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APPENDIX E:
THREATENED, ENDANGERED, AND SENSITIVE SPECIES
WITHIN THE OIL SHALE AND TAR SANDS STUDY AREA

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1 **TABLE E-1 Federally Listed and State-Listed Threatened, Endangered, Candidate Species, Species of Special Concern,**
 2 **and BLM-Designated Sensitive Species That Occur in the Study Area**

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants						
<i>Abies concolor</i>	White fir	NL ^e	WY-SC	WY-Sweetwater	Green River	Foothills and lower slopes of mountains and in association with aspen woods and often on south-facing slopes on dry shallow soils. Only known record is from Little Mountain in Sweetwater County.
<i>Achnatherum swallenii</i>	Swallen mountain-ricegrass	NL	WY-SC	WY-Lincoln, Sublette	Green River	Calcareous sandy soils of rocky slopes and knobs at elevations between 6,600 and 7,100 ft.
<i>Amsonia jonesii</i>	Jones blue star	BLM	NL	UT-Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; all STSAs	Desert shrub, sagebrush, and pinyon-juniper communities, often on sandy or white shale soils; 6,000 to 7,000 ft.
<i>Androstephium breviflorum</i>	Purple funnel-lily	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Shadscale, sagebrush, and pinyon-juniper communities on fine textured shale-clay substrates; 6,000 to 7,500 ft.
<i>Antennaria arcuata</i>	Meadow pussytoes	BLM	WY-SC	WY-Sublette	Green River	Subirrigated meadows on hummocks, level ground, or shallow depressions on alkaline or clay soils; 4,900 to 7,900 ft.
<i>Aquilegia scopulorum</i> var. <i>goodrichii</i>	Utah columbine	BLM	NL	UT-Carbon, Duchesne, Emery, Grand, Uintah	Uinta; all STSAs	Coniferous forest and alpine tundra communities on limestone or igneous scree slopes at 6,400 to 10,250 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Arabis vivariensis</i>	Park rockcress	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Limestone and sandstone outcrops in mixed desert shrub and pinyon-juniper communities at 5,800 to 6,000 ft.
<i>Artemisia biennis</i> var. <i>diffusa</i>	Mystery wormwood	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Clay flats and playas at approximately 6,500 ft.
<i>Astragalus bisulcatus</i> var. <i>haydenianus</i>	Hayden's milkvetch	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Clay or sandy soils near springs associated with sandstone rock outcrops on rims, upper slopes, and draws.
<i>Astragalus calycosus</i> var. <i>calycosus</i>	King's milkvetch	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Pinyon-juniper woodland between 4,900 and 12,000 ft.
<i>Astragalus coltonii</i> var. <i>moabensis</i>	Moab milkvetch	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Pinyon-juniper and mountain brush communities between 4,400 and 6,900 ft.
<i>Astragalus debequaeus</i>	Debeque milkvetch	BLM	NL	CO-Garfield	Piceance	Varicolored, fine-textured, seleniferous, saline soils of the Wasatch Formation-Atwell Gulch Member. Barren outcrops of dark clay interspersed with lenses of sandstone at elevations between 5,100 and 6,400 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Astragalus detritalis</i>	Debris milkvetch	BLM	NL	CO-Rio Blanco; UT-Duchesne, Uintah	Piceance and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, and Sunnyside STSAs	Pinyon-juniper and mixed desert shrub communities; often rocky soils ranging from sandy clays to sandy loams. Alluvial terraces with cobbles. Elevations between 5,400 and 7,200 ft.
<i>Astragalus duchesnensis</i>	Duchesne milkvetch	BLM	NL	CO-Rio Blanco; UT-Duchesne, Uintah	Piceance and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, and Sunnyside STSAs	Salt desert shrub and pinyon-juniper communities on sandy and gravelly soils around sandstone or shale outcrops; 4,700 to 6,050 ft.
<i>Astragalus equisolensis</i>	Horseshoe milkvetch	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Primarily restricted to desert shrub and pinyon-juniper communities of the Horseshoe Bend of the Green River.
<i>Astragalus hamiltonii</i>	Hamilton's milkvetch	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Desert scrub communities on clay loam soils, sometimes with scattered pinyon and juniper; 5,300 to 6,200 ft.
<i>Astragalus lentiginosus</i> var. <i>salinus</i>	Sodaville milkvetch	NL	WY-SC	WY-Lincoln, Uinta	Green River	Moist, open, alkaline hummocks and drainages near cool springs.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Astragalus musiniensis</i>	Ferron milkvetch	BLM	NL	CO-Garfield; UT-Emery, Garfield, Grand, Wayne	Piceance; P.R. Spring, San Rafael, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Gullied bluffs, knolls, benches, and open hillsides; in pinyon-juniper woodlands or desert shrub communities, mostly on shale, sandstone, or alluvium derived from them at elevations between 4,700 and 7,000 ft.
