecontei</i> LeConte's thrasher	Federal: State: WEMO:	none SSC covered	Dense desert shrubs and cactus	High	High	High	High	High	High	High	High
<i>Antrozous pallidus</i> pallid bat	Federal: State: WEMO:	none SSC significant roosts covered	Open dry habitats with rocks for roosting	Low	Low	Low	Low	Low	Low	Low	Low
<i>Corynorhinus townsendii</i> Townsend's big- eared bat	Federal: State: WEMO:	none SSC significant roosts covered	Wetter habitats away from human disturbance	Low	Low	Low	Low	Low	Low	Low	Low
<i>Euderma maculatum</i> spotted bat	Federal: State: WEMO:	none SSC significant roosts covered	Open habitats with rocks or caves for roosting	Low	Low	Low	Low	Low	Low	Low	Low
<i>Myotis ciliolabrum</i> western small- footed myotis	Federal: State: WEMO:	none none significant roosts covered	Open habitats with rocks or caves for roosting	Low	Low	Low	Low	Low	Low	Low	Low
<i>Myotis yumanensis</i> Yuma myotis	Federal: State: WEMO:	none none significant roosts covered	Open habitats with rocks or caves for roosting	Low	Low	Low	Low	Low	Low	Low	Low
<i>Ovis canadensis nelsoni</i> Nelson's bighorn sheep	Federal: State: WEMO:	S not covered	Open rocky steep areas with water and forage	Low	Low	High	Low	Low	Low	High	Low

Scientific Name Common Name	Status		Flowering Period and/or Habitat	Potential for Occurrence Northern Telecom Route				Potential for Occurrence Southern Telecom Route			
				Segment 1	Segment 2	Segment 3	Segment 4	Segment 1	Segment 2	Segment 3	Segment 4
<i>Taxidea taxus</i> American badger	Federal: State: WEMO:	none CSSC not covered	Open dry habitats with friable soils and rodents for prey	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Federal: State: WEMO:	Proposed endangered threatened covered	Most desert habitats with sandy or gravelly soils	High	High	High	High	Present	High	High	High

<p><u>California Native Plant Society (CNPS) designations:</u></p> <p>1A: Plants presumed extinct in California</p> <p>1B: Plants rare and endangered in California and throughout their range.</p> <p>2: Plants rare, threatened or endangered in California but more common elsewhere in their range.</p> <p>3: Plants about which we need more information; a review list.</p> <p>4: Plants of limited distribution; a watch list.</p> <p><u>Threat Code Extensions:</u></p> <p>.1: Seriously endangered in California.</p> <p>.2: Fairly endangered in California.</p> <p>.3: Not very endangered in California.</p> <p><u>West Mojave Plan (WEMO) designations</u></p> <p>Covered: Species is listed as covered in WEMO</p> <p>Not covered: Species is not listed as covered in WEMO</p> <p>Source: CNDDDB and CNPS for Inyokern, Inyokern SE, Ridgecrest South, Ridgecrest North, Lone Butte, Spangler Hills West, Spangler Hills East, West End, Trona East, and Trona West 7.5 minute USGS quadrangles</p>
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Notes:

S = U.S. Fish and Wildlife Service Sensitive Species

WL = Identified as a Watch List species by the California Department of Fish and Game

4. Environmental Impact Assessment

4.4.1.3.3.1.8 Loggerhead shrike (*Lanius ludovicianus*) and LeConte's thrasher (*Toxostoma lecontei*)

Loggerhead shrike and LeConte's thrasher are protected under the MBTA and are CSSC species. Both species are considered desert residents. These species inhabit various desert scrub communities. Suitable habitat for these species is found throughout the 115 kV subtransmission line survey corridors, and recent CNDDDB records of both species occur nearby (Sapphos 2007). These species have a high potential to occur on portions of all Biological Survey Segments.

4.4.1.3.3.1.9 Inyo California towhee (*Pipilo crissalis eremophilus*)

The Inyo California towhee is a federally-threatened and state-endangered resident desert species found only in the high elevations of the Argus Mountain range on China Lake Naval Weapons Station. CNDDDB records of this species are located more than 5 miles (8 kilometers) from the 115 kV subtransmission line survey corridors. The species does not occur within the 115 kV subtransmission line survey corridors because no suitable habitat exists along all Biological Survey Segments.

4.4.1.3.3.1.10 Bats (*Chiroptera*)

CNDDDB indicates that five bat species (see [Table 4.4-3](#)) have been recorded in the vicinity of the fiber optic telecommunication cable routes. Most of these species require a permanent water source in order to provide insects for foraging. CNDDDB records of these species are found approximately five miles (eight kilometers) north of the northern extreme of Biological Survey Segment 4. These species have a low potential to occur along the Biological Survey Segments because no permanent water sources exist.

4.4.1.3.3.1.11 Nelson's bighorn sheep (*Ovis canadensis nelson*)

Nelson's bighorn sheep is a Bureau of Land Management (BLM) sensitive species. Suitable habitat for bighorn sheep includes steep, rugged terrain, alluvial fans and/or washes, and water availability. In some areas, the valley floor could serve as an important linkage between neighboring mountainous regions and allow gene flow to occur between subpopulations (USFWS 2000). Bighorn sheep have been recorded in the Argus Mountain range on China Lake Naval Weapons Station, more than five miles (eight kilometers) from the 115 kV subtransmission line survey corridors. Only marginal habitat for this species exists on Biological Survey Segment 3 of the No. 1 and No. 2 Inyokern-McGen-Searles 115 kV subtransmission line routes, therefore this species has a low potential to occur in these areas.

4. Environmental Impact Assessment

4.4.1.3.3.1.12 American badger (*Taxidea taxus*)

The American badger is a CSSC species that inhabits open shrub areas throughout the California deserts. They require soils suitable for burrowing and areas with sufficient rodent populations. Badgers have been recorded near Biological Survey Segment 1 of the Inyokern-McGen-Searles No. 1 115 kV subtransmission line route and have a moderate potential to occur throughout all Biological Survey Segments.

4.4.1.3.3.1.13 Mohave ground squirrel (*Xerospermophilus mohavensis*)

The Mohave ground squirrel was proposed to be listed as federally endangered on April 29, 2010 (Federal Register 2010) and is currently a state threatened species. This small ground squirrel prefers arid sandy habitats with diverse vegetation and lives underground most of the year, emerging only in the spring to breed and forage enough to sustain itself for the remainder of the year underground. During surveys conducted in April 2010, suitable Mohave ground squirrel habitat was mapped along the entire length of all Biological Survey Segments ([Figures 4.4-8 through 4.4-11](#)). Abundant suitable habitat for the Mohave ground squirrel is found along all Biological Survey Segments. One Mohave ground squirrel was observed along the Inyokern-McGen-Searles No. 2 115 kV subtransmission line route (Biological Survey Segment 1 – [Figure 4.4-8](#)) during the surveys.

4.4.1.4 Sensitive Habitats

Sensitive habitats include:

- Designated critical habitat unit (CHU) for a listed species.
- Areas of Critical Environmental Concern (ACECs), Desert Wildlife Management Areas (DWMAs), or other special designations by the BLM.
- Plant communities listed as sensitive by BLM, CDFG and other resources agencies, or listed in WEMO.
- Wildlife movement corridors.
- Wetlands or other jurisdictional waters.

4. Environmental Impact Assessment

4.4.1.4.1 Proposed Downs Substation Expansion

No CHU, DWMA, ACECs, or other special designations are located on or adjacent to the proposed Downs Substation expansion. No sensitive plant communities are located on or adjacent to the Proposed Project.

The swale located in the proposed Downs Substation expansion is isolated from any natural drainage inlet or outlets, and does not support a native bed, bank or channel. In addition, only non-native species such as mustard (*Brassica tournefortii*), Russian thistle (*Salsola tragus*), and bull thistle (*Cirsium vulgare*) are present. The swale would not fall under the jurisdiction of either the U.S. Army Corps of Engineers (USACE) or CDFG because it is isolated and supports no native bed, bank or channel.

4.4.1.4.2 115 kV Subtransmission Line Survey Corridors

No CHU, DWMA, or ACECs are located on or adjacent to the 115 kV subtransmission line survey corridors. The Mohave ground squirrel Conservation Area (BLM 2005) overlaps portions of both the No. 1 and No. 2 Inyokern-McGen-Searles 115 kV subtransmission lines in Biological Survey Segments 3 and 4.

