APPENDIX R:

POTENTIAL IMPACTS OF ENERGY CORRIDOR CONSTRUCTION AND OPERATION ON SPECIES LISTED, PROPOSED FOR LISTING, OR CANDIDATES FOR LISTING UNDER THE ENDANGERED SPECIES ACT

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R.1 INTRODUCTION[1]

The Proposed Action considered in this Programmatic Environmental Impact Statement (PEIS) is the amendment of existing land use management plans to designate federal energy corridors in 11 western states. As discussed in Section 3.8.2.4 of the PEIS, designation of these Section 368 energy corridors is expected to have no direct effect on ecological resources. However, species that are listed as threatened or endangered, species that are proposed for listing, or that are candidates for listing under the Endangered Species Act (ESA) could be affected by development and operation of energy transport projects within designated corridors or ROWs.

R.2 POTENTIAL IMPACTS OF ENERGY CORRIDOR CONSTRUCTION AND OPERATION ON THREATENED AND ENDANGERED SPECIES

In the project area (defined here as the counties crossed by designated corridors), there are 154 plant and 175 animal species that are federally listed as threatened or endangered, proposed for listing, or candidates for listing under the ESA (Table R). Included in the total number are 19 species of mollusks, 22 species of arthropods, 65 species of fishes, 11 species of amphibians, 6 species of reptiles, 22 species of birds, and 30 species of mammals. California has the largest number of listed species (142), whereas Montana and Wyoming have the fewest (6 and 8, respectively). Critical habitat has been designated for 108 of these species in the project area, and recovery plans have been developed for 226 of the species.

The PEIS provides a general evaluation of the impacts of project development (following corridor designation) on federally listed species. The information in this appendix provides supporting information for these evaluations. For each of the species in the project area, the following information is presented in Table R:

- Habitat typically used by the species,
- Area of designated corridors in counties in which the species is known to occur, and
- Area of the species' critical habitat crossed by designated corridors.

The potential for impacts on threatened and endangered species of construction and operation of energy transport systems within corridors are related to the amount of land disturbance, the duration and timing of construction periods, and the habitats crossed by the corridors. The magnitude of indirect effects, such as impacts resulting from erosion of disturbed land surfaces and disturbance and harassment of animal species, also are considered to be proportional to the amount of land disturbance. Impacts resulting from operations include the amount of land dedicated to operating facilities, noise from facilities, spread of invasive species, and increased human access. These impacts are summarized in Table 3.8-10 and discussed in Section 3.8.4.1.

Because detailed information will not be available until specific projects are proposed, the

[1] Shaded text indicates portions of the document that underwent revision between the draft and the final PEIS in response to comments received during the public comment period as well as additional information provided by local federal land managers and resource specialists.

evaluation presented here does not satisfy the ESA consultation requirements for project development. Impacts of project construction and operation would be considered in project-specific National Environmental Policy Act (NEPA) evaluations and ESA consultations prior to the start of any construction activities. Those evaluations would take into consideration the specific design alternatives being considered, construction, and the exact locations of project facilities.

A number of general mitigation measures related to threatened and endangered species protection are identified in Section 3.8.4.2. With these mitigation measures in place, many impacts to threatened and endangered can be avoided or minimized. Project-specific mitigation would be developed in consultation with the U.S. Fish and Wildlife Service as part of ESA consultations.

TABLE R Preferred Habitat and Area of Potentially Occupied and Critical Habitat of Species Listed, Proposed for Listing, or Candidates for Listing under the Endangered Species Act in Counties That Are Crossed by Designated Corridors

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Plants					
Acanthomintha ilicifolia	San Diego thornmint	T	Heavy clay soils in coastal sage scrub, grasslands, and chaparral. Only known from coastal San Diego Co., CA.	CA (San Diego-15)	NA[c]
Allium munzii	Munz's onion	E	Grassy openings in coastal-sage scrub on moist, heavy clays. Only known from the Gavilan Plateau region in western Riverside Co., CA.	CA (Riverside-258)	NA
Ambrosia pumila	San Diego ambrosia	E	Coastal scrub, grasslands, open floodplains and low valley bottoms below 150 m. Only known from southern San Diego and Riverside Co., CA.	CA (Riverside-258, San Diego-15)	NA
Arabis mcdonaldiana	McDonald's rock-cress	E	In dry open woods or brushy steep slopes or ledges with rocky serpentine or reddish soils derived from serpentinite.	CA (Siskiyou-27, Trinity-36)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Arctomecon humilis	Dwarf bear-poppy	E	Occurs on rolling low hills and ridge tops, often on barren, open sites in warm desert shrub communities at 700–1,402 m. On gypsiferous clay soils derived from the Moenkopi Formation. Endemic to Washington Co., UT.	UT (Washington-118)	NA
Arctostaphylos glandulosa crassifolia	Del Mar manzanita	E	Sandstone terraces and bluffs at <100 m elevation in low, fairly open southern maritime chaparral communities. Known only from San Diego Co., CA.	CA (San Diego-15)	NA
Arenaria paludicola	Marsh sandwort	E	Freshwater marshes from close to sea level to 450 m elevation with saturated, acidic, organic bog soils.	CA (Los Angeles-15, San Bernardino-1,288)	NA
Arenaria ursina	Bear Valley sandwort	T	Sparsely vegetated openings in forests at 1,800–2,300 m elevation. Pebble plains with dense clay soils, usually covered with a cobble pavement of quartzite. Known only from the Big Bear Valley-Holcomb Valley region in San Bernardino Co., CA.	CA (San Bernardino-1,288)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Artemisia campestris var. *wormskioldii*	Northern wormwood	C	Restricted to banks of the Columbia River in shrub-steppe vegetation. Grows on basalt, compacted cobble, and sand.	OR (Hood River-4, Multnomah-0.5, Wasco-22)	NA
Asclepias welshii	Welsh's milkweed	T	Coral Pink sand dunes in sagebrush, juniper, and ponderosa pine communities at 1,700–1,900 m.	UT (Kane-63)	Corridors do not cross critical habitat
Astragalus albens	Cushenbury milk-vetch	E	Primarily found on soils derived from decomposing limestone bedrock, especially open, very rocky slopes at 1,500–2,000 m elevation. Also known from lower elevations in rocky washes that receive limestone outwash and from granite and granite-quartzite substrates. Endemic to the east slope of the Transverse Range in San Bernardino Co., CA.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Astragalus ampullarioides	Shivwits milk-vetch	E	Endemic to gypsiferous substrates on the Chinle Formation.	UT (Washington-118)	Corridors do not cross critical habitat
Astragalus applegatei	Applegate's milk-vetch	E	Flat seasonally moist alkaline floodplain grasslands of the Klamath Basin, at about 1,250 m, on poorly drained fine silt loam.	OR (Klamath-69)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Astragalus brauntonii	Braunton's milk-vetch	E	Early successional brush-chaparral communities on limestone substrates. Foothills bordering the Los Angeles plain, from the Santa Monica, Santa Ana and San Gabriel Mountains, CA.	CA (Los Angeles-15, Orange-5)	Corridors do not cross critical habitat
Astragalus cremnophylax var. *cremnophylax*	Sentry milk-vetch	E	Fissures in fully exposed Kaibab Limestone pavement along the South Rim of the Grand Canyon, at about 2,130 m.	AZ (Coconino-198)	NA
Astragalus desereticus	Deseret milk-vetch	T	Juniper-sagebrush communities on open, steep, naturally disturbed south and west facing slopes of sandy-gravelly soils of the Moroni Formation at 1645–1740 m elevation. Known only from the Thistle Creek Valley near the town of Birdseye, UT.	UT (Utah-40)	NA
Astragalus holmgreniorum	Holmgren milk-vetch	E	Warm desert shrub communities on gravelly clay hills at 820–850 m elevation (at the upper elevational limit of the creosote bush zone). Range is only a few square miles; near the AZ-UT border.	AZ (Mohave-500); UT (Washington-118)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Astragalus humillimus	Mancos milk-vetch	E	Sandstone ledges or mesa tops, in cracks in the sandstone substrate or in shallow pockets of sandy soil at 1,695 m.	CO (Montezuma-42); NM (San Juan-90)	NA
Astragalus jaegerianus	Lane Mountain milk-vetch	E	Found most often in shrub communities. Known only from small area in the Mojave desert, San Bernardino Co., CA. Entire range is about 16 km in diameter on or in part on Coolgardie Mesa between Barstow and Golstone at an elevation of 900–1,200 m.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Astragalus lentiginosus var. *coachellae*	Coachella valley milk-vetch	E	Sandy areas in washes and on dunes in creosote bush scrub or in blow sand areas around valley margins. Endemic to the Coachella Valley, Riverside Co., CA.	CA (Riverside-258)	NA
Astragalus lentiginosus var. *piscinensis*	Fish Slough milk-vetch	T	Borders of sloughs in seasonally moist loamy fine sands, usually with an alkali crust. Restricted to a 16-km stretch of alkaline flats paralleling Fish Slough, Mono Co., CA.	CA (Inyo-166, Mono-31)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Astragalus magdalenae var. *peirsonii*	Peirson's milk-vetch	T	Slopes of mobile sand dunes in Sonoran desert scrub plant communities. Most often grows in conically shaped hollows on the leeward side of dunes.	CA (Imperial-369)	Corridors do not cross critical habitat, but corridor segment is located within 1.6 km of critical habitat
Astragalus montii	Heliotrope milk-vetch	T	Subalpine mixed grass-forb cushion plant communities on level to gently sloping pavement surfaces of Flagstaff Limestone at 3,231–3,338 m. Endemic to the Wasatch Plateau of central UT.	UT (Sanpete-17, Sevier-34)	NA
Astragalus osterhoutii	Osterhout milk-vetch	E	Restricted to highly seleniferous soils near Muddy Creek in Grand Co., CO. Found on moderate slopes at 2,250–2,400 m, sometimes growing up through sagebrush.	CO (Grand-42)	NA
Astragalus phoenix	Ash Meadows milk-vetch	T	Restricted to wetland habitats fed by springs and seeps where plants only grow in mineral-encrusted soil. Soils are composed of dry, white, barren flats, washes and alkaline knolls.	NV (Nye-277)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Astragalus pycnostachyus var. *lanosissimus*	Ventura Marsh milk-vetch	E	Coastal salt marshes.	CA (Los Angeles-15, Orange-5)	NA
Astragalus tener var. *titi*	Coastal dunes milk-vetch	E	Shallow swales on the flat surface of a coastal terrace in depressions that hold standing water during wet winter and spring seasons.	CA (Los Angeles-15, San Diego-15)	NA
Astragalus tortipes	Sleeping Ute milk-vetch	C	Exists in scattered colonies on the lower slopes of ridges and knolls of Cretaceous Mancos Shale which separates mountain foothills from desert badlands at 1,700–1,740 m. Endemic to the Ute Mountain Reservation in Montezuma Co., CO.	CO (Montezuma-42)	NA
Astragalus tricarinatus	Triple-ribbed milk-vetch	E	Sandy and gravelly soils of dry washes, or on decomposed granite or gravelly soils at the base of canyon slopes. Endemic to a small area extending from Morongo Wash to the hills northeast of Mecca in Riverside and San Bernardino Co., CA.	CA (Riverside-258, San Bernardino-1,288)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale	E	Highly alkaline soils in alkali sink scrub, alkali playa, vernal pools, and alkali grassland communities that are typically flooded by winter rains. Restricted to the San Jacinto, Perris, Menifee, and Elsinore Valleys of Riverside Co., CA.	CA (Kern-240, Riverside-258)	NA
Baccharis vanessae	Encinitas baccharis	T	Steep slopes; sandstone substrates in fairly open southern maritime chaparral and dense mixed chaparral communities at 60–335 m.	CA (San Diego-15)	NA
Berberis nevinii	Nevin's barberry	E	Margins of dry washes with sandy and gravelly substrates and alluvial shrub communities; and steep slopes with coarse soils and chaparral communities.	CA (Los Angeles-15, Riverside-258, San Bernardino-1,288)	NA
Brodiaea filifolia	Thread-leaved brodiaea	T	Endemic to southern CA; historical occurrences are from San Jacinto River floodplain, Riverside County and the lower San Bernardino Mountains. Grasslands, often in association with vernal pools and in floodplains at 90–300 m.	CA (Los Angeles-15, Orange-5, Riverside-258, San Diego-15)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Calochortus persistens	Siskiyou mariposa lily	C	Rocky, open areas in coniferous forests at 1,000–1,500 m. Endemic to the Siskiyou Mountains in northern CA and southern OR.	CA (Siskiyou-27)	NA
Calystegia stebbinsii	Stebbins' morning-glory	E	Early successional mixed chaparral communities on gabbro-derived and serpentine-derived soils.	CA (Nevada-22)	NA
Carex specuicola	Navajo sedge	T	Moist, sandy to silty soils of shady seep-spring pockets or alcoves with somewhat limited soil development at 1,740–1,830 m.	AZ (Coconino-198); UT (Kane-63, San Juan-249)	Corridors do not cross critical habitat
Castilleja christii	Christ's paintbrush	C	Usually on gentle, northerly facing slopes between 2,620 and 2,800 m on loamy shallow soils. Restricted to treeless subalpine habitats near the summit of Mount Harrison in southern ID.	ID (Cassia-14)	NA
Castilleja cinerea	Ash-grey paintbrush	T	Primarily found on pebble plains (dense clay soils, usually covered with a cobble pavement of quartzite), but also pine forests, dry sagebrush scrublands, and other habitats at 1,800–2,800 m. Endemic to the eastern end of the San Bernardino Mountains in southern CA.	CA (San Bernardino-1,288)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Caulanthus californicus	California jewelflower	E	Slightly alkaline sandy loam in native grassland or shrub-land near the San Joaquin Valley, CA.	CA (Kern-240)	NA
Ceanothus ophiochilus	Vail Lake ceanothus	T	Dry ridgetops and north to northeast-facing chaparral-covered slopes with phosphorous deficient soils formed from ultra-basic parent materials or weathered gabbro.	CA (Riverside-258)	NA
Centaurium namophilum	Spring-loving centaury	T	Moist to wet clay soils along the banks of streams and seepage areas. Endemic to Ash Meadows, NV.	CA (Inyo-166); NV (Nye-277)	Corridors do not cross critical habitat
Chorizanthe orcuttiana	Orcutt's spineflower	E	Open areas with sandy soils within low, fairly open southern maritime chaparral communities. Endemic to San Diego Co., CA.	CA (San Diego-15)	NA
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	C	Coastal scrub with sandy soils. The plant is currently known from two disjunct localities: one site in southeastern Ventura Co. and a second in southwestern Los Angeles Co., CA.	CA (Los Angeles-15, Orange-5)	NA
Cordylanthus maritimus maritimus	Salt marsh bird's-beak	E	Upper terraces and higher edges of coastal salt marshes where tidal inundation is periodic.	CA (Los Angeles-15, Orange-5, San Bernardino-1,288, San Diego-15)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Coryphantha robbinsorum	Cochise pincushion cactus	T	Gray limestone hills within a semidesert grassland, with small shrubs, other succulents, and grama grasses at 1,280 m. Known from only one population in southeast AZ.	AZ (Cochise-12)	NA
Coryphantha scheeri var. *robustispina*	Pima pineapple cactus	E	Alluvial valleys, mesas, and hillsides in desert, desert grassland, or southwestern oak woodlands at 700–1500 m.	AZ (Santa Cruz-25)	NA
Coryphantha sneedii var. *leei*	Lee pincushion cactus	T	Limestone ledges, slopes and ridgetops at 1,220–1,800 m in interior chaparral communities.	NM (Eddy-10)	NA
Coryphantha sneedii var. *sneedii*	Sneed pincushion cactus	E	Limestone ledges and slopes of high hills in desert and desert grassland, at 1,220–1,800 m elevation.	NM (Eddy-10)	NA
Cycladenia jonesii	Jones cycladenia	T	Desert shrub communities of barren gypsiferous clay hills that form the steep sides and lower slopes of mesas in the canyonlands section of the Colorado Plateau.	AZ (Coconino-198); UT (Emery-55, Grand-156, Kane-63)	NA
Deinandra conjugens	Otay tarplant	T	Coastal sage scrub and grassland habitats below 300 m on clay soils. Endemic to southwestern San Diego County, CA.	CA (San Diego-15)	Corridors do not cross critical habitat