<i>Astragalus naturitensis</i>	Naturita milkvetch	BLM	NL	CO-Garfield; UT-San Juan	Piceance; White Canyon STSA	Sandstone mesas, ledges, crevices, and slopes in pinyon-juniper woodlands at elevations between 5,000 and 7,000 ft.
<i>Astragalus paysonii</i>	Payson's milkvetch	NL	WY-SC	WY-Lincoln, Sublette	Green River	Disturbed areas such as recovering burns, clear cuts, road cuts, and blow downs; usually found on sandy soils; 5,850 to 9,600 ft.
<i>Astragalus piscator</i>	Fisher Towers milkvetch	BLM	NL	UT-Garfield, Grand, San Juan, Wayne	Tar Sand Triangle and White Canyon STSAs	Sandy, sometimes gypsiferous soils of valley benches and gullied foothills at elevations between 4,300 and 5,600 ft.
<i>Astragalus proimanthus</i>	Precocious milkvetch	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Mainly in cushion plant communities on light-colored, somewhat calcareous clay soils where coarser cobbles are derived from shale on summits and upper slopes of low, windy ridges at about 2,130-m elevations.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Astragalus racemosus</i> var. <i>treleasei</i>	Trelease's racemose milkvetch	BLM	WY-SC	WY-Sublette, Uinta	Green River	Silty loam soils derived from shales, primarily in sparsely vegetated outwash flats, outcrops of river valleys, and fluted badlands slopes within sagebrush-grassland communities and at elevations between 6,500 and 7,500 ft.
<i>Astragalus rafaensis</i>	San Rafael milkvetch	BLM	NL	UT-Emery, Grand	P.R. Spring and San Rafael STSAs	Banks of sandy clay gulches, in pockets at the foot of sandstone outcrops, or among boulders along dry watercourses at elevations between 4,500 and 5,300 ft.
<i>Atriplex falcata</i>	Sickle saltbush	NL	WY-SC	WY-Sublette, Sweetwater, Uinta	Green River and Washakie	Sagebrush, shadscale, and greasewood communities in fine-textured saline substrates at elevations between 1,300 and 2,000 m.
<i>Atriplex wolfii</i>	Wolf's orache	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Alkaline flats.
<i>Boechera crandallii</i>	Crandall's rockcress	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Stony soils over limestone, often within sagebrush communities.
<i>Boechera selbyi</i>	Selby's rockcress	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Foothills and montane habitats.
<i>Bolophyta ligulata</i>	Ligulate feverfew	BLM	NL	CO-Rio Blanco	Piceance	Barren shale knolls; 5,400 to 6,500 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Brickellia microphylla</i> var. <i>scabra</i>	Little-leaved brickell-bush	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Dry rocky places, canyon walls, sand dunes, and washes at elevations between 1,200 and 2,400 m.
<i>Carex specuicola</i>	Navajo sedge	ESA-T	NL	UT-San Juan	None	Moist, sandy to silty soils of shady seep-spring pockets or alcoves with somewhat limited soil development, at elevations between 1,740 and 1,830 m.
<i>Ceanothus martinii</i>	Utah mountain lilac	NL	WY-SC	WY-Lincoln, Sweetwater	Green River and Washakie	Steep sagebrush slopes or mountain shrub communities on shallow-stony or hard clay soils at elevations between 7,600 and 8,100 ft.
<i>Cercocarpus ledifolius</i> var. <i>intricatus</i>	Dwarf mountain mahogany	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Pinyon juniper-woodland; 4,500 to 9,800 ft.
<i>Chamaechaenactis scaposa</i>	Fullstem	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Dry, open, relatively barren silty or clay soils derived from shale, sandstone, marl, or limestone, and often with a rocky, sandy, or gravelly overburden, usually in pinyon-juniper woodlands at elevations between 1,400 and 2,600 m.
<i>Chrysothamnus Greenei</i>	Greene rabbitbrush	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy washes and dry open areas within desert habitats at elevations between 1,300 and 2,000 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Cirsium aridum</i>	Cedar Rim thistle	BLM	WY-SC	WY-Sublette, Sweetwater	Green River and Washakie	Barren, chalk hills, fine-textured sandy and shaley draws, and gravelly slopes.
<i>Cirsium ownbeyi</i>	Ownbey's thistle	BLM	WY-SC	UT-Uintah; WY-Sweetwater	Green River, Uinta, and Washakie; Raven Ridge STSA	Dry sites or sometimes in seeps on stony soils in sparsely vegetated areas of pinyon-juniper woodlands, sagebrush, arid grasslands, and riparian scrub at elevations between 1,500 and 2,400 m.
<i>Cirsium perplexans</i>	Adobe thistle	BLM	NL	CO-Garfield	Piceance	Almost exclusively on clay soils that are derived from shales of the Mancos or Wasatch Formations. Associated plant communities include pinyon-juniper woodlands and sagebrush, saltbrush, and mixed shrublands.
<i>Cleomella palmeriana</i> var. <i>goodrichii</i>	Goodrich cleomella	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Salt desert shrub communities on eroded slopes of heavy clay at approximately 5,400 ft.