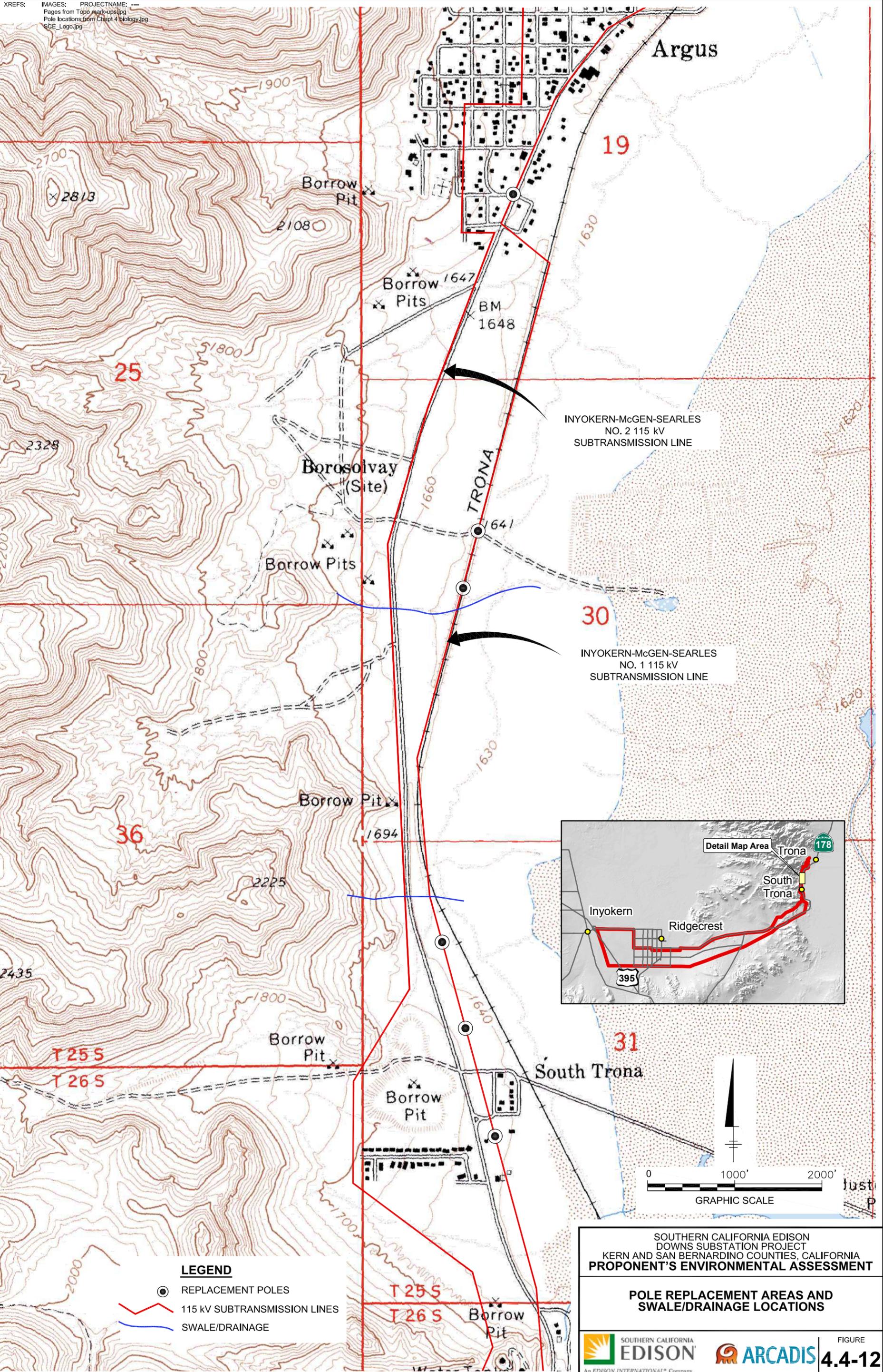
One drainage is found near one of the pole replacement locations ([Figure 4.4-12](#)). This area is not a wildlife movement corridor and would not fall under the jurisdiction of the USACE because it is isolated as it flows directly into Searles Dry Lake. This drainage may fall under the jurisdiction of CDFG, as it does support a defined bed, bank, and channel.

More than 45 drainages are found on the Inyokern-McGen-Searles No. 2 115 kV subtransmission line route and more than 38 are found on the Inyokern-McGen-Searles No. 1 115 kV subtransmission line route. These were mapped during the April 2010 surveys and are shown on [Figures 4.4-13](#) through [4.4-16](#). Many of these drainages could be subject to the jurisdiction of the USACE and/or CDFG.

4. Environmental Impact Assessment

Two large unnamed drainages are found on Biological Survey Segments 1, 3, and 4. Additionally, Little Dixie Wash on Biological Survey Segment 1 is a large wash that flows from the southeastern part of the Sierra Nevada Mountain range, across Indian Wells Valley, and onto China Lake Naval Weapons Station. Small areas of Poison Canyon support a small amount of surface water that is fed by springs much of the year. The main drainage in Poison Canyon and large drainages surrounding the canyon drain to Searles Dry Lake and would not be under the jurisdiction of the USACE, but may fall under the jurisdiction of CDFG. Although historically this area was likely to have been a corridor for wildlife, it is unlikely to be used as a corridor now, with Highway 178 crossing and spanning much of the canyon.

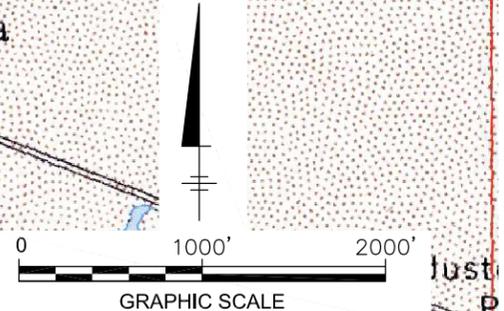
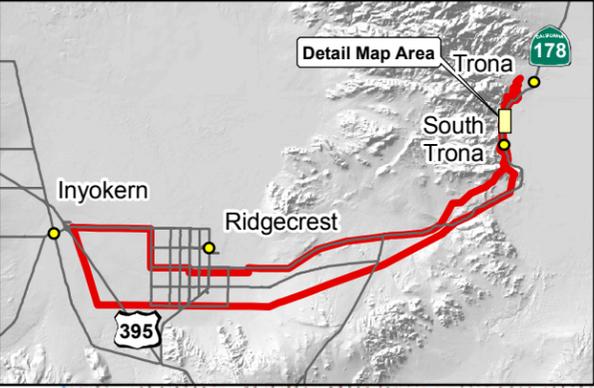
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 Pole locations from Chapt 4 biology.jpg
 SCE_Logo.jpg



LEGEND
 ● REPLACEMENT POLES
 115 kV SUBTRANSMISSION LINES
 SWALE/DRAINAGE

INYOKERN-McGEN-SEARLES
 NO. 2 115 kV
 SUBTRANSMISSION LINE

INYOKERN-McGEN-SEARLES
 NO. 1 115 kV
 SUBTRANSMISSION LINE

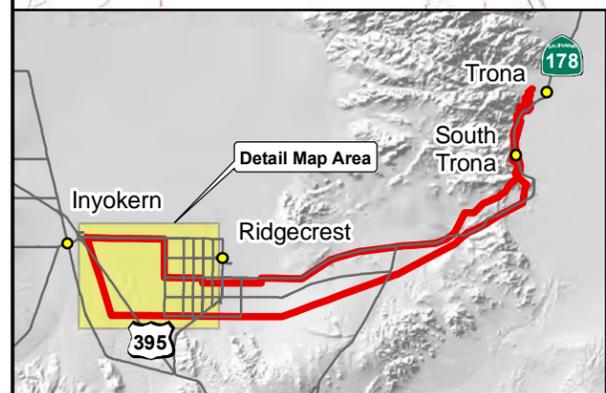
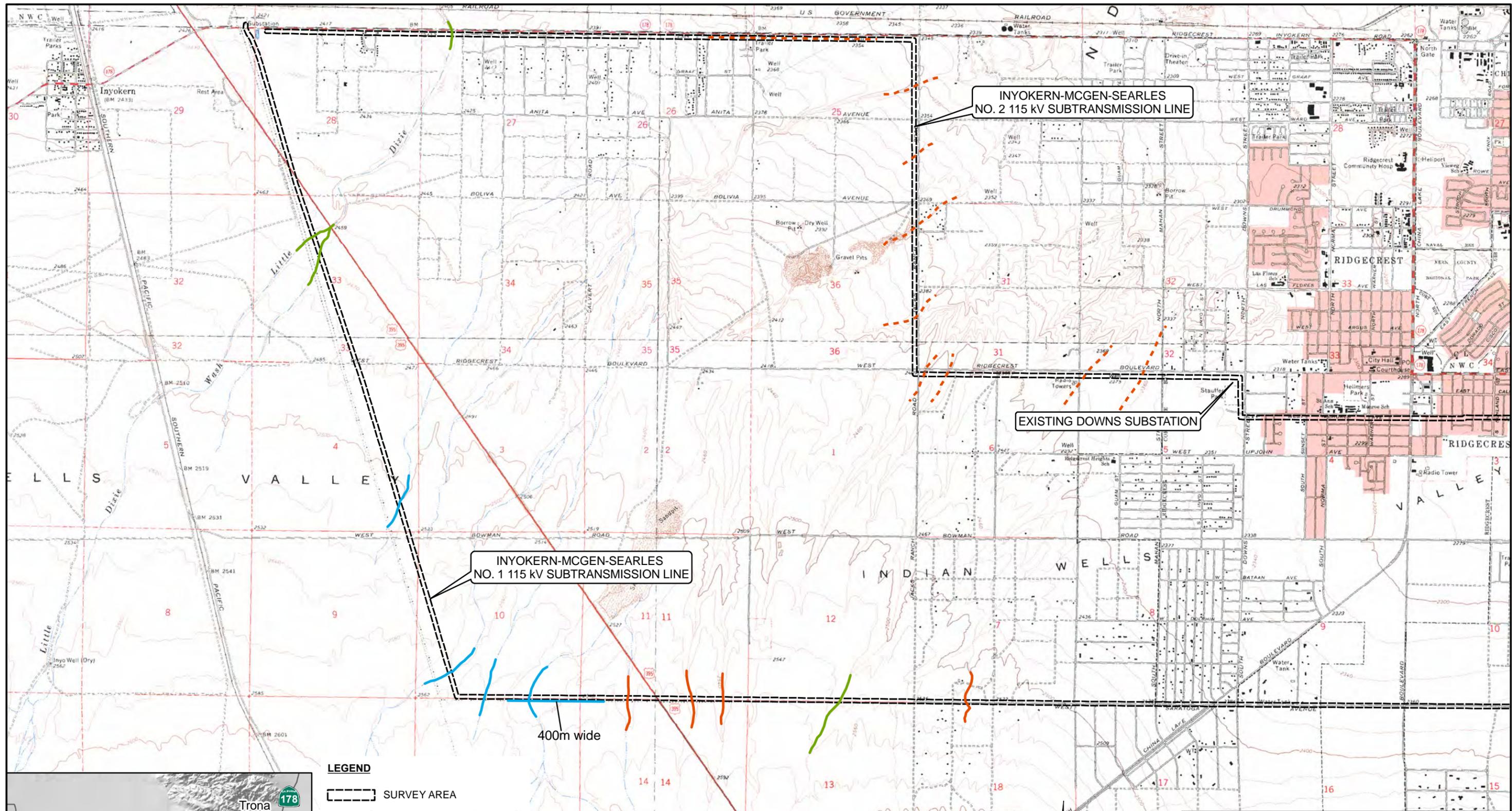