TABLE R (Cont.)

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Dodecahema leptoceras	Slender-horned spineflower	E	Old sandy benches or floodplain terraces containing alluvial fan scrub just below 700 m.	CA (Los Angeles-15, Riverside-258, San Bernardino-1,288)	NA
Dudleya cymosa marcescens	Marcescent dudleya	T	Sheer volcanic cliffs and canyon walls in canyons with perennial streams. Usually with mosses and lichens in places too steep for soils to form. Restricted to the Santa Monica Mountains of southern CA.	CA (Los Angeles-15)	NA
Dudleya cymosa ovatifolia	Santa Monica Mountains dudleya	T	North-facing slopes and cliffs in chaparral communities and in deep canyon bottoms and typically on sedimentary conglomerate rock.	CA (Los Angeles-15, Orange-5)	NA
Dudleya stolonifera	Laguna Beach liveforever	T	North-facing, sandstone or conglomerate cliffs in coastal sage. Primarily restricted to weathered sandstone rock outcrops on cliffs in microhabitats within coastal sage scrub or chaparral.	CA (Orange-5)	NA
Echinocactus horizonthalonius var. *nicholii*	Nichol's Turk's head cactus	E	Unshaded microsites in Sonoran desert scrub on dissected alluvial fans at the foot of limestone mountains, and on inclined terraces and saddles on limestone mountain sides at 730–1,250 m.	AZ (Pinal-25)	NA

TABLE R (Cont.)

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Echinocereus fendleri var. *kuenzleri*	Kuenzler hedgehog cactus	E	Limestone ledges, rock cracks, and gentle slopes; sunny, grass-covered hillsides in pinyon-juniper savannah at 1,770–2,100 m.	NM (Chaves-39, Eddy-10, Lincoln-1)	NA
Echinocereus triglochidiatus var. *arizonicus*	Arizona hedgehog cactus	E	Oak woodlands and chaparral at 1,050–1,410 m, and usually in clumps among granite boulders.	AZ (Gila-65, Pinal-25)	NA
Echinomastus erectocentrus var. *acunensis*	Acuna cactus	C	Open, rounded small hills, benches and flats at 390–600 m on well drained knolls in Sonoran desert scrub. Associated with granite or granodiorite materials, with coarse to fine texture.	AZ (Maricopa-273, Pinal-25)	NA
Enceliopsis nudicaulis var. *corrugata*	Ash Meadows sunray	T	Saltbush scrub near springs at 700–735 m and on whitish, strongly saline soils associated with pale limestone outcrops and dry washes. Endemic to the Ash Meadows region of southern NV.	NV (Nye-277)	Corridors do not cross critical habitat
Eremalche kernensis	Kern mallow	E	Chenopod scrub, valley and foothill grassland at 70–1,000 m. Endemic to Kern County, CA.	CA (Kern-240)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Eriastrum densifolium sanctorum	Santa Ana river woolly-star	E	Chaparral, coastal scrub at 150–610 m above main watercourses on fluvial deposits where flooding and scouring have been infrequent enough to allow the persistence of open shrublands in the floodplain.	CA (Orange-5, Riverside-258, San Bernardino-1,288)	NA
Erigeron decumbens var. *decumbens*	Willamette daisy	E	Clay soiled prairie in valley bottoms, often by creek drainages.	OR (Clackamas-66, Linn-3, Washington-2)	NA
Erigeron lemmonii	Lemmon fleabane	C	Crevices and ledges in limestone canyon walls and on vertical faces of large boulders along canyon bottoms surrounded by pine-oak woodland at 1,920–2,225 m elevation. Endemic to southeastern AZ.	AZ (Cochise-12)	NA
Erigeron maguirei	Maguire daisy	T	Exposed mesas and steep, narrow canyons in Navajo Sandstone. Cool, shaded, mesic sites in crevices. Also found in cool, mesic wash bottoms and dry, partially shaded slopes of eroded sandstone cliffs at 1,600–2,170 m elevation.	UT (Emery-55, Garfield-53)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Erigeron parishii	Parish's daisy	T	Blackbrush scrub, pinyon, and pinyon-juniper woodland communities, usually on substrates derived from limestone or dolomite on dry rocky slopes and outwash plains at 800–2,000 m elevation.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Erigeron rhizomatus	Zuni fleabane	T	Pinyon-juniper woodlands on steep, easily eroded sandstone slopes and clay banks, usually in close association with the Chinle and Baca Formations at 2,190–2,400 m.	NM (McKinley-7)	NA
Eriogonum diatomaceum	Churchill Narrows buckwheat	C	Rounded knolls, low ridges, slopes, and small drainages with dry, barren, and undisturbed clay to silty diatomaceous deposits of the Coal Valley Formation and a variable volcanic cobble overburden at 1,300–1,410 m.	NV (Lyon-283)	NA
Eriogonum gypsophilum	Gypsum wild-buckwheat	T	Open, semi-arid grama grassland at about 1,500 m and on gypsum soils.	NM (Eddy-10)	Corridors do not cross critical habitat
Eriogonum kennedyi var. *austromontanum*	Southern mountain wild-buckwheat	T	Sparsely vegetated openings (pebble plains) in forest at 1,800–2,300 m elevation.	CA (San Bernardino-1,288)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Eriogonum ovalifolium var. *vineum*	Cushenbury buckwheat	E	Desert slopes primarily in open areas on substrates derived from limestone or dolomite at 1,400–2,400 m. Soils are typically powdery with little organic matter and numerous rocks.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Eriogonum ovalifolium var. *williamsiae*	Steamboat buckwheat	E	Open areas on the slopes of deep (approximately 25 m) siliceous hot springs deposits. Restricted to a 51 ha site near a hot spring system in Washoe County, NV.	NV (Washoe-242)	NA
Eriogonum pelinophilum	Clay-loving wild-buckwheat	E	Rolling adobe (clay) hills and flats with sparse salt desert shrub communities at 1,580–1,950 m on substrates derived from Mancos Formation shales.	CO (Delta-22, Montrose-122)	Corridors do not cross critical habitat
Eryngium aristulatum var. *parishii*	San Diego button-celery	E	Vernal pools on the Santa Rosa Plateau.	CA (Riverside-258, San Diego-15)	NA
Fremontodendron californicum decumbens	Pine Hill flannelbush	E	Tops of rocky ridges and on scattered rock outcrops of gabbro in chaparral communities or in the ecotone between chaparral and woodland. Endemic to western El Dorado Co., CA.	CA (Nevada-22)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Fremontodendron mexicanum	Mexican flannelbush	E	Slopes covered with southern mixed chaparral, closed cone coniferous forest, and canyons at 300–1,000 m.	CA (San Diego-15)	NA
Fritillaria gentneri	Gentner's fritillary	E	Open, somewhat dry, low elevation, mixed oak-madrone woodlands, ponderosa pine woodlands, and chaparral.	OR (Jackson-15)	NA
Grindelia fraxino-pratensis	Ash Meadows gumplant	T	Saltgrass meadows along streams and pools; occasionally in alkali clay soils in drier areas. Endemic to the greater Ash Meadows region in western NV and southeastern CA.	CA (Inyo-166); NV (Nye-277)	Corridors do not cross critical habitat
Hackelia venusta	Showy stickseed	E	Open areas with sparse vegetation and openings within the ponderosa pine and Douglas-fir forests that are maintained by occasional wildfires. On dry, loose, granitic sand, and in crevices of granite at 300–540 m.	WA (Chelan-9)	NA
Hazardia orcuttii	Orcutt's hazardia	C	On clay soils within maritime chaparral or coastal sage scrub communities at 80–200 m. Known from only one site in San Diego County, CA.	CA (San Diego-15)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Hedeoma todsenii	Todsen's pennyroyal	E	Open pinyon-juniper woodland with steep gravelly north- and east-facing hillsides and limestone soils at 2,000 m.	NM (Sierra-66)	Corridors do not cross critical habitat
Helianthus paradoxus	Pecos sunflower	T	Desert wetlands, stream margins, and the margins of impoundments with saturated saline soils.	NM (Chaves-39, Guadalupe-9, Socorro-56)	NA
Howellia aquatilis	Water howellia	T	Small vernal wetlands with firmly consolidated bottoms including shallow, low-elevation glacial pothole ponds and river oxbows with margins of deciduous trees and shrubs.	CA (Trinity-36); MT (Missoula-12); OR (Clackamas-66, Multnomah-0.5)	NA
Ivesia kingii var. *eremica*	Ash Meadows ivesia	T	Endemic to a single spring-fed desert wetland with saline soils in the Ash Meadows area of western NV at 657–690 m.	NV (Nye-277)	Corridors do not cross critical habitat
Ivesia webberi	Webber ivesia	C	Open habitats with shallow clay soils and a gravelly surface layer over volcanic bedrock, on benches and flats at 1,360–1,820 m.	CA (Lassen-87, Sierra-15, Nevada-22); NV (Washoe-242)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Layia carnosa	Beach layia	E	Sparsely vegetated semi-stabilized dunes, usually behind foredunes, near sea level to 30 m along the north coast and San Francisco Bay area of CA.	CA (Humboldt-2)	NA
Lesquerella congesta	Dudley Bluffs bladderpod	T	Barren white outcrops exposed along drainages through erosion from downcutting of streams in the Piceance Basin at 1,830–2,040 m.	CO (Rio Blanco-127)	NA
Lesquerella kingii bernardina	San Bernardino Mountains bladderpod	E	Dolomite substrates with little accumulation of organic material, typically on open, gentle to moderate slopes within pine-juniper woodlands and fir forests at 2,100–2,700 m.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Lesquerella tumulosa	Kodachrome bladderpod	E	Extremely dry, sparsely vegetated, white shale knolls with thin soils derived from the Windsor Member of the Carmel Formation.	UT (Kane-63)	NA
Lilaeopsis schaffneriana var. *recurva*	Huachuca water-umbel	E	Mid-elevation wetlands, riverine systems, and springs at about 1,150–2,130 m elevation.	AZ (Cochise-12, Santa Cruz-25)	Corridors do not cross critical habitat