<i>Collomia grandiflora</i>	Large-flower collomia	NL	WY-SC	WY-Lincoln	Green River	Dry, open, or lightly wooded areas.
<i>Cryptantha barnebyi</i>	Barneby's cat's-eye	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Gently rolling white shale knolls of the Green River Formation; mostly in shadscale and pinyon-juniper communities between 5,550 and 7,200 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Cryptantha caespitosa</i>	Caespitose cat's-eye	BLM	NL	CO-Rio Blanco; UT-Carbon, Duchesne, Uintah	Piceance and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Raven Ridge, Pariette, P.R. Spring, and Sunnyside STSAs	Sparsely vegetated shale knolls, with pinyon-juniper or sage-brush, usually with other cushion plants at elevations between 6,200 and 8,100 ft.
<i>Cryptantha gracilis</i>	Slender cryptantha	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Pinyon-juniper woodland between 2,900 and 7,000 ft.
<i>Cryptantha grahamii</i>	Graham's cat's-eye	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Green River shale in mixed desert shrub, sagebrush, pinyon-juniper, and mountain brush communities at elevations between 4,550 and 6,750 ft.
<i>Cryptantha osterhoutii</i>	Osterhout cat's-eye	BLM	NL	UT-Emery, Garfield, Grand, San Juan, Wayne	P.R. Spring, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Dry barren sites in reddish purple decomposed sandstone at elevations between 1,370 and 1,860 m, or in dry sandy soil in the desert, in blackbrush, mixed desert shrub, oak brush, salt bush, and pinyon-juniper communities at 1,520 to 2,000 m.
<i>Cryptantha rollinsii</i>	Rollins' cat's-eye	BLM	WY-SC	CO-Rio Blanco; UT-Duchesne, San Raphael, Uintah, Wayne; WY-Sweetwater	Green River, Piceance, Uinta, and Washakie; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, and Sunnyside STSAs	White shale slopes of the Green River Formation; in pinyon-juniper or cold desert shrubland communities at elevations between 5,300 and 5,800 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Cycladenia humilis</i> var. <i>jonesii</i>	Jones cycladenia	ESA-T	NL	UT-Emery, Garfield, Grand, Uintah	Hill Creek, Pariette, P.R. Spring, and San Rafael STSAs	Known from a few areas in and around the Canyonlands region of southeastern Utah.
<i>Cymopterus duchesnensis</i>	Uinta Basin spring-parsley	BLM	NL	CO-Rio Blanco; UT-Duchesne, Uintah	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Cold desert shrub, sagebrush, and juniper communities; sandy clay and clay semibarrens of Mancos and Morrison shales; Morrison, Uintah, Wasatch, and Green River Formations at elevations between 4,700 and 6,800 ft.
<i>Descurainia pinnata</i> var. <i>paysonii</i>	Payson's tansy mustard	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy flats and stabilized dunes with shrub cover.
<i>Descurainia torulosa</i>	Wyoming tansymustard	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy soil at the base of cliffs composed of volcanic breccia or sandstone; 7,700 to 10,500 ft.
<i>Downingia laeta</i>	Great Basin downingia	NL	WY-SC	WY-Uinta	Green River	Vernal pools, edge of ponds and lakes, and in roadside ditches.
<i>Draba juniperina</i>	Uinta draba	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Primarily on sandy-clay gravelly soils in juniper woodlands. May also occur in sagebrush-grasslands on sandstones at the edge of juniper woodlands, semibarren cushion plant communities on white clay-sandy rims, and mountain mahogany-juniper thickets.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Elymus simplex</i> var. <i>luxurians</i>	Long-awned alkali wild-rye	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sand dunes.
<i>Ephedra viridis</i> var. <i>viridis</i>	Green Mormon tea	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy or rocky soils of upland desert habitats.
<i>Eriastrum wilcoxii</i>	Wilcox eriastrum	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sagebrush scrub and pinyon-juniper woodland to 9,000 ft.
<i>Erigeron compactus</i> var. <i>consimilis</i>	San Rafael daisy	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Shale soils in pinyon-juniper woodland and desert scrub at elevations between 6,100 and 7,400 ft.
<i>Erigeron maguirei</i>	Maguire daisy	ESA-T	NL	UT-Emery, Garfield, Wayne	San Rafael STSA	Cool, mesic wash bottoms and dry, partially shaded slopes of eroded sandstone cliffs of Wingate, Chinle, and Navajo Sandstone Formations in mountain shrub, Douglas-fir, ponderosa pine, and lower limits of juniper woodland communities at elevations between 5,400 and 7,100 ft.
<i>Eriogonum contortum</i>	Grand buckwheat	BLM	NL	CO-Garfield; UT-Grand	Piceance; P.R. Spring STSA	Mancos Shale badlands, with shadscale and other salt desert shrub communities at elevations between 4,500 and 5,100 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Eriogonum corymbosum</i> var. <i>corymbosum</i>	Crisp-leaf wild buckwheat	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy, gravelly, and clayey flats, washes, slopes, outcrops, and cliffs in saltbush, blackbrush, and sagebrush communities, and pinyon-juniper and montane conifer woodlands at elevations between 1,200 and 2,700 m.