SOUTHERN CALIFORNIA EDISON
 DOWNS SUBSTATION PROJECT
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PROPONENT'S ENVIRONMENTAL ASSESSMENT

**POLE REPLACEMENT AREAS AND
 SWALE/DRAINAGE LOCATIONS**



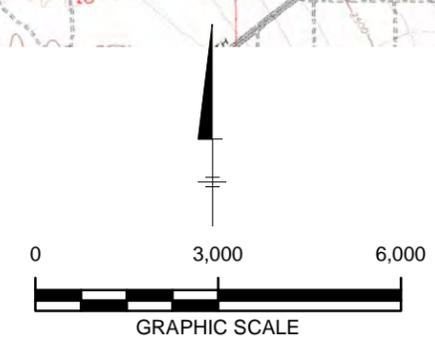
FIGURE
4.4-12



LEGEND

- SURVEY AREA
- DRAINAGE - WIDTH IN FEET (METERS)**
- 3.3-16.4 feet (1-5 m)
- 19.7-65.6 feet (6-20 m)
- 68.9-164 feet (21-50 m)
- >164 feet (>50 m)

NOTE: DASHED LINE INDICATES DRAINAGE IS BLOCKED BY ROAD.

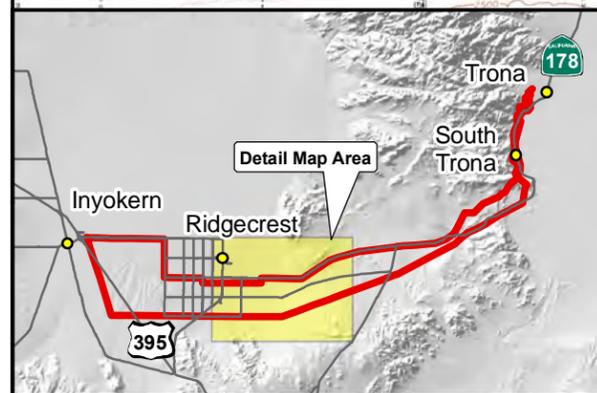
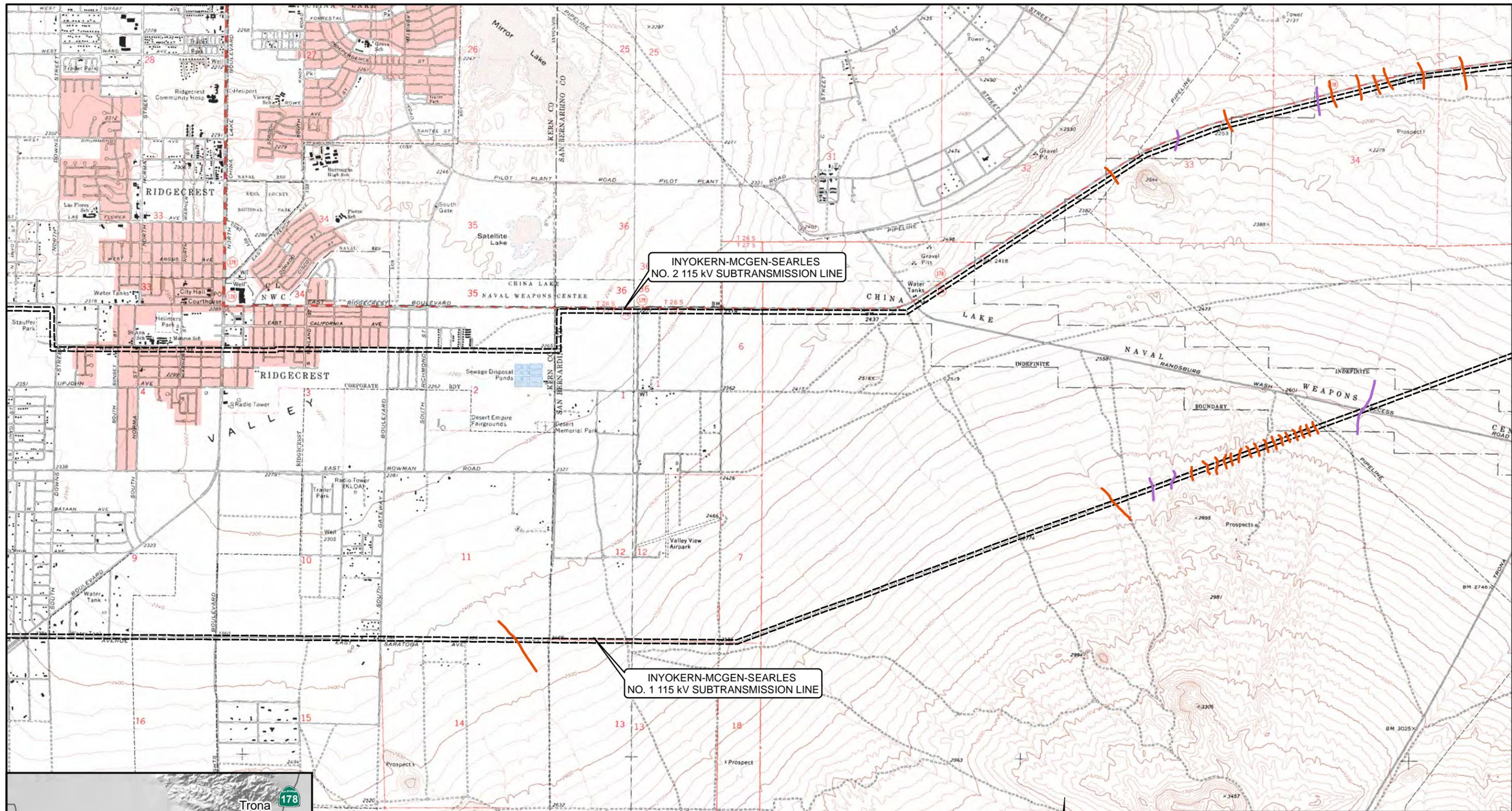


SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

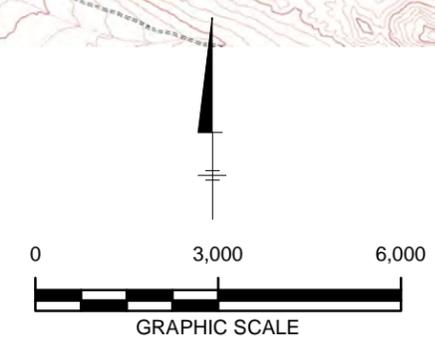
**DRAINAGES IN SURVEY AREA
(BIOLOGICAL SURVEY SEGMENT 1)**

FIGURE
4.4-13

An EDISON INTERNATIONAL® Company IRONWOOD CONSULTING, INC.