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Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Lilium occidentale	Western lily	E	Pacific coastal wetlands near the edges of early successional, wet sphagnum bogs and forest or thicket openings along the margins of ephemeral ponds and small streams. Also in coastal scrub and prairie.	CA (Humboldt-2)	NA
Limnanthes floccosa grandiflora	Large-flowered woolly meadowfoam	E	Valley bottom river terrace vernal pools at elevations of 375–400 m, on gravelly flat areas, along the vernal pool margins. Endemic to the Rogue River Valley in Jackson County, OR.	OR (Jackson-15)	NA
Lomatium bradshawii	Bradshaw's desert-parsley	E	Open, clay soil bottomland with seasonal standing water. Endemic to OR and southern WA.	OR (Linn-3)	NA
Lomatium cookii	Cook's lomatium	E	Margins and bottoms of vernal pools and seasonally moist alluvial floodplains surrounded by serpentine upland savannas.	OR (Jackson-15)	NA
Lupinus sulphureus kincaidii	Kincaid's lupine	T	Remnant stands of native grassland in a narrow range west of the Cascade Mountains from Douglas Co., OR, to Lewis Co., WA.	OR (Douglas-19, Linn-3, Washington-2)	NA

TABLE R (Cont.)

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Mentzelia leucophylla	Ash Meadows blazingstar	T	Near springs and along canyon washes in a desert wetland maintained by springs and seeps that are fed by an extensive groundwater system. Found in light-colored, fine-grained soils with a high salt content at 670–1,980 m elevation.	NV (Nye-277)	Corridors do not cross critical habitat
Monardella linoides viminea	Willowy monardella	E	Sandy washes and floodplains in coastal sage scrub and chaparral or riparian scrub habitats.	CA (San Diego-15)	NA
Monolopia congdonii	San Joaquin wooly-threads	E	Chenopod scrub, valley and foothill grassland on sandy soils.	CA (Kern-240)	NA
Navarretia fossalis	Spreading navarretia	T	Vernal pools and occasionally in ditches and other human-created depressions within degraded vernal pool habitats.	CA (Los Angeles-15, Riverside-258, San Diego-15)	NA
Nitrophila mohavensis	Amargosa niterwort	E	Mesic playas on clay substrates and in alkaline flats.	CA (Inyo-166); NV (Nye-277)	Corridors do not cross critical habitat
Oenothera avita eurekensis	Eureka Valley evening-primrose	E	Desert dunes. Known only from the Eureka Dunes in Inyo Co., CA.	CA (Inyo-166)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Opuntia treleasei	Bakersfield cactus	E	Sandy soils of flats and low hills mostly in grassland, scrub, and woodland communities at 120–550 m.	CA (Kern-240)	NA
Orcuttia californica	California orcutt grass	E	Beds of dried vernal pools typically in grassland or chaparral at 15–600 m.	CA (Los Angeles-15, Riverside-258, San Diego-15)	NA
Orcuttia tenuis	Slender orcutt grass	T	Vernal pools with a very well developed clay soil profile.	CA (Lassen-87, Modoc-118, Siskiyou-27, Shasta-21)	Corridors do not cross critical habitat
Oxytheca parishii var. *goodmaniana*	Cushenbury oxytheca	E	Limestone and dolomite talus. Known only to exist in the San Bernardino Mountains of southern CA.	CA (San Bernardino-1,288)	Corridors do not cross critical habitat
Pediocactus bradyi	Brady pincushion cactus	E	Desert benches and terraces made up of Kaibab limestone chips overlying Moenkopi shale and sandstone-derived soils at 1,170–1,370 m. Endemic to the Marble Gorge area of northern AZ.	AZ (Coconino-198)	NA
Pediocactus despainii	San Rafael cactus	E	Hills, benches and flats, of open, semi-arid grassland with scattered junipers and pinyon pines in central UT.	UT (Emery-55)	NA

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Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Pediocactus knowltonii	Knowlton cactus	E	Dry pinyon-juniper woodlands at 1,800–2,000 m elevation on alluvial deposits with gravelly, dark, sandy loams on slopes or hills.	NM (San Juan-90)	NA
Pediocactus peeblesianus fickeiseniae	Fickeisen plains cactus	C	Shallow gravelly soils of Kaibab limestone on the margins of canyons or well drained hills in Navajoan Desert, Great Basin Desert scrub, and Great Plains Grassland at 1,200–1,500 m.	AZ (Coconino-198, Mohave-500, Navajo-4)	NA
Pediocactus peeblesianus var. *peeblesianus*	Peebles Navajo cactus	E	Low hills covered by round river gravel at 1,645–1,700 m elevation. Endemic to the Colorado Plateau in Navajo Co., AZ.	AZ (Navajo-4)	NA
Pediocactus sileri	Siler pincushion cactus	T	Low elevation (about 850 m) Mohave Desert scrub up to conifer woodlands and grasslands at 1,650 m on soils derived from the Moenkopi Formation that are high in gypsum and soluble salts.	AZ (Coconino-198, Mohave-500); UT (Kane-63, Washington-118)	NA
Pediocactus winkleri	Winkler cactus	T	Salt desert shrub communities at 1,450–1,600 m elevation on alkaline, fine-textured soils, primarily derived from the Dakota Formation. Endemic to a small area of southcentral Utah.	UT (Emery-55)	NA

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Penstemon debilis	Parachute beardtongue	C	Oil shale outcrops, on south-facing, steep white shale talus on the Mahogany Zone of the Parachute Creek Member of the Green River Formation. On steep slopes from 2,400 to 2,800 m.	CO (Garfield-49)	NA
Penstemon penlandii	Penland beardtongue	E	Runoff channels, shaded by the deeply cut banks at 2,290–2,350 m on alkaline clays containing selenium.	CO (Grand-42)	NA
Penstemon scariosus albifluvis	White River beardtongue	C	Pinyon-juniper-desert shrub or desert shrub communities on substrates composed of fine textured soils and shale fragments weathered from the Green River Formation at 1,561–2,036 m.	CO (Rio Blanco-127); UT (Uintah-97)	NA
Pentachaeta lyonii	Lyon's pentachaeta	E	Small grassland sites that intergrade with shrublands on soils covered with a microbiotic crust and with low total plant cover. Endemic to the mountains surrounding the Los Angeles Co. Basin, CA.	CA (Los Angeles-15)	Corridors do not cross critical habitat
Phacelia argillacea	Clay phacelia	E	Steep slopes in sparse juniper-pinyon and mountain brush communities. Only two populations are known to exist in UT.	UT (Emery-55)	NA

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Phacelia stellaris	Brand's phacelia	C	Sandy open places, sand dunes, and silty plains near the coast, within coastal strand and coastal sage scrub communities at 1–400 m.	CA (Los Angeles-15, San Diego-15)	NA
Phacelia submutica	Debeque phacelia	C	Barren, cracked clay soils of the Wasatch Formation often on steep exposures.	CO (Garfield-49, Mesa-297)	NA
Phlox hirsuta	Yreka phlox	E	Serpentine talus in lower and upper montane coniferous forest communities at 885–1,500 m. Only four populations are known to exist in Siskiyou Co., CA.	CA (Siskiyou-27)	NA
Physaria obcordata	Dudley Bluffs twinpod	T	Barren oil shale outcrops along the Piceance and Yellow Creek drainages and at Calamity Ridge in Rio Blanco Co., CO.	CO (Rio Blanco-127)	NA
Plagiobothrys hirtus	Rough popcornflower	E	Open, moist, poorly drained clay soils at 100–150 m. Known only from the Umpqua Valley in western OR.	OR (Douglas-19)	NA
Poa atropurpurea	San Bernardino bluegrass	E	Edges of moist meadows in the San Bernardino, Palomar, and Laguna Mountains of southern CA at 1,500–2,300 m.	CA (San Bernardino-1,288, San Diego-15)	NA

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Pogogyne abramsii	San Diego mesa-mint	E	Endemic to vernal pools on coastal terraces in San Diego Co., CA at 100–200 m.	CA (San Diego-15)	NA
Pogogyne nudiuscula	Otay mesa-mint	E	Restricted to vernal pools and moist flats in chaparral and coastal sage scrub in San Diego Co., CA.	CA (San Diego-15)	NA
Potentilla basaltica	Soldier Meadows cinquefoil	C	Moist salt-crusted clay in alkaline meadows above, and outflow stream margins below, desert springs (often thermal), generally on flat to slight southeast aspects at 1,330–1,560 m.	NV (Humboldt-161)	NA
Pseudobahia peirsonii	San Joaquin adobe sunburst	T	Grasslands and grassland-blue oak woodland community ecotones in the Central Valley of CA. Generally occurs in areas with small mounds (30 cm to 2 m in height) interspersed with shallow basins that may form vernal pools.	CA (Kern-240)	NA
Purshia subintegra	Arizona cliff-rose	E	Gravelly clay loams over limestone on rolling hills dominated by creosote bush.	AZ (Maricopa-273, Mohave-500, Yavapai-148)	NA

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Ranunculus aestivalis	Autumn buttercup	E	Sevier River Valley, where fresh water seeps and springs surface, creating marshy or bog-like conditions at 1,938–1,965 m.	UT (Garfield-53)	NA
Rorippa gambellii	Gambel's watercress	E	Permanent wetlands, marshes, or along the borders of lakes and slow-flowing streams or ditches with acidic sandy peat soils at sea level to 450 m.	CA (Los Angeles-15, Orange-5, San Bernardino-1,288, San Diego-15)	NA
Rorippa subumbellata	Tahoe yellow cress	C	Coarse sand and sandy soils (often among cobbles or boulders) of active beaches, stream inlets, beach dunes, and backshore depressions, at 1,896–1,899 m. Endemic to the shore zone of Lake Tahoe in CA and NV.	CA (Nevada-22, Placer-7); NV (Washoe-242)	NA
Schoenocrambe argillacea	Clay reed-mustard	T	Mixed desert shrub communities on precipitous, typically north-facing slopes of the Evacuation Creek Member of the Green River Formation at 1,463–1,768 m. These slopes consist of at-the-surface bedrock, scree, and fine-textured soils.	UT (Uintah-97)	NA