<i>Eriogonum divaricatum</i>	Divergent wild buckwheat	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Clay flats and slopes in saltbush, greasewood, and sagebrush communities, and pinyon-juniper woodlands at elevations between 1,100 and 2,300 m.
<i>Eriogonum ephedroides</i>	Ephedra buckwheat	BLM	NL	CO-Rio Blanco; UT-Uintah	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	White shale soils of the Green River Formation, in a matrix of open pinyon-juniper woodlands and/or mixed desert shrublands.
<i>Eriogonum hookeri</i>	Hooker wild buckwheat	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sandy washes, flats, and slopes in saltbush, greasewood, sagebrush, and mountain mahogany communities and pinyon-juniper woodlands at elevations between 1,300 and 2,500 m.
<i>Frasera ackermanae</i>	Ackerman frasera	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Semibarren areas on the Chinle Formation on clay substrates, often with scattered pinyon-juniper; at elevations between 5,830 and 6,000 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Galium coloradoense</i>	Colorado bedstraw	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Shaded rocky or sandstone crevices and cliffs in desert scrub, sagebrush, and pinyon-juniper.
<i>Gentianella tortuosa</i>	Utah gentian	BLM	NL	CO-Rio Blanco; UT-Duchesne, Emery, Garfield, Uintah	Piceance and Uinta	Green River Formation; barren shale knolls and slopes at elevations between 8,500 and 10,800 ft.
<i>Gilia stenothyrsa</i>	Narrow-stem gilia	BLM	NL	CO-Rio Blanco; UT-Carbon, Duchesne, Emery, Uintah	Piceance and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, and Sunnyside STSAs	Silty to gravelly loam soils derived from the Green River or Uinta Formations. In grassland, sagebrush, mountain-mahogany, or pinyon-juniper communities at elevations between 5,000 and 6,000 ft.
<i>Glossopetalon spinescens</i> var. <i>meionandrum</i>	Utah greasebush	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Gypsiferous and calciferous soils.
<i>Hymenoxys lapidicola</i>	Rock hymenoxys	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Ponderosa pine and pinyon-juniper communities; usually in rock crevices between 6,000 and 8,000 ft.
<i>Lathyrus lanszwertii</i> var. <i>lanszwertii</i>	Nevada sweetpea	NL	WY-SC	WY-Uinta	Green River	Aspen and aspen-fir communities; 8,800 to 9,600 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Lepidium barnebyanum</i>	Barneby ridge- cress	ESA-E	NL	UT-Duchesne	Uinta	Pinyon-juniper communities on poorly developed soils derived from white, marly shale outcrops of the Uinta Formation at elevations between 1,890 and 1,985 m. Mixed desert shrub and pinyon-juniper community.
<i>Lepidium huberi</i>	Huber's pepperplant	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Sagebrush, mountain brush, and pinyon-juniper communities, as well as coniferous forests. Occurs on sandstone substrates at elevations between 7,300 and 9,700 ft.
<i>Lepidium integrifolium</i> var. <i>integrifolium</i>	Entire-leaved peppergrass	BLM	WY-SC	WY-Lincoln, Uinta	Green River	Moist meadows at lower elevations.
<i>Lesquerella congesta</i>	Dudley Bluffs bladderpod	ESA-T	NL	CO-Rio Blanco	Piceance	Barren, white shale outcrops of the Green River and Uinta Formations. Outcrops are exposed along drainages through erosion from downcutting of streams at elevations between 6,000 and 6,700 ft.
<i>Lesquerella macrocarpa</i>	Large-fruited bladderpod	BLM	WY-SC	WY-Lincoln, Sublette, Sweetwater	Green River and Washakie	Barren or sparsely vegetated gypsum-clay hills and benches and clay flats at elevations between 2,200 and 2,350 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Lesquerella multiceps</i>	Western bladderpod	BLM	WY-SC	WY-Lincoln	Green River	Rock outcrops, talus, and dry rocky soils on open ridges and slopes or in woodland openings at elevations between 7,800 and 9,500 ft.
<i>Lesquerella parviflora</i>	Piceance bladderpod	BLM	NL	CO-Garfield, Rio Blanco	Piceance	Endemic to outcrops of the Green River Shale Formation in the Piceance Basin. It grows on ledges and slopes of canyons in open areas.
<i>Lesquerella parvula</i>	Narrow-leaved bladderpod	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Knolls, slopes, and ridges in open areas of sagebrush and mountain shrub communities at elevations between 1,830 and 2,700 m.
<i>Lesquerella prostrata</i>	Prostrate bladderpod	NL	WY-SC	WY-Lincoln, Uinta	Green River	Plains, hills, and slopes in sagebrush, grass, and juniper communities at elevations between 6,000 and 8,000 ft.