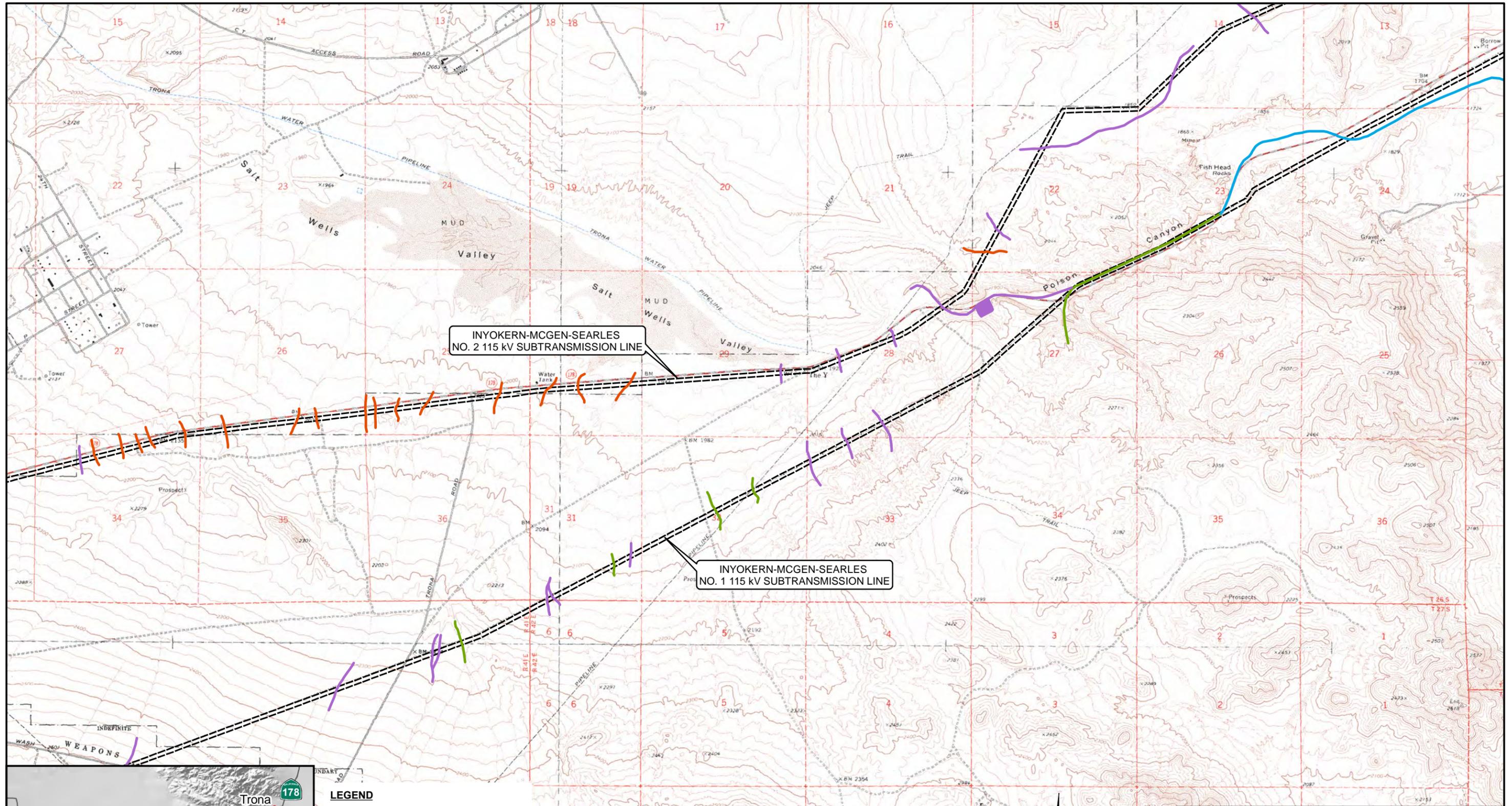
- LEGEND**
- SURVEY AREA
 - DRAINAGE - WIDTH IN FEET (METERS)**
 - ~ 3.3-16.4 feet (1-5 m)
 - ~ 19.7-65.6 feet (6-20 m)



SOUTHERN CALIFORNIA EDISON
 DOWNS SUBSTATION PROJECT
 KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

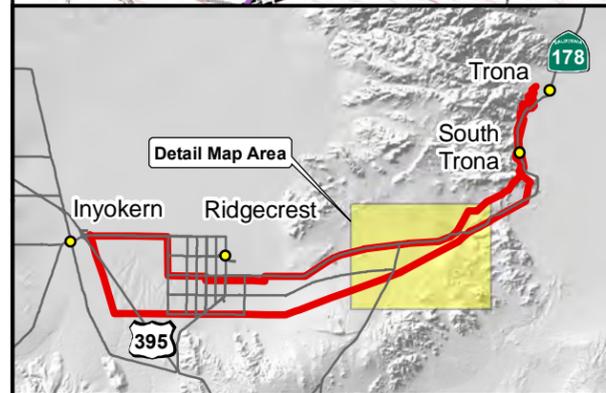
**DRAINAGES IN SURVEY AREA
 (BIOLOGICAL SURVEY SEGMENT 2)**

FIGURE
4.4-14

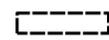


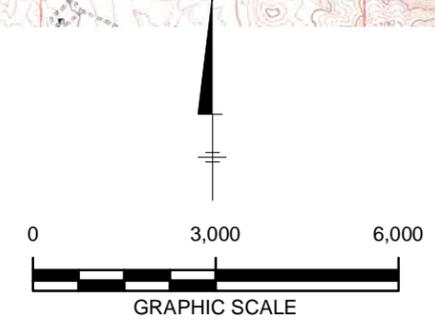
INYOKERN-MCGEN-SEARLES
NO. 2 115 kV SUBTRANSMISSION LINE

INYOKERN-MCGEN-SEARLES
NO. 1 115 kV SUBTRANSMISSION LINE



LEGEND

-  SURVEY AREA
- DRAINAGE - WIDTH IN FEET (METERS)**
-  3.3-16.4 feet (1-5 m)
-  19.7-65.6 feet (6-20 m)
-  68.9-164 feet (21-50 m)
-  >164 feet (>50 m)

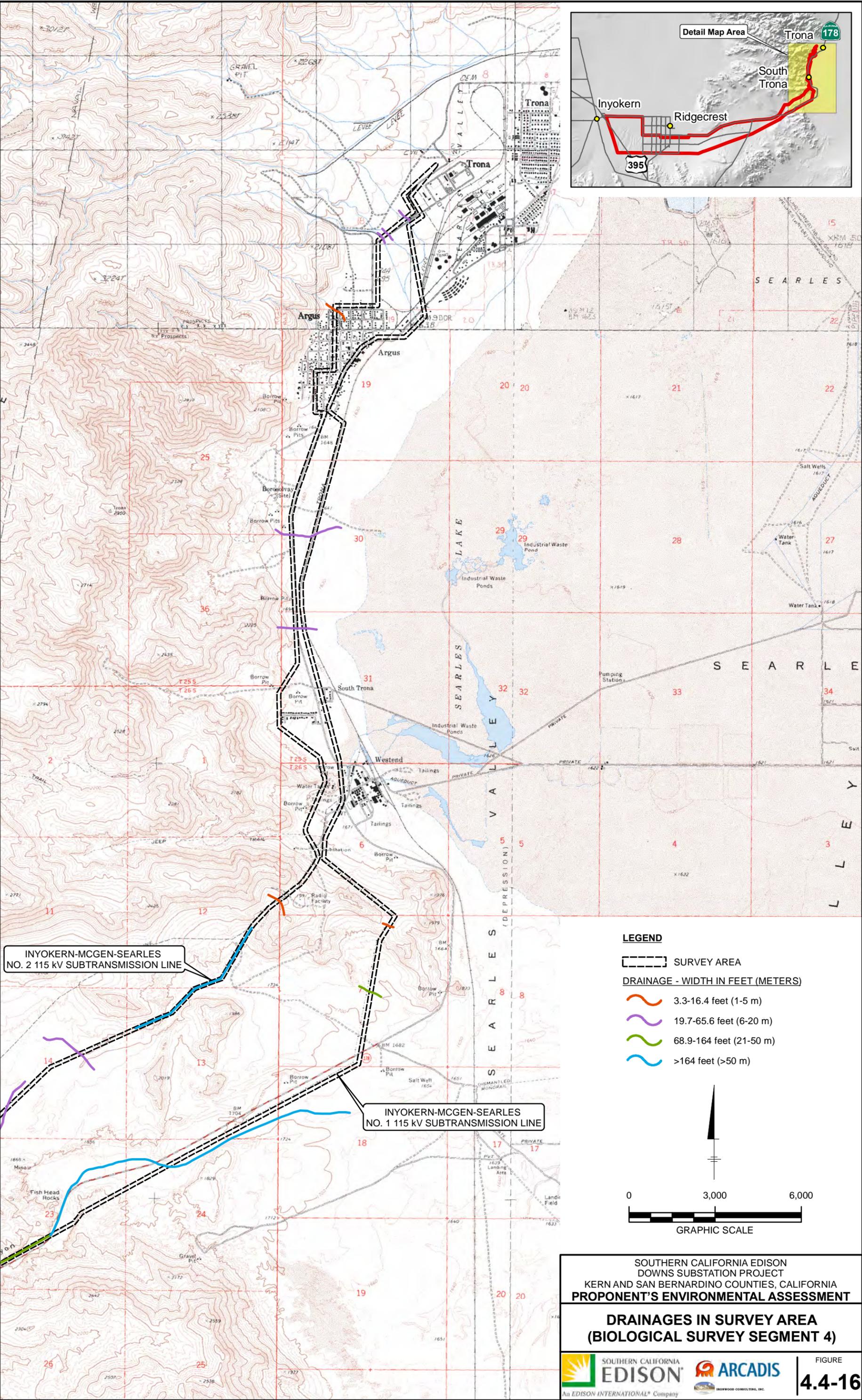
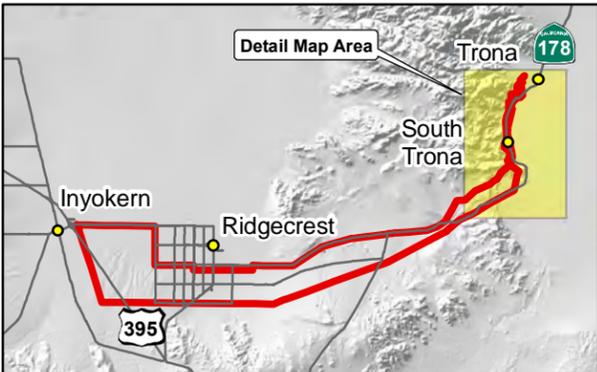