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Schoenocrambe barnebyi	Barneby reed-mustard	E	Mixed desert shrub communities on steep, typically north-facing slopes on red, selenium-rich, fine textured soils of the Moenkopi and Chinle formations at 1,705–1,985 m.	UT (Emery-55)	NA
Schoenocrambe suffrutescens	Shrubby reed-mustard	E	Mixed desert shrub communities, pinyon-juniper, and desert shrub, on semi-barren, white-shale layers of the Evacuation Creek Member of the Green River Formation at 1,555–1,981 m and on level to moderately sloping surfaces.	UT (Uintah-97)	NA
Sclerocactus glaucus	Uinta Basin hookless cactus	T	Cobble, gravel, or rock surfaces on river terrace deposits and lower mesa slopes in the clay badlands of Pariette Draw south of Myton, UT and on lower slopes of dry, rocky alkaline hills, especially below the lips of hills and benches of Pleistocene terraces above the Green River. Elevations range from 1,200 to 2,000 m.	CO (Delta-22, Garfield-49, Mesa-297, Montrose-122); UT (Carbon-26, Uintah-97)	NA
Sclerocactus mesae-verdae	Mesa Verde cactus	T	Dry low exposed hills and mesas in full sun on Mancos or Fruitland clays in the desert at 1,200–2,000 m.	CO (Montezuma-42); NM (San Juan-90)	NA

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Sclerocactus wrightiae	Wright fishhook cactus	E	Barren, alkaline soils with widely scattered shrubs, perennial herbs, bunch grasses, or scattered pinyon and juniper at 1,460–1,865 m.	UT (Emery-55, Sevier-34)	NA
Senecio franciscanus	San Francisco Peaks groundsel	T	Alpine tundra areas on sparsely vegetated loose talus slopes at 3,350–3,750 m usually just above southwestern montane spruce-fir or bristlecone pine forests.	AZ (Coconino-198)	Corridors do not cross critical habitat
Sidalcea nelsoniana	Nelson's checker-mallow	T	Moist, open ground primarily where remnant patches of native prairie still occur, such as along roadsides, fencerows, and old cemeteries and where the prairie merges with deciduous woodland.	OR (Columbia-7, Linn-3, Washington-2)	NA
Sidalcea oregana var. *calva*	Wenatchee Mountains checker-mallow	E	Moist meadows with surface water or saturated upper soils dominated by perennial herbs and rhizomatous, perennial grasses.	WA (Chelan-9)	Corridors do not cross critical habitat
Sidalcea pedata	Pedate checker-mallow	E	Loamy clay of moist pebble plain meadows, and occasionally in dry meadows at 1,600–2,500 m.	CA (San Bernardino-1,288)	NA

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Spiranthes delitescens	Canelo Hills ladies'-tresses	E	Wetlands that are seasonally or continuously saturated, but are not subject to scouring floods, and that have organic soils. Known from only 4 wetlands in southern AZ at 1,525 m.	AZ (Cochise-12, Santa Cruz-25)	NA
Spiranthes diluvialis	Ute ladies'-tresses	T	Moist to very wet meadows along streams, abandoned stream meanders, springs, seeps, and lakeshores at 1,300–1,600 m.	CO (Moffat-159); ID (Bonneville-7, Jefferson-20); MT (Beaverhead-38, Broadwater-2, Jefferson-55, Madison-2); NV (Lincoln-261); UT (Daggett-29, Garfield-53, Tooele-123, Uintah-97, Utah-40, Wasatch-15); WY (Converse-3)	NA
Stephanomeria malheurensis	Malheur wire-lettuce	E	Known only from a single hilltop of volcanic tuff near Malheur and Harney Lakes in Harney Co., OR.	OR (Harney-162)	Corridors do not cross critical habitat
Swallenia alexandrae	Eureka dune grass	E	Desert dunes of Eureka Valley, CA, with a unique topographic feature that results in locally higher precipitation.	CA (Inyo-166)	NA
Taraxacum californicum	California taraxacum	E	Edges of moist meadows at 1620–2800 m. Endemic to the San Bernardino Mountains of southern CA.	CA (San Bernardino-1,288)	NA

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Thelypodium howellii spectabilis	Howell's spectacular thelypody	T	Endemic to a small range in northeastern Oregon in the Baker-Powder River Valley at 1,000–1,100 m.	OR (Crook-33, Deschutes-77, Harney-162, Klamath-69, Lake-188)	NA
Thelypodium stenopetalum	Slender-petaled mustard	E	Restricted to the meadows of Big Bear Basin in San Bernardino Co., CA.	CA (San Bernardino-1,288)	NA
Thlaspi californicum	Kneeland Prairie penny-cress	E	Serpentine rock outcrops in coastal prairie habitat at 760 m. Known from only one location in Humboldt Co., CA.	CA (Humboldt-2)	Corridors do not cross critical habitat
Townsendia aprica	Last chance townsendia	T	Pinyon-juniper and salt desert shrub communities on barren, silty, silty clay, or gravelly clay soils of the Mancos Shale Formation at 1,695–2,440 m.	UT (Emery-55, Sevier-34)	NA
Trichostema austromontanum compactum	Hidden Lake bluecurls	T	Endemic to a single vernal pool in the San Jacinto Mountains of southern CA at 2,400 m.	CA (Riverside-258)	NA
Tuctoria greenei	Greene's tuctoria	E	Grows in the bottom of dried vernal pools in open grassland on the eastern side of the Sacramento and San Joaquin Valleys, CA.	CA (Shasta-21)	Corridors do not cross critical habitat

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Verbesina dissita	Big-leaved crownbeard	T	Coastal hillsides and canyons in dense southern maritime chaparral communities, coastal sage scrub, and mixed chaparral communities below 100 m.	CA (Orange-5)	NA
Yermo xanthocephalus	Desert yellowhead	T	Barren outcrops of white silty clay of the Split Rock Formation with bowl-like topography that allows for snow accumulation. Restricted to the Sweetwater River Plateau in Fremont Co., WY.	WY (Fremont-20)	Corridors do not cross critical habitat
Mollusks					
Assiminea pecos	Pecos assiminea snail	E	Moist soil beside flowing water, beneath salt grass or sedges, less often on exposed surfaces.	NM (Chaves-39)	NA
Juturnia kosteri	Koster's springsnail	E	Pebbles, gypsum silt and submerged portions of vegetation in gypsum thermal seeps and high volume springs and spring runs.	NM (Chaves-39)	NA
Lanx sp.	Banbury springs limpet	E	Spring runs with well oxygenated water on boulder or cobble substrates. Restricted to three springs along the Snake River in ID.	ID (Gooding-7)	NA

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Oreohelix peripherica wasatchensis	Ogden mountainsnail	C	Leaf litter within a small maple grove in quartzite boulder area near the mouth of Ogden Canyon in UT.	UT (Weber-1)	NA
Oxyloma haydeni kanabensis	Kanab ambersnail	E	Springs and seeps at base of sandstone or limestone cliffs. Associated with perennially wet surface soil or shallow standing water.	AZ (Coconino-198); UT (Kane-63)	NA
Physa natricina	Snake River physa snail	E	Swift currents of the mainstem Snake River on the undersides of gravel and boulder substrates.	ID (Elmore-79, Gooding-7, Minidoka-9, Owyhee-122)	NA
Popenaias popei	Texas hornshell	C	Shallow, narrow run habitats over travertine bedrock where small-grained sediments collect in undercut riverbanks, crevices, shelves, and at the base of large boulders.	NM (Eddy-10)	NA
Pyrgulopsis bruneauensis	Bruneau hot springsnail	E	Rocks, mud, gravel, and algal film in thermal springs (up to 35°C) and their outflows at 800 m.	ID (Owyhee-122)	NA
Pyrgulopsis chupaderae	Chupadera springsnail	C	Restricted to a < 20 m long outflow along a wetland system in the Rio Grande drainage. Endemic to the south end of the Chupadera Mountains in Socorro Co., NM.	NM (Socorro-56)	NA

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Pyrgulopsis gilae	Gila springsnail	C	Cool to warm waters (14–27°C) that issue from fissures in rhyolite adjacent to the Gila River.	NM (Grant-5)	NA
Pyrgulopsis idahoensis	Idaho springsnail	E	Springs, spring-fed streams, large rivers, and lakes on the undersides of pebbles and cobbles in very shallow water to depths in excess of 5 m., where it occurs on submerged aquatic plants.	ID (Elmore-79, Owyhee-122)	NA
Pyrgulopsis morrisoni	Page springsnail	C	Head springs, seeps and lateral spring runs with slow to moderate flows.	AZ (Yavapai-148)	NA
Pyrgulopsis neomexicana	Socorro springsnail	E	Endemic to a single thermal spring system (17°C) in Socorro Co., NM.	NM (Socorro-56)	NA
Pyrgulopsis roswellensis	Roswell springsnail	E	Spring heads and runs with variable water temperatures (10–20°C) and slow-to-moderate water velocities over compact substrate ranging from deep organic silts to gypsum sands and gravel and compact substrate.	NM (Chaves-39)	NA
Pyrgulopsis thermalis	New Mexico springsnail	C	Cooler portions of hot springs on algae-covered stones and rock faces, with and without dense grasses.	NM (Grant-5)	NA

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Pyrgulopsis thompsoni	Huachuca springsnail	C	Springs and wetland habitats in shallow water on rocks around the spring sources. Known from the Santa Cruz and San Pedro River basins in AZ.	AZ (Cochise-12, Santa Cruz-25)	NA
Taylorconcha serpenticola	Bliss rapids snail	T	Springs and unpolluted, riverine habitats on stable rocky substrates in areas associated with spring influences or rapids.	ID (Bingham-0.5, Elmore-79, Gooding-7, Twin Falls-110)	NA
Tryonia alamosae	Alamosa springsnail	E	Cobble, gravel, and sand substrate with algal film in thermal (27–28°C) spring pools and runs. More common in moderate than fast flowing water; often under algae or water cress mats. Endemic to a single spring system in the Rio Grande Basin of western NM.	NM (Socorro-56)	NA
Valvata utahensis	Utah valvata snail	E	Deep pools adjacent to rapids, or flowing waters associated with large spring complexes among submerged aquatic plants on fine silt substrate. Historically known from the Snake River in ID and in UT.	ID (Cassia-14, Gooding-7, Minidoka-9, Power-11, Twin Falls-110)	NA