<i>Listera borealis</i>	Northern twayblade	BLM	NL	CO-Garfield; UT-Duchesne, San Juan; WY-Sublette	Green River, Piceance, and Uinta; Argyle Canyon, Pariette, and White Canyon STSAs	Moist, shady spruce forests at elevations between 8,700 and 10,800 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Lomatium latilobum</i>	Canyonlands lomatium	BLM	NL	UT-Grand, San Juan	None	Entrada sandstone and Navajo sandstone, between fins and in slot canyons, in sandy soil and in crevices. Surrounding plant communities are desert shrub, pinyon-juniper, or ponderosa pine-mountain brush at elevations between 1,237 and 2,207 m.
<i>Lomatium triternatum</i> var. <i>anomalum</i>	Ternate desert-parsley	NL	WY-SC	WY-Lincoln	Green River	Dry to moist open areas at low to mid-elevations.
<i>Lygodesmia doloresensis</i>	Dolores River skeletonplant	BLM	NL	UT-Grand	P.R. Spring STSA	Juniper-desert shrub or juniper-grassland communities on alluvial soils derived from sandstone outcrops associated with the undivided lower portion of the Cutler Group, which appears in the vicinity of Moab, Utah, at elevations between 1,341 and 1,441 m.
<i>Mentzelia goodrichii</i>	Goodrich's blazingstar	BLM	NL	UT-Duchesne, Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Shale substrates of the Green River Formation in scattered pinyon-juniper, Douglas-fir, and rabbitbrush communities; elevations range between 8,100 and 8,800 ft.
<i>Mentzelia rhizomata</i>	Roan Cliffs blazingstar	BLM	NL	CO-Garfield	Piceance	Steep talus slopes derived from the Parachute Creek Member of the Green River Formation.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Mimulus eastwoodiae</i>	Eastwood monkey-flower	BLM	NL	UT-Garfield, Grand, San Juan	Tar Sand Triangle and White Canyon STSAs	Seeps.
<i>Minuartia nuttallii</i>	Nuttall sandwort	BLM	NL	UT-Duchesne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Uinta, and Washakie; Argyle Canyon and Pariette STSAs	Sagebrush hills to alpine slopes, especially on gravelly benches or talus.
<i>Monolepis pusilla</i>	Red poverty-weed	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Saline or alkaline soils of deserts.
<i>Opuntia polyacantha</i> var. <i>juniperina</i>	Juniper prickly-pear	NL	WY-SC	WY-Sublette, Sweetwater	Green River and Washakie	Pinyon-juniper woodlands at elevations between 1,600 and 1,900 m.
<i>Opuntia polyacantha</i> var. <i>rufispina</i>	Rufous-spine prickly-pear	NL	WY-SC	WY-Lincoln, Sweetwater	Green River and Washakie	Sagebrush grasslands, salt desert shrublands, and vegetated sand dunes on slopes and buttes.
<i>Oxytheca dendroidea</i>	Tree-like oxytheca	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Desert hills and sandy roadsides.
<i>Oxytropis besseyi</i> var. <i>obnapiformis</i>	Maybell locoweed	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Found on steep, south-facing slopes of chalk badlands.
<i>Packera crocata</i>	Saffron groundsel	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Wet meadows, along trails, and rocky outcrops at elevations between 1,800 and 3,500 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Parthenium ligulatum</i>	Ligulate feverfew	BLM	NL	CO-Rio Blanco; UT-Wayne	Piceance; Tar Sand Triangle STSA	Barren shale knolls at elevations between 5,400 and 6,500 ft.
<i>Pediocactus despainii</i>	San Rafael cactus	ESA-E	NL	UT-Emery, Wayne	San Rafael STSA	Hills, benches, and flats of open, semiarid grassland with scattered junipers and pinyon pines.
<i>Pediocactus winkleri</i>	Winkler cactus	ESA-T	NL	UT-Emery, Wayne	San Rafael STSA	Alkaline, fine-textured soils, primarily derived from the Dakota Formation. Associated with salt desert shrub communities at elevations between 1,450 and 1,600 m.
<i>Pediomelum aromaticum</i>	Paradox breadroot	BLM	NL	UT-Grand, San Juan	White Canyon STSA	Shallow rocky soils in open pinyon-juniper woodland with a sparse understory.
<i>Penstemon acaulis</i> var. <i>acaulis</i>	Stemless beardtongue	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Semibarren substrates in pinyon-juniper and sagebrush-grass communities at elevations between 5,500 and 8,200 ft.
<i>Penstemon debilis</i>	Parachute beardtongue	ESA-T	NL	CO-Garfield	Piceance	Oil shale outcrops on south-facing, steep white shale talus on the Mahogany Zone of the Parachute Creek Member of the Green River Formation; 2,400 to 2,800 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Penstemon gibbensii</i>	Gibbens' beardtongue	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Sparsely vegetated selenium-rich shale or sandy-clay slopes at elevations between 1,675 and 2,350 m. Surrounding vegetation is pinyon-juniper woodland, sagebrush, or greasewood-saltbush.