SOUTHERN CALIFORNIA EDISON
DOWNS SUBSTATION PROJECT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**DRAINAGES IN SURVEY AREA
(BIOLOGICAL SURVEY SEGMENT 3)**

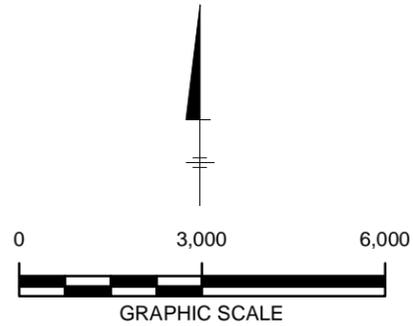






LEGEND

- SURVEY AREA
- DRAINAGE - WIDTH IN FEET (METERS)**
- 3.3-16.4 feet (1-5 m)
- 19.7-65.6 feet (6-20 m)
- 68.9-164 feet (21-50 m)
- >164 feet (>50 m)



SOUTHERN CALIFORNIA EDISON
 DOWNS SUBSTATION PROJECT
 KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA
PROPONENT'S ENVIRONMENTAL ASSESSMENT

**DRAINAGES IN SURVEY AREA
 (BIOLOGICAL SURVEY SEGMENT 4)**



FIGURE
4.4-16

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4.4.2 Regulatory Setting

4.4.2.1 Federal

Bald and Golden Eagle Protection Act—The Bald and Golden Eagle Protection Act of 2010 (16 USC 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this act.

California Desert Protection Act of 1994—This act established Death Valley and Joshua Tree National Parks, the Mojave National Preserve, and the Granite Mountains National Reserve. It also declared certain lands in the California desert as wilderness, and included other natural resource designations and provisions.

Clean Water Act—The USACE regulates discharges of dredged or fill material into Waters of the United States under Section 404 of the CWA. “Discharge of fill material” is defined as the addition of fill material into Waters of the United States, including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 CFR §328.2(f)). In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the United States to obtain a certification that the discharge would comply with the applicable effluent limitations and water quality standards.

The USACE and the USEPA are responsible for implementing the Section 404 program. Section 404(a) authorizes the USACE to issue permits, after notice and opportunity for comment, for discharges of dredged or fill material into waters of United States. Section 404(b) requires that the USACE issue permits in compliance with EPA guidelines, which are known as the Section 404(b)(1) Guidelines. Specifically, the Section 404(b) (1) guidelines require that the USACE only authorize the “least environmentally damaging practicable route” (LEDPA) and include all practicable measures to avoid and minimize impacts to the aquatic ecosystem. The guidelines also prohibit discharges that would cause significant degradation of the aquatic environment or violate state water quality standards.

Waters of the United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater

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at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR §328.3(b)).

Furthermore, Jurisdictional Waters of the United States can be defined by exhibiting a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 CFR §328.3(e)).

Compliance with Floodplain and Wetland Environmental Review Requirements—Established under 10 CFR Part 1022, this regulation establishes policy and procedures relating to the Department of Energy’s (DOE) responsibilities under EO 11988 and 11990, including:

- DOE policy regarding the consideration of floodplain and wetland factors in DOE planning and decision making; and
- DOE procedures for identifying proposed actions located in a floodplain or wetland, providing opportunity for early public review of such proposed actions, preparing floodplain or wetland assessments, and issuing statements of findings for actions in a floodplain.

To the extent possible, DOE shall accommodate the requirements of EO 11988 and EO 11990 through applicable DOE National Environmental Policy Act (NEPA) procedures or, when appropriate, the environmental review process under the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 *et seq.*).

Desert Tortoise Recovery Plan and Critical Habitat Designation of 1994, Revised 2008—The Desert Tortoise Recovery Plan established a strategy for the recovery and eventual delisting of the Mojave population of desert tortoise. Six recovery units with 14 Desert Wildlife Management Areas (DWMAs) were originally proposed in Arizona, California, Nevada, and Utah. Based on information in the Recovery Plan, 12 CHUs were established for the Mojave population of desert tortoise by the USFWS on February 8, 1994.

A draft revised recovery plan was prepared in 2008, which re-delineated the recovery units and reduced them from six units to five units, based on recent genetic research. The recovery units cover the entire range of the Mojave population of desert tortoise.

Endangered Species Act of 1973—The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with NEPA to help protect the ecosystems

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upon which endangered and threatened species depend. FESA establishes an official listing process for plants and animals considered to be in danger of extinction; requires development of specific plans of action for the recovery of listed species; and restricts activities perceived to harm or kill listed species or affect critical habitat (16 USC 1532, 1536). The designation of critical habitat for a listed species helps focus conservation activities by identifying areas that contain essential habitat features regardless of whether or not they are currently occupied by the listed species.

The FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Taking can result in civil or criminal penalties. Federal regulation 50 CFR 17.3 further defines the term harm in the take definition to mean any act that actually kills or injures a federally listed species, including significant habitat modification or degradation. Section 9 of the FESA prohibits the “take” of listed fish and wildlife species, but not plant species. The FESA also prohibits the destruction or adverse modification of designated critical habitat. In the USFWS’ regulations at 50 CFR 402.2, destruction or adverse modification is defined as a “direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.

Section 7 of the Endangered Species Act requires federal agencies to ensure that any action authorized, funded, or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat (16 USC 1536). The FESA is invoked when the property contains a federally listed threatened or endangered species that may be affected by a permit decision. In the event that listed species are involved and a USACE permit is required for impacts to jurisdictional waters, the USACE must initiate consultation with USFWS (or the National Marine Fisheries Service, NMFS) pursuant to Section 7 of the FESA (16 USC 1536; 40 CFR § 402). If formal consultation is required, USFWS or NMFS will issue a biological opinion stating whether the permit action is likely to jeopardize the continued existence of the listed species, recommending reasonable and prudent measures to ensure the continued existence of the species, establishing terms and conditions under which the project may proceed, and authorizing incidental take of the species. As the FESA applies to all land throughout the United States, actions of a private landowner in the absence of a federal nexus that could result in “take” can seek an incidental take permit through Section 10 of the FESA. The application for a Section 10 permit requires the development of a Habitat Conservation Plan (HCP). The plan must demonstrate how the landowner will minimize any impact on the listed animal species and mitigate any impacts that might still result from the action.

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Executive Order 11988 Floodplain Management—This order directs all federal agencies to avoid the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct or indirect support of floodplain development wherever there is a practicable route.

Executive Order 11990 Protection of Wetlands—This order directs all federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable route.

Executive Order 13112 Invasive Species—This order directs federal agencies to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. To do this, the order established the National Invasive Species Council; currently there are 13 Departments and Agencies on the Council.

Fish and Wildlife Coordination Act—The Fish and Wildlife Coordination Act (16 USC 661-666) applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the USFWS and the appropriate state wildlife agency. These agencies prepare reports and recommendations that document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term “wildlife” includes both animals and plants. Provisions of the act are implemented through the NEPA process and the Section 404 permit process. Under the authority of the Fish and Wildlife Coordination Act, USFWS, NMFS, and CDFG review applications for permits issued under Section 404 and provide comments to the USACE about potential environmental impacts.

Migratory Bird Treaty Act—The federal Migratory Bird Treaty Act is administered by the USFWS. The Act provides that it is unlawful to: pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg or product unless permitted by regulations. Most bird species within California fall under the provisions of the Act. Excluded species include nonnative species such as house sparrow, European starling, and rock dove. Federal Executive Order 13186 (January 10, 2001) directs each federal agency taking actions that will have or are likely to have a negative impact on migratory bird populations to work with the USFWS to develop a memorandum of understanding to promote the conservation of migratory bird populations.

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Noxious Weed Act of 1974—This act provides for the control and management of non-indigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Under this act, the Secretary of Agriculture was given the authority to designate plants as noxious weeds, and inspect, seize and destroy products, and to quarantine areas, if necessary to prevent the spread of such weeds.

4.4.2.2 Bureau of Land Management Regulations

California Desert Conservation Area Plan—The California Desert Conservation Area (CDCA) is a 25-million acre expanse of land in southern California designated by Congress in 1976 through the Federal Land Policy and Management Act. The BLM administers about 10 million of those acres. When Congress created the CDCA, it recognized its special values, proximity to the population centers of southern California, and the need for a comprehensive plan for managing the area. Congress stated that the CDCA Plan must be based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The Proposed Project falls within the CDCA.