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Arthropods					
Ambrysus amargosus	Ash Meadows naucorid	T	Gravel bottom of swift flowing hot springs in a few inches of water. Endemic to the Ash Meadows region in western NV.	NV (Nye-277)	Corridors do not cross critical habitat
Ambrysus funebris	Nevares Spring naucorid bug	C	Limited to the Travertine-Nevares Springs Complex within Death Valley National Park, Inyo County, CA.	CA (Inyo-166)	NA
Branchinecta lynchi	Vernal pool fairy shrimp	T	Ephemeral water of swales and vernal pools most commonly in grassy or mud bottomed swales or depression pools in unplowed grasslands.	CA (Placer-7, Shasta-21); OR (Jackson-15)	Corridors do not cross critical habitat, but corridor segment is less than 8 km from critical habitat in Jackson Co., OR
Branchinecta sandiegonensis	San Diego fairy shrimp	E	Small, shallow vernal pools and ephemeral basins that range in depth from 5–30 cm. All known localities below 701 m and within 64 km of the Pacific Ocean.	CA (Orange-5, San Diego-15)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Cicindela albissima	Coral pink sand dunes tiger beetle	C	Adults spend most of their time on the upper portions of the dunes and very little time in the interdune swales. Larvae are largely restricted to the swales and the lower slopes of adjacent dunes. Endemic to the Coral Pink Sand Dunes in Kane Co., UT.	UT (Kane-63)	NA
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	T	Elderberry shrub communities, associated with riparian areas along rivers and streams. Endemic to the Central Valley in CA.	CA (Kern-240, Shasta-21)	NA
Euphilotes battoides allyni	El Segundo blue butterfly	E	Sand dunes with its larval and adult host plant cliff buckwheat (*Eriogonum parvifolium*). Currently known only from two locations in Los Angeles Co., CA.	CA (Los Angeles-15)	NA
Euphydryas editha quino	Quino checkerspot butterfly	E	Chaparral, coastal sage scrub in southern CA.	CA (Riverside-258, San Diego-15)	Corridor crosses approximately 0.5 km^2 of critical habitat in southern San Diego County, CA
Euproserpinus euterpe	Kern primrose sphinx moth	T	Open weedy areas in desert scrub.	CA (Kern-240)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Gammarus desperatus	Noel's amphipod	E	Warm (20–25°C) mineralized water. Endemic to the Pecos River Basin in NM.	NM (Chaves-39)	NA
Glaucopsyche lygdamus palosverdesensis	Palos Verdes blue butterfly	E	Confined to coastal sage scrub communities.	CA (Los Angeles-15)	Corridors do not cross critical habitat
Heterelmis stephani	Stephan's riffle beetle	C	Known only from two springs in the Santa Rita Mountains and Madera Canyon, AZ.	AZ (Santa Cruz-25)	NA
Icaricia icarioides fenderi	Fender's blue butterfly	E	Restricted to certain lupine habitats.	OR (Linn-3)	NA
Lepidurus packardi	Vernal pool tadpole shrimp	E	Natural and artificial seasonally ponded habitats including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities.	CA (Shasta-21)	Corridors do not cross critical habitat
Pacifastacus fortis	Shasta crayfish	E	Slow flowing water and lakes with cold, clear, well oxygenated water that is mostly spring fed.	CA (Shasta-21)	NA
Polites mardon	Mardon skipper	C	Grassy openings in subalpine coniferous forests.	OR (Jackson-15)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Pseudocopaeodes eunus obscurus	Carson wandering skipper	E	Alkaline desert seeps dominated by saltgrass with a freshwater source, such as hot springs, sufficient to support summer nectar flowers.	NV (Washoe-242)	NA
Pyrgus ruralis lagunae	Laguna Mountains skipper	E	Known only from the Mount Palomar and Laguna Mountain regions in San Diego County, CA.	CA (San Diego-15)	Corridors do not cross critical habitat
Rhaphiomidas terminatus	Delhi sands flower-loving fly	E	Fine, sandy soils, often with wholly or partly consolidated dunes.	CA (Riverside-258, San Bernardino-1,288)	NA
Speyeria zerene behrensii	Behren's silverspot butterfly	E	Habitat not described. Currently known from only one site in southern Mendocino Co., CA.	CA (Humboldt-2)	NA
Streptocephalus woottoni	Riverside fairy shrimp	E	Vernal pools, basins, swales, and patches of grassland and agriculture interspersed in coastal sage scrub vegetation.	CA (Orange-5, Riverside-258, San Diego-15)	Corridors do not cross critical habitat
Thermosphaeroma thermophilus	Socorro isopod	E	Warm springs 31–32°C and < 0.3 m deep. Known from only one site where two small pools are fed by the Sedillo Spring in Socorro Co., NM.	NM (Socorro-56)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Fishes					
Catostomus discobolus yarrowi	Zuni bluehead sucker	C	Shady, cobbled and bedrock streams with frequent runs and pools that are tributaries to the Little Colorado River.	NM (McKinley-7)	NA
Catostomus microps	Modoc sucker	E	Pools of small, often intermittent, headwater streams of moderate gradient flowing through meadows and dry forests at 1,286–1,567 m.	CA (Lassen-87, Modoc-118)	Corridors do not cross critical habitat, but corridor segment is less than 8 km from critical habitat in Modoc Co., CA
Catostomus santaanae	Santa Ana sucker	T	Pools and runs of small to medium-sized, shallow streams with cool unpolluted water.	CA (Los Angeles-15, Orange-5, Riverside-258, San Bernardino-1,288)	Corridors do not cross critical habitat, but corridor segment is less than 1.5 km from critical habitat in Los Angeles Co., CA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Catostomus warnerensis	Warner sucker	T	Lakes, ephemeral bodies of water, streams, beaver ponds, and sloughs. Endemic to the Warner Lake Basin in southcentral OR and northwestern NV.	NV (Washoe-242); OR (Lake-188)	Corridors do not cross critical habitat, but corridor segment is less than 8 km from critical habitat in Lake Co., OR
Chasmistes brevirostris	Shortnose sucker	E	Open waters of large shallow lakes and river channels usually near vegetation around lake margin.	CA (Modoc-118, Siskiyou-27); OR (Klamath-69, Lake-188)	NA
Chasmistes cujus	Cui-ui	E	Shoreline areas of the lakes with extensive shoals and shallow bars. Spawns in Truckee River over gravel beds in relatively shallow water where flow is rapid. Endemic to Pyramid Lake and the Truckee River in NV.	NV (Washoe-242)	NA
Chasmistes liorus	June sucker	E	Inhabits Utah Lake and tributaries in UT. Utah Lake is shallow, turbid, and slightly saline. Spawning occurs in large tributary streams (lower portion of Provo River and, at least formerly, lower Spanish Fork River), in shallower riffles over coarse gravel and cobble.	UT (Utah-40, Weber-1)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Crenichthys baileyi baileyi	White River springfish	E	Restricted to Ash Springs in the White River drainage system of southeastern NV. Ash Springs is a warm-water spring.	NV (Lincoln-261)	Corridors do not cross critical habitat
Crenichthys baileyi grandis	Hiko White River springfish	E	Endemic to the Crystal and Hiko springs of the White River drainage system, southeastern NV. Prefers spring heads and quiet waters along outflows.	NV (Lincoln-261, Mineral-504)	Corridors do not cross critical habitat
Crenichthys nevadae	Railroad Valley springfish	T	Spring pools, outflow streams, and adjacent marshes. Native to six thermal springs in western NV.	NV (Mineral-504, Nye-277)	Corridors do not cross critical habitat
Cyprinella formosa	Beautiful shiner	T	Riffles and pools of small streams, rapids of large streams, and spring-fed ditches. Streams typically are intermittent and subject to seasonal drying and sudden flooding but survives dry periods in permanent pools.	AZ (Cochise-12)	Corridors do not cross critical habitat
Cyprinodon diabolis	Devils Hole pupfish	E	Restricted to a single limestone pool in Death Valley National Park, NV. Rarely leaves algae-covered ledge at western end of pool.	NV (Clark-438, Nye-277)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Cyprinodon macularius	Desert pupfish	E	Desert springs and outflow marshes, river-edge marshes, backwaters, saline pools, and streams. Prefers areas with sand/silt substrates and aquatic plant life, limited surface flow, water less than 1 m in depth.	CA (Imperial-369)	Corridors do not cross critical habitat
Cyprinodon nevadensis mionectes	Ash Meadows amargosa pupfish	E	Pools and outflows of warm springs at 655–700 m. Endemic to the Ash Meadows region of western NV.	NV (Nye-277)	Corridors do not cross critical habitat
Cyprinodon nevadensis pectoralis	Warm Springs pupfish	E	Low-discharge, warm (30–31°C) constant springs. Occurs in the vicinity of Lovell's Spring in the Ash Meadows region of western NV.	NV (Nye-277)	NA
Cyprinodon radiosus	Owens pupfish	E	Deep pools and shallows of artificially created refugia with good quality water, aquatic vegetation, and a silt- or sand-covered bottom. Once abundant in shallow, clear, sloughs, spring pools, irrigation ditches, marshes with emergent vegetation, and flooded pastures along the Owens River in CA.	CA (Inyo-166, Mono-31)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Deltistes luxatus	Lost River sucker	E	Deep-water lakes and impoundments, and swift water and deep pools of small to medium rivers. Moves from lakes into tributary streams to spawn in riffles or runs with gravel or cobble substrate, moderate flows. Spawning also occurs along shore of Upper Klamath Lake.	CA (Modoc-118, Siskiyou-27); OR (Klamath-69)	NA
Empetrichthys latos	Pahrump poolfish	E	Shallow alkaline mineral springs. Extirpated from native range in three springs in Pahrump Valley, NV; stable introduced populations now exist in a few warm springs elsewhere in NV.	NV (Clark-438, Nye-277, White Pine-237)	NA
Eremichthys acros	Desert dace	T	Restricted to warm springs and their outflow creeks near the Soldier Meadows area, Humboldt Co., NV.	NV (Humboldt-161)	Corridors do not cross critical habitat
Eucyclogobius newberryi	Tidewater goby	E	Coastal lagoons, stream channels and their associated wetlands, flood plains, and estuaries of CA.	CA (Humboldt-2, Los Angeles-15)	Corridors do not cross critical habitat
Gambusia nobilis	Pecos gambusia	E	Shallow margins of clear vegetated spring waters high in calcium carbonate, though also found in sinkhole habitats.	NM (Chaves-39, Eddy-10)	NA

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Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Gasterosteus aculeatus williamsoni	Unarmored threespine stickleback	E	Clear, slow-flowing streams with sand or mud substrate, water temperature less than 24°C, and abundant aquatic vegetation.	CA (Los Angeles-15, San Bernardino-1,288, San Diego-15)	NA
Gila bicolor mohavensis	Mohave tui chub	E	Deep pools or shallow outflow streams of mineralized, alkaline waters. Formerly in mainstream Mohave River; now in lakes and mineral spring pools.	CA (Kern-240, Los Angeles-15, San Bernardino-1,288)	NA
Gila bicolor snyderi	Owens tui chub	E	Shallow water associated with submerged objects or beds of aquatic vegetation, or in the quiet waters of sluggish rivers with clear, clean water, adequate cover in the form of rocks, undercut banks, or aquatic vegetation, and adequate insect food. Known from only three locations in southeastern CA.	CA (Inyo-166, Mono-31)	Corridors do not cross critical habitat
Gila bicolor ssp.	Hutton tui chub	T	Restricted to springs in the vicinity of Hutton Spring, south-central OR.	OR (Lake-188)	NA

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Gila boraxobius	Borax Lake chub	E	Known only from Borax Lake and associated outflows in south-central OR.	OR (Harney-162)	Corridors do not cross critical habitat, but corridor segment is less than 1.6 km from critical habitat in Harney Co., OR
Gila cypha	Humpback chub	E	Colorado River and major tributaries such as the Green River, lower Yampa River, and White River. Adults use various habitats, including deep turbulent currents, shaded canyon pools, areas under shaded ledges in moderate current, riffles, and eddies. The young utilize shallow backwater areas over nonrocky substrate.	AZ (Coconino-198, Mohave-500); CO (Mesa-297, Moffat-159); UT (Carbon-26, Daggett-29, Emery-55, Garfield-53, Grand-156, Kane-63, San Juan-249, Uintah-97); WY (Sweetwater-358)	Corridors do not cross critical habitat, but corridor segment is less than 8 km from critical habitat in Uintah Co., UT
Gila ditaenia	Sonora chub	T	Intermittent streams; restricted to permanent rocky and sandy pools during dry periods. Restricted to Sycamore Canyon in Santa Cruz County, AZ.	AZ (Santa Cruz-25)	Corridors do not cross critical habitat

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Gila elegans	Bonytail chub	E	Recently found only in the Yampa River, the Green River, the Colorado River, Lake Mohave, and Lake Havasu (AZ). Usually in or near deep swift water, in flowing pools and backwaters, over mud or rocks.	AZ (La Paz-224, Mohave-500); CA (San Bernardino-1,288); CO (Mesa-297, Moffat-159); NV (Clark-438); UT (Carbon-26, Garfield-53, Grand-156, San Juan-249, Uintah-97)	Corridor crosses approximately 0.7 km^2 of critical habitat in Clark Co., NV and Mohave Co., AZ. Corridor segment is less than 6.5 km from critical habitat in Uintah Co., UT
Gila intermedia	Gila chub	E	Pools in smaller streams, springs, and wetlands. Historically occurred in the upper Gila River basin in southern AZ and southwestern NM.	AZ (Cochise-12, Coconino-198, Gila-65, Santa Cruz-25, Yavapai-148); NM (Grant-5)	Corridors do not cross critical habitat
Gila nigra	Headwater chub	C	Middle to headwater reaches of middle-sized streams in pools and runs near cover such as rocks, roots, undercuts, or deep water. Confined to the Gila River basin in AZ and NM.	AZ (Gila-65, Yavapai-148)	NA
Gila nigrescens	Chihuahua chub	T	Clear, flowing streams with riffles, deep pools, sand and gravel substrates with algae-covered rocks, large boulders, and crevices in canyon walls. Restricted to tributaries of the Guzmán Basin in NM.	NM (Grant-5)	NA

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Gila purpurea	Yaqui chub	E	Deep pools in creeks, springheads, scoured areas of wetlands, and other stream-associated quiet waters of the Rio Yaqui drainage.	AZ (Cochise-12)	Corridors do not cross critical habitat
Gila robusta jordani	Pahranagat roundtail chub	E	Outflow streams near Ash Springs, NV, with sand, silt and mud substrate.	NV (Lincoln-261)	NA
Gila seminuda	Virgin River chub	E	Rocky runs, rapids, and pools in deeper areas where waters are swift but not turbulent, and generally it is associated with boulders, root snags, or other cover. Endemic to the Virgin River in southwest UT, southern NV, and northwestern AZ.	AZ (Mohave-500); NV (Clark-438); UT (Washington-118)	Corridor crosses approximately 1.9 km^2 of critical habitat in Washington County, UT
Hybognathus amarus	Rio Grande silvery minnow	E	Pools, backwaters, or eddies with silt or sand substrates on the Rio Grande from Cochiti Dam to the headwaters of the Elephant Butte Reservoir in NM.	NM (Sandoval-36, Socorro-56)	Corridors do not cross critical habitat, but corridor segment is less than 1.6 km from critical habitat in Socorro Co., NM

TABLE R (Cont.)