<i>Penstemon grahamii</i>	Graham's beardtongue	ESA-PT; BLM	NL	CO-Rio Blanco; UT-Duchesne, Uintah	Uinta; Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Exposed raw shale knolls and slopes derived from the Parachute Creek and Evacuation Creek members of the Green River Formation at elevations from 1,430 to 2,600 m. Most populations occur on the surface of the oil shale Mahogany ledge.
<i>Penstemon harringtonii</i>	Harrington beardtongue	BLM	NL	CO-Garfield	Piceance	Open sagebrush or, less commonly, pinyon-juniper habitats. Soils are typically rocky loams and rocky clay loams derived from coarse calcareous bedrock at elevations between 6,800 and 9,200 ft.
<i>Penstemon laricifolius</i> ssp. <i>exilifolius</i>	White beardtongue	NL	WY-SC	WY-Sublette	Green River	Not available.
<i>Penstemon scariosus</i> var. <i>albifluvis</i>	White River beardtongue	ESA-C	NL	CO-Rio Blanco; UT-Uintah	Piceance; Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Mixed desert shrub and pinyon-juniper communities on sparsely vegetated shale slopes of the Green River Formation at elevations between 5,000 and 7,200 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Penstemon scariosus</i> var. <i>garrettii</i>	Garrett's beardtongue	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Rolling semibarren badlands on clay soils, on gentle clay slopes covered with small slate fragments, or on steep clay or talus slopes covered with slate chips below steep cliffs at elevations between 7,600 and 8,400 ft.
<i>Phacelia argillacea</i>	Clay phacelia	ESA-E	NL	UT-Utah, Wasatch	Argyle Canyon	Steep slopes in sparse pinyon-juniper and mountain brush communities on shale-clay soils; 6,000 to 7,000 ft.
<i>Phacelia argylensis</i>	Argyle Canyon phacelia	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Pinyon-juniper and mountain brush communities at about 6,000 ft elevation.
<i>Phacelia demissa</i>	Intermountain phacelia	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Desert shrub often on clay barrens at elevations between 4,900 and 6,200 ft.
<i>Phacelia glandulosa</i> var. <i>deserta</i>	Desert glandular phacelia	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater	Green River and Washakie	Desert scrub, sagebrush, mountain brush communities, and road cuts, usually on clay soils; 5,000 to 8,400 ft.
<i>Phacelia incana</i>	Western phacelia	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Rocky or sandy-clay slopes amid juniper, sagebrush, shadscale, kochia, and mountain mahogany stands at elevations between 6,000 and 7,000 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Phacelia salina</i>	Nelson phacelia	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Alkaline flats and clay slopes.
<i>Phacelia scopulina</i> var. <i>submutica</i>	Debeque phacelia	ESA-T	NL	CO-Garfield	Piceance	Sparsely vegetated, steep slopes; in chocolate-brown or gray clay; on Atwell Gulch and Shire Members of the Wasatch Formation at elevations between 4,700 and 6,200 ft.
<i>Phacelia tetramera</i>	Tiny phacelia	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Alkaline soils and in vernal pools in sagebrush-grassland communities at elevations between 1,200 and 2,210 ft.
<i>Philadelphus microphyllus</i> var. <i>occidentalis</i>	Little-leaf mock-orange	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Rocky canyon sides between 6,000 and 8,500 ft.
<i>Phlox albomarginata</i>	White-margined phlox	NL	WY-SC	WY-Lincoln	Green River	Not available.
<i>Phlox pungens</i>	Beaver Rim phlox	BLM	WY-SC	WY-Lincoln, Sublette	Green River	Sparsely vegetated slopes on clays and shales in the Green River Basin at elevations between 1,830 and 2,250 m.
<i>Physaria condensata</i>	Tufted twinpod	BLM	WY-SC	WY-Lincoln, Sublette, Uinta	Green River	Sparsely vegetated, shale slopes and ridges at elevations between 1,980 and 2,130 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Physaria dornii</i>	Dorn's twinpod	BLM	WY-SC	WY-Lincoln, Uinta	Green River	Dry, sparsely vegetated, calcareous-shaley slopes and ridges dominated by mountain mahogany and rabbitbrush at elevations between 1,980 and 2,200 m.
<i>Physaria obcordata</i>	Dudley Bluffs twinpod	ESA-T	NL	CO-Rio Blanco	Piceance	Barren white outcrops and steep slopes exposed by creek downcutting. Restricted to the Parachute Creek Member of the oil, shale-bearing Green River Formation at elevations between 5,900 and 7,500 ft.
<i>Physocarpus alternans</i>	Dwarf ninebark	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Pinyon-juniper woodland between 5,900 and 10,200 ft.
<i>Populus deltoides</i> var. <i>wislizeni</i>	Fremont cottonwood	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Stream banks, sandbars, and other riparian areas at elevations below 6,000 ft.
<i>Potentilla multisecta</i>	Deep Creek cinquefoil	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Rocky subalpine and alpine slopes.