The Wildlife Element of the CDCA Plan contains objectives and goals designed to: manage federally- and state-listed species and their habitats; comply with existing legislation and BLM policies; provide certain species designated as sensitive by the BLM special consideration and attention in the planning process; consider the habitat of all fish and wildlife in implementing the CDCA Plan; manage representative habitats using a holistic approach; give habitats unique to the CDCA special management consideration and manage them so as to maintain their unique biological characteristics; and manage sensitive habitat using a holistic, systems-type approach. Some examples of sensitive habitats include: riparian areas, wetlands, sand dunes, relict and island habitats, washes, and important ecological zones between different major ecosystems and deserts.

The primary active wildlife management tools used in the CDCA Plan are Areas of Critical Environmental Concerns (ACECs) and Habitat Management Plans (HMP). The CDCA Plan also affords protection to fish and wildlife resources through the designation of Multiple-Use Class L, which limits the number and location of routes that are approved. In addition, the plan also includes a designation of Special Areas that highlights habitats and species that should receive special consideration in the environmental assessment process for all project types. Two additional designations in the Wildlife Element are Research Natural Area and Sikes Act Agreement. Research Natural Areas have been proposed in a few locations where research and education would be the primary uses. Sikes Act Agreements are cooperative agreements between the BLM and the CDFG for joint development and implementation of an HMP. The plan identified 89 special fish and wildlife areas that would receive active habitat management and/or

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special attention in the environmental assessment process. Twenty-eight areas were identified as ACECs solely or partially to protect fish and wildlife resources.

Final Environmental Impact Report and Statement for the West Mojave Plan (WEMO or Plan)—The West Mojave Plan covers over 9 million acres of land in the Mojave Desert, and strives to provide multiple use opportunities as well as protect over 100 species of listed and sensitive species. WEMO focuses on using an adaptive management approach to protect the Desert tortoise and the Mohave ground squirrel and streamlines the incidental take permitting process to allow development, resource extraction, and recreation on disturbed lands within its boundaries. Among other things, WEMO establishes a habitat conservation area containing new and amended areas of critical environmental concern, including new Desert Wildlife Management Areas (DWMAs) for the desert tortoise, and a new Mohave ground squirrel conservation area (MGCSA). It also establishes a one-percent limitation on new ground disturbance activities within each jurisdiction and establishes a mitigation fee program. WEMO amended the Bureau of Land Management's (BLM's) existing California Desert Conservation Area (CDCA) plan and, upon adoption by other participating jurisdictions, would provide for a habitat conservation plan to be implemented by a number of participating governmental agencies.

WEMO establishes "Take-Avoidance Measures" and "Best Management Practices" for implementation by participating local agencies and BLM for projects within the WEMO planning area. Such measures and practices include: 1) use of already disturbed areas rather than undisturbed areas; 2) crews remaining on existing access roads until reaching point of disturbance; and 3) a limitation on maintenance activities to the period between November 1 and March 1, otherwise a biological monitor or assessment would be required; and 4) completion of species clearance surveys prior to the commencement of construction activities.

It should be noted that the effectiveness and applicability of WEMO is currently uncertain because of ongoing litigation. (See *Center For Biological Diversity, et al., v. U.S. Bureau of Land Management, et al.*, U.S. District Court for the Northern District of California, Case No. C 06-4884 SI). In that case, the U.S. District Court issued an order stating that the BLM's approval of WEMO was invalid for a number of reasons. As of the date of this PEA, a final decision from the Court on the remedy to be imposed—including potential invalidation of WEMO—has yet to be issued.

Cacti and Yucca Removal Guidelines—The BLM normally requires transplanting or salvage of certain native plant species that would be lost to development on lands under its jurisdiction. Species that typically require salvage regardless of their height in this region include yuccas (*Yucca* spp.) and cacti. For chollas, the plant must be less than three feet in height to require salvaging, and all plants greater than three feet in height will not be salvaged but left on-site to be

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destroyed by clearing activities. The larger chollas thus become part of natural desert mulch, which provides a seedbank for regeneration of these species.

4.4.2.3 State

California Endangered Species Act—The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to state-listed endangered and threatened species. CESA requires state agencies to consult with the CDFG when preparing CEQA documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify “reasonable and prudent routes” to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that “overriding considerations” exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

“Take” in the context of CESA means to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts when attempting to take individuals of a listed species. Section 2091 of CESA allows state lead agencies that have formally consulted with CDFG to take a listed species, if the take is incidental to carrying out an otherwise lawful project that has been approved by CEQA. Under Section 2081 CDFG can authorize take of a listed species for education, scientific or management purposes. Private applicants whose projects do not involve a state agency may not take a listed species without formally consulting with CDFG. CDFG may authorize take if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. Such management plans must be prepared in accordance with published guidelines and include strict measures for managing listed species.

California Fish and Game Code, Sections 3503 and 3513—Section 3503 of the Fish and Game Code makes it unlawful to take, possess, or needlessly destroy the nests or eggs of any bird. Section 3503.5 makes it unlawful to take or possess birds of prey (hawks, eagles, vultures, owls) or destroy their nests or eggs. Further, Section 3513 provides for the adoption of the MBTA’s provisions. As with the MBTA, this state code offers no statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game migratory birds. The administering agency for these sections is the CDFG.

California Fish and Game Code, Sections 3511, 4700, 5515, and 5050—The classification of Fully Protected species was the state’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and

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reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts, although there are several exceptions, including the golden eagle.

The Fish and Game Code sections dealing with Fully Protected species state that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected” species, although take may be authorized for necessary scientific research. This language arguably makes the “Fully Protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003 the code sections dealing with fully protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species.

CDFG Species of Special Concern—CDFG tracks species in California whose numbers, reproductive success, or habitat may be threatened. Even though not formally listed under FESA or CESA, such plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern” developed by the CDFG. CDFG has also designated special status natural communities which are considered rare in the region, support special status species or otherwise receive some form of regulatory protection. Natural vegetation communities and habitats that are unique, of global and/or regionally limited occurrence, or of particular value to wildlife are considered to be sensitive by CDFG. Documentation pertaining to these communities, as well as special status species (including species of special concern), is kept by CDFG as part of the California Natural Diversity Data Base (CNDDDB).

Native Plant Protection Act—California's Native Plant Protection Act (Fish and Game Code 1900-1913) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFG at least 10 days in advance of any change in land use. This allows CDFG to salvage listed plant species that would otherwise be destroyed. The applicant is required to conduct botanical inventories and consult with CDFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Streambed Alteration Agreements, California Fish and Game Code, Sections 1600 - 1616—Under these sections of the Fish and Game Code, the applicant is required to notify CDFG prior to constructing any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes to protect the

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resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

4.4.3 Significance Criteria

These significance criteria for assessing the impacts to biological resources come from the CEQA Environmental Checklist. A project causes a potentially significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In addition, WEMO establishes significant impact thresholds for the following biological resource categories: Natural Communities, Listed and Unlisted Wildlife and Plant Species, as well as specific species such as the Desert tortoise and Mohave ground squirrel.

4.4.4 Impact Assessment Methodology

This section provides background information on the methodologies used to collect the information that informed the above impact assessment, and provides more detailed discussion of potential impacts and the role of APMs in reducing impacts to less than significant levels.

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4.4.4.1 Biological Resource Evaluation Methodology

This section provides an overview of methods used to evaluate biological resources for the Proposed Project as described in Chapter 3. The Proposed Project is within the northernmost reach of the Mojave Desert in California.

Prior to conducting site surveys, a literature search was performed, which included a review of regional documents including:

- Land Use Maps [County of San Bernardino, U.S. Bureau of Land Management (BLM)-Ridgecrest];
- West Mojave Plan/Environmental Impact Statement/Environmental Impact Report (WEMO - BLM/County of San Bernardino 2005);
- Biological Opinion (BO) for the WEMO (USFWS 2006);
- California Natural Diversity Database (CNDDDB 2010) for an area within five miles (eight kilometers) of the proposed Downs Substation expansion location and on different segments of the proposed fiber optic telecommunication (telecom) line routes;
- Online California Native Plant Society (CNPS 2010) Inventory of Rare and Endangered Plants for an area within five miles (eight kilometers) of the existing Downs Substation location and on different segments of the fiber optic telecommunication cable routes;
- Online interactive soils survey maps (NRCS 2010);
- Recent reports in the Project area, including 2007 Mohave ground squirrel trapping studies conducted along State Route 178 (Sapphos 2007).

Preliminary surveys of the existing Downs Substation occurred on February 23, 2010 and preliminary surveys of the Inyokern-McGen-Searles No. 1 and No. 2 115 kV subtransmission line routes (which correspond to the proposed fiber optic telecommunication cable routes and locations of the six subtransmission pole replacement locations, and will hereafter be referred to as the 115 kV subtransmission line corridors) occurred on April 12 and 13, 2010. These field surveys collected information including:

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- Characterization of plant communities including listing plants observed on the Downs Substation location and on the 115 kV subtransmission line survey corridors;
- Assessment of the potential for listed and special status plant and animal species to occur on the proposed Downs Substation expansion location and on each Biological Survey Segment of the 115 kV subtransmission line survey corridors;
- Preliminary mapping of drainages on the proposed Downs Substation expansion location and along the 115 kV subtransmission line survey corridors; and
- Photographs of existing habitats on the proposed Downs Substation location and on the 115 kV subtransmission line survey corridors.