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Ictalurus pricei	Yaqui catfish	T	Small to medium rivers in medium to slow currents over gravel/sand substrate. Historically occurred in the Rio Yaqui system in southern AZ and NM. Introduced in the San Bernardino National Wildlife Refuge in Cochise Co., AZ.	AZ (Cochise-12)	Corridors do not cross critical habitat
Lepidomeda albivallis	White River spinedace	E	Restricted to a small area of spring habitat in the headwaters of the White River in Nevada.	NV (Nye-277, White Pine-237)	Corridors do not cross critical habitat
Lepidomeda mollispinis pratensis	Big Spring spinedace	T	Meadow Valley Wash near Big Spring in Lincoln County, NV, where channel substrate is composed of firm to soft clay with some gravel.	NV (Lincoln-261)	Corridors do not cross critical habitat
Lepidomeda vittata	Little Colorado spinedace	T	Rocky and sandy runs and pools of creeks and small rivers in slow to moderate currents.	AZ (Coconino-198, Navajo-4)	Corridors do not cross critical habitat
Meda fulgida	Spikedace	T	Permanent, flowing, unpolluted, low gradient streams with pool, riffle, run, and backwater areas, and sand, gravel, and cobble substrates. Upper Gila River basin in AZ and NM.	AZ (Gila-65, Pinal-25, Yavapai-148); NM (Grant-5, Hidalgo-20)	Corridor crosses approximately 2 km^2 of critical habitat in Yavapai Co., AZ
Moapa coriacea	Moapa dace	E	Restricted to warm spring areas at the headwaters of the Moapa River.	NV (Clark-438, Nye-277, White Pine-237)	NA

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Notropis girardi	Arkansas River shiner	T	Turbid waters of broad, shallow, unshaded channels, over mostly silt and shifting sand bottom. Historically abundant throughout portions of the Arkansas River basin in NM. Introduced and established in the Pecos River, NM.	NM (Chaves-39, De Baca-6, Eddy-10)	NA
Notropis simus pecosensis	Pecos bluntnose shiner	T	Main river channels, often below obstructions, over substrate of sand, gravel, and silt.	NM (Chaves-39, De Baca-6, Eddy-10, Guadalupe-9)	Corridors do not cross critical habitat, but corridor segment is less than 5 km from critical habitat in Chaves Co., NM
Oncorhynchus apache	Apache trout	T	Restricted to clear, cool, high-elevation mountain streams that flow through marshes and coniferous forests, upstream from natural barriers. Historically occurred in Arizona in the upper Salt River division of the Gila River basin; Introduced in many streams and lakes in Arizona.	AZ (Coconino-198)	NA

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Oncorhynchus clarkii henshawi	Lahontan cutthroat trout	T	Historically abundant in lakes and streams throughout the physiographic Lahontan basin of northern NV, eastern CA, OR, and UT. Requires cool, well-oxygenated water. Adapted to highly mineralized waters. In streams, uses rocky areas, riffles, deep pools, and areas under logs and overhanging banks.	CA (Mono-31, Nevada-22, Placer-7); NV (Churchill-71, Elko-799, Eureka-74, Humboldt-161, Lander-4, Mineral-504, Nye-277, Washoe-242); OR (Harney-162, Malheur-239)	NA
Oncorhynchus clarkii seleniris	Paiute cutthroat trout	T	Streams with moderate current in meadow areas; also occupies lakes. Historic range included the Silver King Creek system, Toiyabe National Forest, CA. Introduced elsewhere.	CA (Inyo-166, Mono-31)	NA
Oncorhynchus clarkii stomias	Greenback cutthroat trout	T	Clear, swift-flowing mountain streams with cover such as overhanging banks and vegetation. Small range in the South Platte and Arkansas Rivers in CO and WY.	CO (Chaffee-23, Clear Creek-3, Grand-42)	NA
Oncorhynchus gilae	Gila trout	T	Clear, cold mountain streams that typically are narrow, shallow, and intermittent. Restricted to the Gila River drainage in NM and the Agua Fria and Verde drainages in AZ.	NM (Grant-5, Sierra-66)	NA

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Oncorhynchus keta	Chum salmon[d]	T	Spends most of its life in the ocean. Spawns in rivers and streams but usually not far from salt water. No freshwater residents or land-locked forms have been reported.	OR (Columbia-7, Hood River-4, Multnomah-0.5, Washington-2)	Corridors do not cross critical habitat
Oncorhynchus kisutch	Coho salmon[d]	PT, T, E[e]	Naturally occurring in the Pacific Ocean and tributary drainages. Spawns in just about any accessible coastal stream, generally in forested areas in loose coarse gravel at heads of riffles.	CA (Humboldt-2, Siskiyou-27, Trinity-36); OR (Clackamas-66, Columbia-7, Douglas-19, Hood River-4, Jackson-15, Lane-9, Linn-3, Multnomah-0.5, Wasco-22, Washington-2)	Corridor crosses approximately 16.5 km^2 of critical habitat in Clackamas, Columbia, Douglas, and Jackson Co., OR
Oncorhynchus mykiss	Steelhead[d]	T, E[e]	Native to streams along the Pacific coast. Widely introduced and established elsewhere.	CA (Kern-240, Los Angeles-15, Nevada-22, Orange-5, Placer-7, Riverside-258, San Diego-15, Shasta-21); ID (Blaine-26); OR (Clackamas-66, Columbia-7, Crook-33, Harney-162, Hood River-4, Jackson-15, Jefferson, Linn-3, Multnomah-0.5, Wasco-22, Washington-2); WA (Chelan-9, King-14, Kittitas-1, Snohomish-1)	Corridor crosses approximately 12 km^2 of critical habitat in Shasta Co., CA, Clackamas and Hood River Co., OR, and Chelan Co., WA

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Oncorhynchus nerka	Sockeye salmon[d]	E	Ranges throughout the North Pacific Ocean. Natural lake populations occur in WA, ID, and OR. Anadromous populations occur from the Sacramento River, CA north to Point Hope, AK. Spawns in coastal rivers and streams (usually natal sites).	ID (Blaine-26); WA (Chelan-9, King 14, Kittitas-1, Snohomish-1)	NA
Oncorhynchus tshawytscha	Chinook salmon[d]	T, E[e]	Pacific Ocean drainages. Adults are mostly oceanic during the nonbreedings season. Most spawning occurs in gravel riffles in main coastal streams.	CA (Humboldt-2, Nevada-22, Shasta-21, Trinity-36); OR (Clackamas-66, Columbia-7, Hood River-4, Lane-9, Linn-3, Multnomah-0.5, Wasco-22, Washington-2); WA (Chelan-9, King 14, Kittitas-1, Snohomish-1)	Corridor crosses approximately 38.9 km^2 of critical habitat in Clackamas, Hood River, and Lane Co., OR, and Chelan, King, and Snohomish Co., WA
Oregonichthys crameri	Oregon chub	E	Slow-moving pools, sloughs, backwaters, ponds, and reservoirs of the Willamette River system of Columbia River drainage in western Oregon often associated with aquatic vegetation (30–70% cover) and depositional substrates	OR (Linn-3)	NA

TABLE R (Cont.)

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Plagopterus argentissimus	Woundfin	E	Seasonally swift, warm, highly turbid, small to medium rivers, with constantly shifting substrates. Adults and juveniles inhabit runs and quiet waters adjacent to riffles with sand and sand/gravel substrates. Currently, only known from the Virgin and Moapa River systems in AZ, NV, and UT.	AZ (Mohave-500); NV (Clark-438); UT (Washington-118)	Corridor crosses approximately 1.9 km^2 of critical habitat in Washington Co., UT
Poeciliopsis occidentalis	Gila topminnow	E	Lowland streams of desert and grasslands, and margins of large, lowland rivers with shallow, warm, fairly quiet waters but also in moderate currents and depths up to 1 m. Native to the Gila River system and Rio Yaqui drainage. Currently only known to exist in southern AZ.	AZ (Gila-65, La Paz-224, Maricopa-273, Pinal-25, Santa Cruz-25, Yavapai-148); NM (Hidalgo-20)	NA
Ptychocheilus lucius	Colorado pikeminnow	E	Young prefer small, quiet backwaters. Adults use various habitats, including deep turbid strongly flowing water, eddies, runs, flooded bottoms, or backwaters. Restricted to large rivers of the Colorado River basin. Experimental populations have been established in the Salt and Verde Rivers in AZ.	CO (Delta-22, Garfield-49, Mesa-297, Moffat-159, Rio Blanco-127); UT (Emery-55, Grand-156, Uintah 97)	Corridor crosses approximately 32 km^2 of critical habitat in Delta, Garfield, Mesa, Moffat, and Rio Blanco Co., CO; Emery, Grand, and Uintah Co., UT

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Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Rhinichthys osculus lethoporus	Independence Valley speckled dace	E	Known only from Independence Valley Warm Springs system, Elko County, NV.	NV (Elko-799)	NA
Rhinichthys osculus nevadensis	Ash Meadows speckled dace	E	Known from a few springs at the Ash Meadows, Nye County, NV.	NV (Nye-277)	Corridors do not cross critical habitat
Rhinichthys osculus oligoporus	Clover Valley speckled dace	E	Inhabits the outflow habitats of a few springs in Clover Valley, Elko County, NV.	NV (Elko-799)	NA
Rhinichthys osculus ssp.	Foskett speckled dace	T	Restricted to the Foskett Spring system in the Coleman Basin in Lake County, OR.	OR (Lake-188)	NA
Salvelinus confluentus	Bull trout	T	Coastal and montane areas of the Pacific Northwest in cold rivers and large tributary streams, often in moderate to fast currents; also large coldwater lakes and reservoirs.	CA (Shasta-21, Siskiyou-27); ID (Kootenai-6, Shoshone-8); MT (Granite-14, Mineral-56, Missoula-12, Powell-6); NV (Elko-799); OR (Baker-16, Clackamas-66, Crook-33, Deschutes-77, Douglas-19, Harney-162, Hood River-4, Klamath-69, Lake-188, Lane-9, Linn-3, Malheur-239, Wasco-22); WA (King-14, Kittitas-1, Snohomish-1)	Corridor crosses approximately 8 km^2 of critical habitat in Mineral and Missoula Co., MT; and Hood River Co., OR