<i>Psilocarphus brevissimus</i>	Dwarf woolly-heads	NL	WY-SC	WY-Sublette	Green River	Grasslands to 8,200 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Ranunculus aestivalis</i>	Autumn buttercup	ESA-E	NL	UT-Garfield	None	Sevier River Valley, where freshwater seeps and springs surface, creating marshy or bog-like conditions. The surrounding region is semiarid and sagebrush-dominated at elevations between 1,938 and 1,965 m.
<i>Ranunculus flabellaris</i>	Yellow water-crowfoot	NL	WY-SC	WY-Uinta	Green River	Ponds, mudflats, and slow-moving streams at elevations between 6,600 and 6,700 ft.
<i>Rorippa calycina</i>	Persistent sepal yellowcress	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Riverbanks and shorelines, usually on sandy soils near high water line at elevations between 4,300 and 6,800 ft.
<i>Sambucus cerulea</i>	Blue elderberry	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Moist, well-drained sunny sites of early seral communities, or in openings in moist forest habitats (slopes, canyons, cliff bases, streamsides, stream banks, and riparian woodlands) and moist areas within drier, more open habitats (sagebrush, mountain brush, pinyon-juniper, ponderosa pine, and often along fence rows and roads); at elevations up to 10,000 ft.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Schoenocrambe argillacea</i>	Clay reed-mustard	ESA-T	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Mixed desert shrub communities on precipitous, typically north-facing slopes of the Evacuation Creek Member of the Green River Formation. These slopes consist of at-the-surface bedrock, scree, and fine-textured soils at elevations between 1,463 and 1,768 m.
<i>Schoenocrambe barnebyi</i>	Barneby reed-mustard	ESA-E	NL	UT-Emery, Wayne	San Rafael STSA	Mixed desert shrub communities on steep, typically north-facing slopes on red, selenium-rich, fine-textured soils of the Moenkopi and Chinle Formations at elevations between 1,705 and 1,985 m.
<i>Schoenocrambe suffrutescens</i>	Shrubby reed-mustard	ESA-E	NL	UT-Duchesne, Uintah	Uinta; Hill Creek, Pariette, P.R. Spring, and Sunnyside STSAs	Mixed desert shrub communities and, at some locations, in pinyon-juniper and desert shrub, on semibarren, white-shale layers of the Evacuation Creek Member of the Green River Formation. Commonly on level to moderately sloping ground surfaces. Soils are dry, shallow, and fine-textured and are usually overlain by shale fragments at elevations between 1,555 and 1,981 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Sclerocactus brevispinus</i>	Pariette cactus	ESA-T	NL	UT-Duchesne, Uintah	Uinta; Hill Creek, Pariette, P.R. Spring, and Sunnyside STSAs	Endemic to highly saline and alkaline soils; currently known only from clay badlands in the Pariette Draw of Duchesne County, Utah; 4,600 to 4,950 ft.
<i>Sclerocactus glaucus</i>	Uinta Basin hookless cactus	ESA-T	NL	CO-Garfield; UT-Carbon, Duchesne, Uintah	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, and Sunnyside STSAs	Rocky hills, mesa slopes, and alluvial benches; in desert shrub communities at elevations between 4,500 and 6,000 ft.
<i>Sclerocactus wrightiae</i>	Wright fishhook cactus	ESA-E	NL	UT-Emery, Wayne	San Rafael and Tar Sand Triangle STSAs	Barren, alkaline soils with widely scattered shrubs, perennial herbs, bunch grasses, or scattered pinyon and juniper at elevations between 1,460 and 1,865 m. Soils vary from clay, to sandy silts, to fine sands that may have a high gypsum content or contain little or no gypsum. Soil crusts are usually present, and the ground surface is usually littered with sandstone or basalt gravels, cobbles, and boulders.
<i>Senecio spartioides</i> var. <i>multicapitatus</i>	Many-headed broom groundsel	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Plains, open slopes, valleys, arroyos, and dunes in pinyon-juniper woodlands, ponderosa pine forests, and desert areas; an early colonizer of disturbed soils.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Silene douglasii</i>	Douglas' campion	NL	WY-SC	WY-Lincoln	Green River	Sagebrush and lodgepole pine communities at elevations between 5,000 and 9,500 ft.
<i>Spiranthes diluvialis</i>	Ute ladies'-tresses	ESA-T	NL	UT-Duchesne, Garfield, Uintah, Wayne	Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Moist to very wet meadows along streams or in abandoned stream meanders that still retain ample groundwater. Also near springs, seeps, and lakeshores at elevations between 1,300 and 1,600 m.
<i>Thelesperma caespitosum</i>	Green River greenthread	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	White shales of the Green River Formation in association with pinyon-juniper and mountain mahogany communities; approximately 6,250 ft.
<i>Thelesperma pubescens</i>	Uinta greenthread	BLM	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Sparsely vegetated windy rims of coarse-cobble soils of the Bishop Conglomerate in grassland, sagebrush-grassland, or low prostrate forb communities, and at elevations between 2,470 and 2,710 m.