4.4.4.2 Survey Methods

Biological surveys and habitat suitability assessments were conducted within the existing Downs Substation location and along the 115 kV subtransmission line survey corridors.

4.4.4.2.1 Proposed Downs Substation Expansion

Surveys in February 2010 were conducted to determine vegetation communities and potential habitat for special status species at the proposed five acre (two hectare) Downs Substation expansion and in immediately surrounding areas. Surveys of the expansion area in April 2010 completed full floristic surveys at the site during the height of blooming period for the majority of Mojave Desert plants, focused surveys for desert tortoise and Phase I and II burrowing owl surveys according to current protocols (CDFG/CNPS 2009, USFWS 2010, Burrowing Owl Consortium 1993).

4.4.4.2.2 115 kV Subtransmission Line Survey Corridors (Pole Replacement Locations and Fiber Optic Telecommunication Cable)

Surveys in April 2010 were conducted along the entire length of the 115 kV subtransmission line survey corridors, encompassing approximately 66 miles (105 km) of surveys. Within this area, six pole replacement locations are proposed.

Vegetation mapping of the 115 kV subtransmission line survey corridors was conducted by visual examination of the survey corridors. The purpose of these surveys was to identify vegetation and land cover within the 115 kV subtransmission line survey corridors. Vegetation communities are described according to the descriptions in *A California Manual of Vegetation* (Sawyer & Keeler-

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Wolf 2009), and approximate acreages of all vegetation communities in the 115 kV subtransmission line survey corridors were delineated. Dominant plant species were recorded for each community and are found in Appendix D to this PEA.

Reconnaissance-level surveys were conducted in conjunction with vegetation mapping to evaluate the potential for occurrence of special status wildlife species along the 115 kV subtransmission line survey corridors. All wildlife species observed or detected by sign (tracks, vocalizations, scat, burrows, etc.) were recorded and are found in Appendix D to this PEA. Specific location information was recorded in WGS84 within 16 foot (5 meters) accuracy.

Habitat on each Biological Survey Segment of the 115 kV subtransmission line survey corridors was assessed for potential use by those special status species that have the potential to occur, including burrowing owl, desert tortoise, and Mohave ground squirrel.

4.4.5 Impact Assessment Discussion

4.4.5.1 *Proposed Downs Substation Expansion*

4.4.5.1.1 Vegetation Communities

Approximately 2.5 acres of disturbed creosote bush-white bursage community would be removed to construct the expansion of Downs Substation. This would be a permanent impact. The removal of 2.5 acres of creosote bush-white bursage community represents a less than significant impact because this area is previously disturbed and isolated by its location within the City of Ridgecrest and adjacent recreational facilities, the existing Downs Substation, major roads, and commercial development.

During the construction of the proposed Downs Substation expansion, creosote bush-white bursage vegetation communities adjacent to the expansion area could experience indirect impacts from dust. This would be an indirect, temporary, impact to adjacent vegetation. These impacts are expected to be less than significant because these adjacent areas already experience a high level of disturbance.

Operation of the facility is not expected to have any significant impact, since the facility would be self-contained and would not impact any adjoining parcels.

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4.4.5.1.2 Wildlife Resources

Construction of the proposed Downs Substation expansion would remove approximately 2.5 acres of creosote bush-white bursage habitat. Since this vegetation community is common in the area and has been substantially disturbed, the loss of this habitat is considered less than significant. Construction on the proposed Downs Substation expansion would also involve the generation of noise, dust, and light and glare, which may impact adjoining parcels containing native wildlife habitat. Because the proposed Downs Substation expansion area is located within a semi-urban area and is subjected to noise and other disturbances, this impact is not considered significant.

4.4.5.1.3 Sensitive Habitats

The proposed Downs Substation expansion area is not located within or near any sensitive habitats, such as Critical Habitat, wetlands or other designated sensitive habitats. Therefore, no impacts to sensitive habitats would occur.

4.4.5.1.4 Sensitive Species

The construction of the proposed Downs Substation expansion has the potential to impact sensitive species. The potential impact is described below:

4.4.5.1.4.1 Sensitive Plant Species

An analysis of the potential for sensitive plants to occur on the site as well as sensitive plant surveys did not identify any listed or other plant species considered sensitive. Therefore construction of the proposed Downs Substation expansion would not impact any sensitive plant species.

4.4.5.1.4.2 Desert Tortoise

The proposed Downs Substation expansion area is located within the range of the federally and state-listed threatened species. The proposed Downs Substation expansion area has been substantially disturbed and protocol level surveys conducted at the location failed to identify any tortoise or tortoise sign. A low probability exists that the species occurs within the proposed Downs Substation expansion area; therefore the construction of the proposed Downs Substation expansion is not anticipated to result in a significant impact to desert tortoise.

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4.4.5.1.4.3 *Mohave Ground Squirrel*

The proposed Downs Substation expansion is located within the range of the state-listed threatened and federal candidate Mohave ground squirrel. A habitat evaluation of the site was conducted and determined that even though the Downs Substation expansion supports marginal habitat for this species, the site is too severely disturbed (frequent human activity, trash dumping, low food availability) to support this species. Therefore, no significant impact to this species is anticipated from the proposed Down Substation expansion.

4.4.5.1.4.4 *Burrowing Owl*

The burrowing owl is covered under WEMO, is protected under the MBTA, and is a CSSC. Focused Phase I and II surveys conducted for this species in April 2010 found no sign of this species on or adjacent to Downs Substation. Numerous potential burrow locations were identified at the proposed Downs Substation expansion location. Due to the potential habitat including existing burrows, there is a potential that this species could be significantly impacted during construction especially during nesting season. Preconstruction surveys (APM 3), scheduling of grading during non-nesting periods or onsite monitoring during grading during the nesting season, and avoidance of nest areas or relocation of nests if present, would reduce this impact to less than significant.

4.4.5.1.4.5 *Loggerhead Shrike and LeConte's Thrasher*

Loggerhead shrike and LeConte's thrasher are protected under the MBTA and are both CSSC species. Both species are considered desert residents. These species inhabit various desert scrub and wash habitats throughout the Mojave Desert in California. A loggerhead shrike was observed during these surveys approximately 3.5 miles (5.6 kilometers) northwest from the proposed Downs Substation expansion location. There is a potential that these species could occur within the proposed expansion area; however, due to the disturbed nature of the site and the implementation of preconstruction surveys, the impact is considered less than significant.

4.4.5.1.4.6 *Potential Impact to Nesting Birds*

Implementation of the proposed Downs Substation expansion has the potential to impact ground nesting and other nesting birds. The disruption of nests or the disturbance of nesting birds would result in a significant impact. This impact can be mitigated to less than significant levels through application of APMs 3 and 5, which would involve the avoidance of the initial construction activities during the nesting season, or alternatively active monitoring of the construction location for nesting birds and cessation of construction activities in the area of nesting birds if they are found.

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4.4.5.1.4.7 Potential for Electrocution of Birds from Substation Facilities and Other Facilities

Implementation of the proposed Downs Substation expansion has the potential to result in electrocution of raptors and other birds that nest or perch within the facility. The application of APM 4, the use of avian-safe equipment on the expanded portion of the proposed Downs Substation and any new utility poles, would reduce this impact to less than significant levels.

4.4.5.2 115 kV Subtransmission Line Survey Corridors: Impacts of Fiber Optic Telecommunication Cable and Pole Replacement

Implementation of the Proposed Project would involve the stringing of fiber optic telecommunication cable on existing wooden poles. This activity would involve the stringing of fiber optic telecommunication cable and the attachment of the cable to the poles using bucket trucks or similar equipment from existing roads. No construction of new roads are associated with the Proposed Project. Six subtransmission poles have been identified as needing replacement. The replacement of these poles would require removal of the existing poles and replacement with new poles. It is anticipated that a disturbance area of approximately 50 feet (15 meters) in diameter around the pole would occur at these six locations. The stringing of fiber optic telecommunication cable and replacement of poles would have potential impacts on vegetation communities and wildlife as discussed below.

4.4.5.2.1 Vegetation Communities

Placement of fiber optic telecommunication cable on existing subtransmission poles using bucket trucks operating from existing roads is not anticipated to create significant impacts to vegetation communities. No grading of roads or staging areas would be conducted. Fiber optic telecommunication cable spools would be placed within roadways or other disturbed areas. As described in APM 5, the cable stringing and hanging effort would be monitored to assure vehicles and other equipment do not enter areas containing native vegetation. Therefore, impacts to the vegetation communities would be considered less than significant.

Approximately 3 acres (1.2 hectares) of vegetation would be temporarily disturbed to replace six subtransmission poles in the Trona area. The disturbance of 3 acres (1.2 hectares) of Kochia community represents a less than significant impact, because this area was previously disturbed due to its location near Trona.

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4.4.5.2.2 Wildlife Resources

Noise, dust, and construction-related vehicular traffic associated with the stringing and attachment of fiber optic telecommunication cable to existing subtransmission poles would have a potential to impact wildlife resources. Noise and dust may repel avian species from the areas during construction. Further, disturbances caused by the stringing and attachment of fiber optic telecommunication cable may affect raptors and other birds either nesting on or near the poles. Construction-related vehicular traffic would have the potential to collide with wildlife. In order to reduce the potential impacts from noise, dust, and construction-related vehicular traffic, vehicle speed on unpaved roads would be limited to 15 mph (APM 1). Furthermore, preconstruction surveys and monitoring to avoid nesting birds (APMs 3 and 5) would reduce potential impacts from noise, dust, and construction-related vehicular traffic to less than significant levels.