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Tiaroga cobitis	Loach minnow	T	Restricted to about 645 km of stream in the Gila River basin. Permanent, flowing, unpolluted creeks and small to medium rivers of low to moderate gradient, low amounts of fine sediment and substrate embeddedness.	AZ (Gila-65, Yavapai-148); NM (Grant-5, Hidalgo-20)	Corridors do not cross critical habitat
Xyrauchen texanus	Razorback sucker	E	Slow areas, backwaters, and eddies of medium to large rivers and their impoundments. Formerly occurred throughout much of the Colorado River basin. The largest extant population occurs in Lake Mohave.	AZ (Coconino-198, Gila-65, La Paz-224, Maricopa-273, Mohave-500, Yavapai-148); CA (Imperial-369, Riverside-258, San Bernardino-1,288); CO (Delta-22, Garfield-49, Mesa-297, Moffat-159, Rio Blanco-127); NM (Hidalgo-20, San Juan-90); UT (Carbon-26, Emery-55, Grand-156, San Juan-249, Uintah-97, Wayne); WY (Sweetwater-358)	Corridor crosses approximately 40 km^2 of critical habitat in La Paz and Mohave Co., AZ; Riverside Co., CA; Delta, Garfield, and Mesa Co., CO; Clark Co., NV; and Emery, Grand, and Uintah Co., UT
Amphibians					
Ambystoma tigrinum stebbinsi	Sonora tiger salamander	E	Wetlands and livestock ponds. Adult, metamorphosed salamanders inhabit adjacent grassland and oak woodland terrestrial habitat when not in ponds. Restricted to the Santa Cruz and San Pedro River drainages in AZ.	AZ (Cochise-12, Santa Cruz-25)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Batrachoseps aridus	Desert slender salamander	E	Small permanent desert springs and creeks with riparian vegetation under stones and wood. Terrestrial breeder; eggs are laid in small chambers underground, in crevice, or under rock. Restricted to Hidden Palm Canyon and Guadalupe Canyon in CA.	CA (Riverside-258)	NA
Bufo baxteri	Wyoming toad	E	Historically associated with floodplain ponds along the Big and Little Laramie Rivers. Currently occurs in the vicinity of lakes and adjacent meadows. Uses rodent burrows for shelter. Eggs and larvae develop in shallow water.	WY (Albany-8)	NA
Bufo californicus	Arroyo toad	E	Washes, streams, and arroyos, and adjacent uplands, and along rivers that have shallow gravelly pools adjacent to sandy terraces.	CA (Los Angeles-15, Orange-5, Riverside-258, San Bernardino-1,288, San Diego-15)	Corridor crosses approximately 2.5 km^2 of critical habitat in San Bernardino and San Diego Co., CA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Bufo canorus	Yosemite toad	C	Wet mountain meadows and borders of forests. Breeds in shallow edges of snow melt pools and ponds or along edges of lakes and slow-moving streams. Endemic to the Sierra Nevada in the vicinity of Grass Lake, CA.	CA (Inyo-166, Mono-31)	NA
Rana aurora draytonii	California red-legged frog	T	In or near quiet permanent water of streams, marshes, or ponds; also damp woods and meadows some distance from water.	CA (Los Angeles-15, Nevada-22)	Corridors do not cross critical habitat
Rana chiricahuensis	Chiricahua leopard frog	T	Permanent water ponds of moderate depth as well as montane streams in pine and pine-oak forests.	AZ (Cochise-12, Coconino-198, Gila-65, Navajo-4, Santa Cruz-25, Yavapai-148); NM (Grant-5, Hidalgo-20, Sierra-66, Socorro-56)	NA
Rana luteiventris	Columbia spotted frog	C	Rarely found far from permanent quiet water, usually at the grassy/sedgy margins of streams, lakes, ponds, springs, and marshes. May disperse into forest, grassland, and brushland during wet weather, and may traverse uplands to reach wintering sites.	NV (Elko-799, Eureka-74, Nye-277, White Pine-237)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Rana muscosa	Mountain yellow-legged frog	E, C[e]	Sunny riverbanks, meadow streams, isolated pools, and lake borders in the Sierra Nevada, CA.	CA (Riverside-258, San Bernardino-1,288)	Corridors do not cross critical habitat
Rana onca	Relict leopard frog	C	In or near springs and outlet creeks. Remaining populations near Lake Mead and in Black Canyon along the Colorado River.	AZ (Mohave-500); NV (Clark-438); UT (Washington-118)	NA
Rana pretiosa	Oregon spotted frog	C	Rarely found far from permanent quiet water; usually occurs at the grassy margins of streams, lakes, ponds, springs, and marshes. Breeds usually in stable, shallow water in pools, ponds, or other quiet waters.	CA (Modoc-118, Shasta-21, Siskiyou-27); OR (Clackamas-66, Deschutes-77, Jackson-15, Klamath-69, Linn-3, Multnomah-0.5, Wasco-22)	NA
Reptiles					
Crotalus willardi obscurus	New Mexican ridge-nosed rattlesnake	T	Pine-oak woodland, pine-fir forest, foothill canyons in pinyon-juniper woodland, and canyon bottoms with canopies of alder, box elder, maple. Occurs in the Animas Mountains (NM) and Peloncillo Mountains (AZ and NM).	AZ (Cochise-12); NM (Hidalgo-20)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Gambelia silus	Blunt-nosed leopard lizard	E	Semiarid grasslands, alkali flats, low foothills, canyon floors, large washes, and arroyos, usually on sandy, gravelly, or loamy substrate, sometimes on hardpan. Currently known from the San Joaquin Valley and in the foothills of the Coast Range in CA.	CA (Kern-240)	NA
Gopherus agassizii	Desert tortoise	T	Creosote bush vegetation characteristic of the Upper Sonoran life zones of the Mojave, Colorado, and Sonoran deserts.	AZ (Mohave-500); CA (Imperial-369, Kern-240, Los Angeles-15, Riverside-258, San Bernardino-1,288); NV (Clark-438, Esmeralda-131, Lincoln-261); UT (Washington-118)	Corridor crosses approximately 951 km^2 of critical habitat in Kern, Riverside, and San Bernardino Co., CA; and Clark Co., NV
Sceloporus arenicolus	Sand dune lizard	C	Occurs mainly on the Mescalero Sands in southeastern NM in scattered stands of *Quercus havardii* and *Artemisia filifolia*.	NM (Chaves-39, Eddy-10, Lea-50)	NA
Uma inornata	Coachella Valley fringe-toed lizard	T	Sparsely vegetated windblown sand dunes and sandy flats with fine, loose sand for burrowing. Restricted to the Coachella Valley, Riverside Co., CA.	CA (Riverside-258)	Corridor crosses approximately 0.5 km^2 of critical habitat in Riverside Co., CA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Birds					
Brachyramphus marmoratus	Marbled murrelet	T	Coastal areas, mainly in salt water within 2 km of shore, including bays and sounds occasionally also on rivers and lakes usually within 20 km of ocean. Nests often are in mature/old growth coniferous forest near the coast on large mossy horizontal branch providing a platform high in mature conifer (e.g., Douglas-fir, mountain hemlock).	CA (Humboldt-2, Siskiyou-27, Trinity-36); OR (Columbia-7, Douglas-19, Lane-9, Washington-2); WA (King-14, Kittitas-1, Snohomish-1)	Corridor crosses approximately 2.5 km^2 of critical habitat in King and Snohomish Co., WA
Centrocercus urophasianus	Greater sage-grouse	C	Foothills, plains, and mountain slopes where sagebrush is present.	OR (Baker-16, Crook-33, Deschutes-77, Harney-162, Klamath-69, Lake-188, Malheur-239); WA (Kittitas-1)	NA
Charadrius alexandrinus nivosus	Western snowy plover	T	Beaches, dry mud or salt flats, sandy shores of rivers, lakes, and ponds. Nests on the ground on broad open beaches or salt or dry mud flats, where vegetation is sparse or absent.	CA (Kern-240, Humboldt-2, Los Angeles-15, Modoc-118, Orange-5, Riverside-258, San Diego-15, Siskiyou-27); NM (Chaves-39, Eddy-10, Socorro-56); NV (Churchill-71, Elko-799, Eureka-74, Humboldt-161, Lyon-283, Mineral-504, Nye-277, Pershing-178, Washoe-242, White Pine-237); OR (Douglas-19, Harney-162, Lane-9); WA (King-14, Snohomish-1)	Corridors do not cross critical habitat