Wildlife communities adjacent to subtransmission pole replacement locations could also experience disturbances from increased noise, dust, and nighttime lighting. However, these disturbances would be of lesser intensity than those within the installation area. Therefore, these potential impacts are expected to be less than significant.

4.4.5.2.2.1 Sensitive Plants and Wildlife

Two sensitive plant species could be found along the 115 kV subtransmission line survey corridors (Ripley's aliciella and crucifixion thorn). CDFG and CNPS consider plants listed on CNPS Lists 1 and 2 as significant, and the direct removal of these plants would be a significant impact. Monitoring of project activities to assure that vehicles and equipment are kept on existing roads (APM 5) would reduce the level of impacts to sensitive plants to less than significant because impacts to these plants would be avoided.

The Mohave ground squirrel is known to occur at the pole replacement sites and along the existing 115 kV subtransmission line routes. Replacement of the poles would result in ground disturbances that could impact the species during installation. Preconstruction surveys, monitoring, and other measures to avoid or minimize impacts to this species would be employed as necessary, including measures that may be required by the resource agencies, thereby reducing impacts to this species to less than significant levels (APM 3). Mohave ground squirrels may also occur along much of the 115 kV subtransmission line routes. No new ground disturbance would occur; however, there would be a potential for mortality from vehicles collisions or collapsing burrows. Preconstruction surveys, monitoring during construction, and avoidance of burrows (APMs 3 and 5) would reduce this impact to the Mohave ground squirrel to less than significant levels.

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Although it is unlikely that tortoise occur at the six pole replacement locations, desert tortoise could occur along the rest of the 115 kV subtransmission line routes. There is a potential that desert tortoise or their burrows could be impacted by vehicles during the installation of fiber optic telecommunication cable on the existing poles. Implementation of APMs 1, 3, and 5, including preconstruction surveys for burrows, avoidance of burrows, and construction monitoring to avoid tortoises, would reduce impacts to less than significant levels.

Replacement of the six poles and the installation of fiber optic telecommunication cable on the 115 kV subtransmission lines would have a potential to impact nesting birds including raptors and burrowing owls. This potentially significant impact can be reduced to less than significant levels through implementation of APMs 1, 3, and 5, which involve either construction during non-nesting periods or through monitoring and avoidance of nesting birds.

4.4.5.2.2.2 Sensitive Habitats

The fiber optic telecommunication cable would be strung and attached using bucket trucks using existing roads. No grading would be conducted in association with the stringing of the fiber optic telecommunication cable. The roads cross a number of washes, some of which may be under the jurisdiction of the USACE and/or the CDFG. Since there would be no grading or other disturbances, no impacts are anticipated.

4.4.6 Impact Assessment

Construction and operation of the proposed Downs Substation expansion and replacement of subtransmission poles and installation of fiber optic telecommunication cable in the 115 kV subtransmission line survey corridors would result in less than significant impacts or no impacts for the following CEQA criteria:

Would the Proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

Proposed Downs Substation Expansion

Less than Significant Impact with Application of Applicant Proposed Measures. Construction of the proposed Downs Substation expansion area has a potential to impact loggerhead shrike habitat, a sensitive species. The species was not found on the proposed Downs Substation expansion area; however, CNDDDB records indicate the species occurs nearby.

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Although marginal habitat exists within the Downs Substation expansion area, the habitat is highly disturbed, and the loss of this habitat is considered less than significant.

No burrowing owls were found during the surveys; however, the presence of habitat including ground squirrel burrows increases the potential that this location could support nesting burrowing owls that would be disturbed by construction. Implementation of APMs 3 and 5 would reduce this impact to less than significant.

No significant impact to other sensitive species including the desert tortoise and Mohave ground squirrel is anticipated, since survey results were negative and only marginal habitat exists.

115 kV Subtransmission Line Survey Corridors (Pole Replacement and Fiber Optic Telecommunication Cable Installation)

Less than Significant Impact with Application of Applicant Proposed Measures. There is a potential that the replacement of poles would impact Mohave ground squirrel individuals and/or populations since they are known to occur within the Proposed Project area. Surveys and avoidance of individuals during construction would reduce impacts to less than significant levels (APMs 3 and 5). Installation of the fiber optic telecommunication cable on the existing poles has the potential to impact Mohave ground squirrel including mortality from vehicles operating on the existing roads. Monitoring and avoidance of burrows and/or individuals during installation would reduce this impact to less than significant levels (APM 5).

The 115 kV subtransmission line survey corridors have the potential to support desert tortoises that could be impacted by vehicle traffic or other activities during installation. Monitoring and avoidance (APMs 1 and 5) would reduce these impacts to less than significant levels.

There is a potential that nesting birds including burrowing owls could be impacted. Through monitoring and, if needed, implementation of appropriate species-specific measures, avoidance of nesting season or monitoring during nesting season, this impact can be reduced to less than significant levels. This is described in APM 5.

The Proposed Project, with implementation of Applicant Proposed Measures (APM) 3, 4, and 5, would not cause impacts associated with pole replacement activities at or above threshold significance levels for biological resources covered under WEMO. In addition, with implementation of APMs 3, 4, and 5, the proposed project would be consistent with the practices and measures set forth in WEMO.

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Would the Proposed Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Proposed Downs Substation Expansion

No Impact. No riparian or other sensitive habitats occur at the proposed Downs Substation expansion area.

115 kV Subtransmission Line Survey Corridors (Pole Replacement and Fiber Optic Telecommunication Cable Installation)

Less than Significant Impact. Fiber optic telecommunication cable would be placed on existing subtransmission poles using bucket trucks operating on existing roads. These roads cross a number of drainages that could be under the jurisdiction of the USACE or CDFG. Grading of the roadways during the Proposed Project is not anticipated, and areas of pole replacement would avoid jurisdictional waters. Therefore no significant impact to these drainages is anticipated.

Would the Proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Proposed Downs Substation Expansion

No Impact. Construction and operation of the proposed Downs Substation expansion would not impact any federally protected wetland. The small swale at the location is not jurisdictional because it is isolated and is not connected to other waterways.

115 kV Subtransmission Line Survey Corridors (Pole Replacement and Fiber Optic Telecommunication Cable Installation)

Less than Significant Impact. Fiber optic telecommunication cable would be placed on existing subtransmission poles using bucket trucks operating on existing roads. These roads cross a number of drainages that could be under the jurisdiction of the USACE or CDFG. Grading of the roadways for the Proposed Project is not anticipated, and areas of pole replacement would avoid jurisdictional waters. Therefore no significant impact to these drainages is anticipated.

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Would the Proposed Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Proposed Downs Substation Expansion

No Impact. The proposed Downs Substation expansion area is adjacent to the existing Downs Substation, a ball field, and areas containing native creosote bush-white bursage habitat. Due to the urbanization of the land surrounding this location, the highly disturbed nature of the adjacent habitat, and the Downs Substation expansion area's small size, the loss of habitat would not impact any established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

115 kV Subtransmission Line Survey Corridors (Pole Replacement and Fiber Optic Telecommunication Cable Installation)

Less than Significant Impact. Although various drainages and open desert areas could serve as migratory corridors, the replacement of subtransmission poles or the installation of fiber optic telecommunication cable would not change or restrict these corridors.

Would the Proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The construction and operation of the Proposed Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impacts would occur under this criterion as a result of the Proposed Project. The Proposed Project would not conflict with any local policies or ordinances protecting biological resources, or land use and conservation policies and ordinances on BLM lands, including WEMO where applicable. Therefore, no impacts would occur under this criterion as a result of the Proposed Project.

Would the Proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Proposed Project would not conflict with any provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional, or state habitat conservation plan, or land use and conservation policies and ordinances on BLM lands, including WEMO where applicable. Therefore, no impacts would occur under this criterion as a result of the Proposed Project.

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4.4.7 Applicant Proposed Measures

The following are SCE's APMs that assist in the avoidance or minimization of impacts related to biological resources.

1. In areas where the six subtransmission pole replacements would occur and where the telecommunication cable would be strung, the speed limits on all unpaved areas of the Proposed Project would be a maximum of 15 mph.
2. A Worker Environmental Awareness Program (WEAP) would be prepared, and 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 site and vicinity, the locations of the sensitive biological resources, their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all personnel trained would be maintained.
3. Pre-construction biological clearance surveys including surveys and monitoring would be performed to avoid or minimize impacts on special status plants, breeding birds, or wildlife species.
4. All replaced poles would be designed to be avian-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee [APLIC] 2006).
5. During the installation of fiber optic telecommunication cable and subtransmission poles, potential habitat for the desert tortoise and Mohave ground squirrel will be avoided. This will be accomplished through restricting vehicles to previously established access roads, with the oversight of biological monitors, and accessing the poles via bucket truck or climbing of the poles. In addition, the biological monitors will be responsible for avoiding impacts to nesting migratory birds (including burrowing owls) and drainages during construction through the use of appropriate mitigation measures, as determined by the monitoring biologist.

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