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Coccyzus americanus	Western yellow-billed cuckoo	C	Cottonwood and willow riparian woodlands.	AZ (Cochise-12, Gila-65, La Paz-224, Maricopa-273, Mohave-500, Pinal-25, Santa Cruz-25, Yavapai-148, Yuma-90); CA (Inyo-166, Kern-240, San Bernardino-1,288); CO (Montezuma-42); ID (Ada-7, Bingham-0.5, Blaine-26, Jefferson-20, Owyhee-122); MT (Missoula-12); NV (Churchill-71, Clark-438, Elko-799, Eureka-74, Humboldt-161, Lincoln-261, Lyon-283, Nye-277); OR (Baker-16, Clackamas-66, Deschutes-77, Grant-5, Harney-162, Lake-188, Linn-3, Malheur-239, Multnomah-0.5); UT (Emery-55, Garfield-53, Grand-156, Iron-27, Juab-51, Kane-63, San Juan-249, Tooele-123, Uintah-97, Utah-40, Wasatch-15, Washington-118, Weber-1)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Empidonax traillii extimus	Southwestern willow flycatcher	E	Thickets, scrubby and brushy areas, open second growth, swamps, and open woodland. Restricted to riparian habitat in AZ.	AZ (Cochise-12, Coconino-198, Gila-65, La Paz-224, Maricopa-273, Mohave-500, Pinal-25, Santa Cruz-25, Yavapai-148, Yuma-90); CA (Imperial-369, Inyo-166, Kern-240, Los Angeles-15, Riverside-258, San Bernardino-1,288, San Diego-15); CO (Dolores-6, Gunnison-97); NM (Hidalgo-20, Grant-5, McKinley-7, San Juan-90, Socorro-56); UT (Beaver-106, Carbon-26, Emery-55, Garfield-53, Grand-156, Iron-27, Kane-63, San Juan-249, Sevier-34, Uintah-97, Washington-118)	Corridor crosses approximately 0.5 km^2 of critical habitat in Mohave Co., AZ; and Washington Co., UT
Eremophila alpestris strigata	Streaked horned lark	C	Large expanses of sparse vegetation, including fields, prairies, dunes, upper beaches, airports, and similar areas.	OR (Clackamas-66, Linn-3)	NA
Falco femoralis septentrionalis	Northern Aplomado falcon	E	Open rangeland and savanna, semiarid grasslands.	NM (Dona Ana-82, Grant-5, Hidalgo-20, Socorro-56)	NA
Grus americana	Whooping crane	E	Rare migrant in valleys, where it occurs on mudflats around reservoirs and in agricultural areas.	CO (Clear Creek-3)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Gymnogyps californianus	California condor	E	Mountainous areas at low and moderate elevations, especially rocky and brushy areas with cliffs available for nest sites; forages in grasslands, oak savanna, mountain plateaus, ridges, and canyons.	AZ (Coconino-198, Mohave-500); CA (Kern-240, Los Angeles-15); UT (Kane-63, Washington-118)	Corridors do not cross critical habitat
Haliaeetus leucocephalus	Sonoran desert bald eagle	T	Near reservoirs and large rivers. In winter, they may also occur locally in semideserts and grasslands, especially near prairie dog towns.	AZ (Yavapai-148, Gila-65, Maricopa-273, Mohave-500, Pinal-25)	NA
Pelecanus occidentalis	Brown pelican	E	Along the Pacific coast in southern CA.	CA (San Diego-15); OR (Lane-9)	NA
Pipilo crissalis eremophilus	Inyo California towhee	T	Desert riparian habitat; dense thickets, almost invariably of willows, around desert springs and streams in rocky canyons.	CA (Inyo-166)	Corridors do not cross critical habitat
Polioptila californica californica	Coastal California gnatcatcher	T	Dry coastal slopes, washes, and mesas in areas of low plant growth (about 1 m high).	CA (Los Angeles-15, Orange-5, Riverside-258, San Bernardino-1,288, San Diego-15)	Corridor crosses approximately 0.3 km^2 of critical habitat in Riverside Co., CA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Rallus longirostris levipes	Light-footed clapper rail	E	Cordgrass-pickleweed saltmarsh. Nests under clumps of pickleweed, on ground or in cordgrass slightly above ground level.	CA (Orange-5, San Diego-15)	NA
Rallus longirostris yumanensis	Yuma clapper rail	E	Freshwater marshes containing dense stands of cattails. Nests on dry hummocks or in small shrubs among dense cattails or bulrushes along the edges of shallow ponds in freshwater marshes with stable water levels.	AZ (Gila-65, La Paz-224, Maricopa-273, Mohave-500, Pinal-25, Yavapai-148, Yuma-90); CA (Imperial-369, Riverside-258, San Bernardino-1,288); NV (Clark-438, Nye-277)	NA
Sterna antillarum	Interior least tern	E	Beaches and sandbars of large rivers and lakes.	CO (Delta-22); NM (Chaves-39)	NA
Sterna antillarum browni	California least tern	E	Seacoasts, beaches, bays, estuaries, lagoons, lakes, and rivers.	CA (Los Angeles-15, Orange-5, San Diego-15)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Strix occidentalis caurina	Northern spotted owl	T	Forests with a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large cavities and numerous large snags.	CA (Humboldt-2, Shasta-21, Siskiyou-27, Trinity-36); NM (Luna-13); OR (Clackamas-66, Deschutes-77, Douglas-19, Hood River-4, Jackson-15, Klamath-69, Lane-9, Multnomah-0.5, Wasco-22); WA (Chelan-9, King-14, Kittitas-1, Snohomish-1)	Corridor crosses approximately 29 km^2 of critical habitat in Humboldt, Shasta, and Trinity Co., CA; Douglas, Hood River, Lane, and Wasco Co., OR; and Chelan and King Co., WA
Strix occidentalis lucida	Mexican spotted owl	T	Most common where unlogged closed-canopy forests occur in steep canyons; uneven-aged stands with a high basal area and many snags and downed logs are most favorable.	AZ (Cochise-12, Coconino-198, Gila-65, Maricopa-273, Mohave-500, Navajo-4, Pinal-25, Santa Cruz-25, Yavapai-148); CO (Fremont-33, San Miguel-19); NM (Grant-5, Lincoln-1, McKinley-7, Sandoval-36, Sierra-66, Socorro-56); UT (Carbon-26, Emery-55, Garfield-53, Grand-156, Iron-27, Kane-63, San Juan-249, Washington-118, Uintah-97)	Corridor crosses approximately 40 km^2 of critical habitat in Coconino, Gila, Maricopa, and Santa Cruz Co., AZ
Tympanuchus pallidicinctus	Lesser prairie-chicken	C	Mixed grass-dwarf shrub communities on sandy soils.	NM (Chaves-39, De Baca-6, Eddy-10, Lea-50)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Vireo bellii pusillus	Least Bell's vireo	E	Dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak, in arid regions but often near water.	CA (Imperial-369, Los Angeles-15, Orange-5, Riverside-258, San Bernardino-1,288, San Diego-15)	Corridors do not cross critical habitat
Mammals					
Antilocapra americana sonoriensis	Sonoran pronghorn	E	Broad alluvial valleys with small-leaf trees and numerous species of cacti separated by mountains and mesas.	AZ (Maricopa-273, Yuma-90)	NA
Brachylagus idahoensis	Pygmy rabbit	E	Dense stands of big sagebrush growing in deep loose soils.	OR (Crook-33, Harney-162, Jefferson, Klamath-69, Lake-188, Malheur-239, Union)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Canis lupus	Gray wolf	E	Occurs widely throughout North America in a variety of habitats including semi-developed lands if ungulate prey is abundant.	AZ (Cochise-12); CO (Clear Creek-3, Delta-22, Dolores-6, Garfield-49, La Plata-1.3, Mesa-297, Moffat-159, Montezuma-42, Montrose-122, Rio Blanco-127, Routt-11); ID (Ada-7, Bingham-0.5, Blaine-26, Bonneville-7, Cassia-14, Clark-14, Elmore-79, Gooding-7, Jefferson-20, Jerome-55, Kootenai-6, Lincoln-1, Minidoka-9, Oneida-4, Owyhee-122, Power-11, Shoshone-8, Twin Falls-110); MT (Beaverhead-38, Carbon-11, Granite-14, Jefferson-55, Madison-2, Mineral-56, Missoula-12, Silver Bow-4); OR (Baker-16, Clackamas-66, Deschutes-77, Douglas-19, Harney-162, Jackson-15, Lane-9, Linn-3, Malheur-239); WY (Albany-8, Big Horn-87, Carbon-129, Converse-3, Fremont-20, Hot Springs-11, Natrona-59, Sweetwater-358, Uinta-37, Washakie-39)	NA
Cynomys parvidens	Utah prairie dog	T	Grasslands in level mountain valleys in areas with deep, well-drained soil and vegetation that prairie dogs can see over or through.	UT (Beaver-106, Garfield-53, Iron-27, Kane-63, Millard-194, Piute-43, Sanpete-17, Sevier-34)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Dipodomys ingens	Giant kangaroo rat	E	Gently sloping piedmont plains supporting saltbush and perennial grasses. Confined to a narrow strip along the southwestern border of the San Joaquin Valley, CA.	CA (Kern-240)	NA
Dipodomys merriami parvus	San Bernardino Merriam's kangaroo rat	E	Sage scrub on alluvial fans, floodplains, along washes, adjacent upland areas, and in areas with historic braided stream channels with sand, loam, sandy loam, or gravelly soils.	CA (Riverside-258, San Bernardino-1,288)	Corridor crosses approximately 2.5 km^2 of critical habitat in San Bernardino Co., CA
Dipodomys nitratoides nitratoides	Tipton kangaroo rat	E	Sparsely vegetated alkali sink communities where soils are generally sandy or silty including valley grassland, saltbush and sink scrub.	CA (Kern-240)	NA
Dipodomys stephensi	Stephens' kangaroo rat	E	Inhabits annual grassland and coastal sage scrub with sparse shrub cover.	CA (Riverside-258, San Bernardino-1,288, San Diego-15)	NA
Eumetopias jubatus	Steller sea-lion	T	Coastal waters of the North Pacific. Sometimes rivers are ascended in pursuit of prey.	CA (Humboldt-2)	Corridors do not cross critical habitat
Herpailurus yagouaroundi tolteca	Sinaloan jaguarundi	E	Presumably extirpated from the U.S. One 1938 sighting from AZ was made in semidesert grasslands.	AZ (Santa Cruz-25)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Leopardus pardalis	Ocelot	E	Habitats with good cover including dense chaparral thickets, humid tropical forests, mangrove forests, swampy savannas, brushland, and riverine scrub in deserts.	AZ (Yavapai-148)	NA
Leptonycteris curasoae yerbabuenae	Lesser long-nosed bat	E	Roosts in old mines and caves at the base of mountains near alluvial fans vegetated with agave, yucca, saguaro, and organ pipe cactus.	AZ (Cochise-12, Maricopa-273, Pinal-25, Santa Cruz-25); NM (Hidalgo-20)	NA
Leptonycteris nivalis	Mexican long-nosed bat	E	Desert scrub, open conifer-oak woodlands, and pine forests. Colonies roost in caves, culverts, hollow trees, or unused buildings.	NM (Hidalgo-20)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Lynx canadensis	Canada lynx	T	Northern coniferous forests, especially uneven-aged stands with relatively open canopies and well-developed understory vegetation.	CO (Clear Creek-3, Garfield-49, Gunnison-97, Montezuma-42, Routt-11); ID (Blaine-26, Bonneville-7, Cassia-14, Clark-14, Elmore-79, Jerome-55, Kootenai-6, Oneida-4, Power-11, Shoshone-8, Twin Falls-110); MT (Beaverhead-38, Broadwater-2, Carbon-11, Granite-14, Jefferson-55, Madison-2, Mineral-56, Missoula-12, Powell-6, Silver Bow-4); OR (Baker-16, Clackamas-66, Crook-33, Deschutes-77, Douglas-19, Harney-162, Jackson-15, Klamath-69, Lake-188, Linn-3, Multnomah-0.5, Wasco-22); UT (Daggett-29, Emery-55, Sanpete-17, Sevier-34, Uintah-97, Wasatch-15); WA (Chelan-9); WY (Albany-8, Carbon-129, Fremont-20)	Corridors do not cross critical habitat
Martes pennanti	West coast fisher	C	Mature conifer and mixed conifer/hardwood forests at mid- to lower elevation.	CA (Humboldt-2, Inyo-166, Kern-240, Mono-31, Nevada-22, Placer-7, Shasta-21, Sierra-15, Siskiyou-27, Trinity-36); OR (Clackamas-66, Deschutes-77, Douglas-19, Jackson-15, Klamath-69, Lane-9)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Microtus californicus scirpensis	Amargosa vole	E	Wetland pockets of bulrushes, cattails, salt grass, and willows.	CA (Inyo-166)	NA
Microtus mexicanus hualpaiensis	Hualapai Mexican vole	E	Meadows of grasses, sedges, and forbs within ponderosa pine forests on steep mountain slopes.	AZ (Coconino-198, Mohave-500, Yavapai-148)	NA
Mustela nigripes	Black-footed ferret	E	Historically occupied areas ranging from the shortgrass and midgrass prairie to semidesert shrublands.	AZ (Coconino-198, Navajo-4); CO (Delta-22, Mesa-297, Moffat-159, Ouray-1, Rio Blanco-127); UT (Carbon-26, Daggett-29, Emery-55, Grand-156, San Juan-249); WY (Carbon-129)	NA
Odocoileus virginianus leucurus	Columbian white-tailed deer	E	Wet prairie and lightly wooded bottomlands of the lower Columbia River.	OR (Columbia-7, Douglas-19, Lane-9, Multnomah-0.5)	NA
Ovis canadensis	Peninsular bighorn sheep	E	San Jacinto Mountains in southern CA.	CA (Imperial-369, Riverside-258, San Diego-15)	Corridor crosses approximately 32 km^2 of critical habitat in Imperial and San Diego Co., CA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Ovis canadensis californiana	Sierra Nevada bighorn sheep	E	Steep rocky terrain at high elevations along the crest of the Sierra Nevada in summer, winter habitats at the eastern base of the range.	CA (Inyo-166, Modoc-118, Mono-31)	NA
Panthera onca	Jaguar	E	Tropical and subtropical forests, lowland scrub and woodland, thorn scrub, pampas/llanos, desert, swampy savanna, mangrove swamps, lagoons, marshland, and floating islands of vegetation.	AZ (Cochise-12, Santa Cruz-25); NM (Hidalgo-20)	NA
Perognathus longimembris pacificus	Pacific pocket mouse	E	Shrublands with firm sandy soil. Fine-grain, sandy substrates in the immediate vicinity of the ocean; coastal strand, coastal dunes, river alluvium, and coastal sage scrub growing on marine terraces	CA (Orange-5, San Diego-15)	NA
Sorex ornatus relictus	Buena Vista Lake ornate shrew	E	Marshes on the margins of the historical Lake Buena Vista. May also occur in dense vegetation along marshes in the Tulare Basin.	CA (Kern-240)	Corridors do not cross critical habitat
Spermophilus tereticaudus chlorus	Palm Springs round-tailed ground squirrel	C	Dunes and hammocks in the Coachella Valley, CA.	CA (Riverside-258)	NA

TABLE R (Cont.)

Scientific Name	Common Name	Listing Status[a]	Preferred Habitat	Area (km^2) of Designated Corridors in Counties in Which Species Is Known to Occur[b]	Area of Species Critical Habitat Crossed by Designated Corridors
Spermophilus washingtoni	Washington ground squirrel	C	Shrub-steppe habitat of the Columbia Basin especially in areas of high grass cover, on deep soils with low clay content.	OR (Umatilla)	NA
Thomomys mazama glacialis	Roy Prairie pocket gopher	C	Open grassy areas, including pastures, prairies, savannas, and open early successional woodlands and forests.	WA (King-14)	NA
Ursus arctos horribilis	Grizzly bear	T[f]	Once found in a wide variety of habitats including open prairie, brushlands, riparian woodlands, and semidesert scrub. Now found mostly in large areas of arctic tundra, alpine tundra, and subalpine mountain forests.	ID (Clark-14); MT (Beaverhead-38, Carbon-11, Madison-2, Missoula-12, Powell-6); NM (McKinley-7); UT (Daggett-29, Garfield-53, Iron-27, Piute-43, Sanpete-17, Sevier-34, Uintah-97, Utah-40, Wasatch-15, Washington-118); WY (Fremont-20, Hot Springs-11)	NA
Vulpes macrotis mutica	San Joaquin kit fox	E	Semidesert shrubland and margins of pinyon-juniper woodlands.	CA (Kern-240)	NA
Zapus hudsonius preblei	Preble's meadow jumping mouse	T	Riparian shrubland, riparian forest, and grasslands.	WY (Albany-8, Carbon-129, Natrona-59)	Corridors do not cross critical habitat

Footnotes continued on next page.

TABLE R (Cont.)

[a] C = candidate for listing, E = listed as endangered, PT = proposed for listing as threatened, T = listed as threatened.

[b] Occurrence of species in counties was determined based on information on the NatureServe website at http://www.natureserve.org/explorer/index.htm.

[c] NA = not applicable because critical habitat has not been designated for the species or does not exist in counties where designated corridors would be located. Location of designated critical habitat was determined based on information on the USFWS *Threatened and Endangered Species System* website at http://ecos.fws.gov/tess_public/. For fish species with critical habitat in streams or rivers, the amount of critical habitat crossed by corridors was determined assuming the habitat was 1 km wide.

[d] Includes one or more "evolutionarily significant units" that spawn in different river basins or at different times of year and that have been assigned separate listing status.

[e] More than one listing category indicates that the species has different status in different states.

[f] Grizzly bears in the Yellowstone District Population Segment in Idaho, Montana, and Wyoming are considered recovered and have been delisted.

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