<i>Townsendia aprica</i>	Last chance townsendia	ESA-T	NL	UT-Emery, Wayne	San Rafael STSA	Pinyon-juniper and salt desert shrub communities on barren, silty, silty clay, or gravelly clay soils of the Mancos Shale Formation at elevations between 1,695 and 2,440 m.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Plants (Cont.)						
<i>Townsendia microcephala</i>	Cedar Mountain Easter-daisy	BLM	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Rocky slopes and cobble ridges of the Bishop Conglomerate of the Uinta Mountains.
<i>Townsendia strigosa</i>	Strigose Easter-daisy	BLM	NL	UT-Duchesne, Uintah	Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Desert scrub and sagebrush communities between 4,700 and 6,200 ft.
<i>Yucca sterilis</i>	Spanish bayonet	BLM	NL	UT-Uintah	Uinta; Asphalt Ridge, Hill Creek, P.R. Spring, Pariette, and Raven Ridge STSAs	Sandy soils in salt desert shrub, pinyon-juniper, and shadscale communities at elevations between 4,790 and 5,800 ft.
Invertebrates						
<i>Oreohelix eurekaensis</i>	Eureka mountainsnail	BLM	UT-SC	UT-Duchesne, Grand	None	Terrestrial; forests of aspen, spruce, pine, and fir with open grassy areas with interspersed stands of sagebrush, juniper, and scrub oak.
<i>Oreohelix yavapai</i>	Yavapai mountainsnail	BLM	UT-SC	UT-San Juan	None	Terrestrial; aspen and spruce groves with open areas of grass and sandstone outcrops.
<i>Physa utahensis</i>	Utah physa	BLM	UT-SC	UT-Garfield	None	Vegetated springs.
<i>Pyrgulopsis plicata</i>	Black Canyon pyrg	BLM	UT-SC	UT-Garfield	None	Known only from a complex of springs in Black Canyon, East Fork Sevier River, Garfield County, Utah, to which it is presumably strictly endemic.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Invertebrates						
(Cont.)						
<i>Speyeria nokomis nokomis</i>	Great Basin silverspot butterfly	BLM	NL	UT-Duchesne, Uintah	Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Streamside meadows and open seepage areas with an abundance of violets, in generally desert landscapes.
Fish						
<i>Catostomus discobolus</i>	Bluehead sucker	BLM	WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Wide range of stream habitats, including cold, clear mountain streams and warm, turbid streams; rarely occurs in lakes. Adults prefer moderate to fast-flowing water above rubble-rock substrate; young prefer quiet shallow areas near shoreline.
<i>Catostomus latipinnis</i>	Flannelmouth sucker	BLM	WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah; Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Moderate to large rivers. Typical of pools and deeper runs and often entering mouths of small tributaries; also in riffles and backwaters.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
<i>Fish (Cont.)</i>						
<i>Gila copei</i>	Leatherside chub	BLM	UT-SC, WY-SC	UT-Duchesne, Emery, Garfield, Wayne; WY-Lincoln, Uinta	Green River	Adults occur in rocky flowing pools and riffles of cold creeks and small to medium rivers. Young occupy brushy areas or quiet pockets near shore.
<i>Gila cypha</i>	Humpback chub	ESA-E	CO-T	UT-Carbon, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; Asphalt Ridge, Hill Creek, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Large rivers. Adults use various habitats, including deep turbulent currents, shaded canyon pools, and areas under shaded ledges in moderate current, riffles, and eddies. Young have been taken in backwaters over nonrocky substrate. Presumed to have been extirpated in Wyoming.
<i>Gila elegans</i>	Bonytail	ESA-E	NL	UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; Asphalt Ridge, Hill Creek, Pariette, Raven Ridge, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Main stream of mid-sized to large rivers. Wild bonytail believed to have been extirpated in the Green River and the Colorado River. A number of experimental reintroductions have been made.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Fish (Cont.)						
<i>Gila robusta</i>	Roundtail chub	BLM	CO-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Rocky runs, rapids, and pools of creeks and small to large rivers.
<i>Oncorhynchus clarkii pleuriticus</i>	Colorado River cutthroat trout	BLM	CO-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Duchesne, Garfield, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; Argyle Canyon STSA	Requires cool, clear water and well-vegetated stream banks for cover and bank stability; in-stream cover, in the form of deep pools and boulders and logs, is also important; adapted to relatively cold water; thrives at high elevations.
<i>Oncorhynchus clarkii utah</i>	Bonneville cutthroat trout	BLM	WY-SC	WY-Lincoln, Uinta	Green River	Habitats ranging from high-elevation streams with coniferous and deciduous riparian trees to low-elevation streams in sage-steppe grasslands containing herbaceous riparian zones. Beaver ponds may be important as both summer and winter habitat for adults.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Fish (Cont.)						
<i>Ptychocheilus lucius</i>	Colorado pikeminnow	ESA-E	CO-T	CO-Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, Raven Ridge, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Medium to large rivers. Young prefer small, quiet backwaters. Adults use various habitats, including deep, turbid, strongly flowing water and eddies, runs, flooded bottoms, or backwaters (especially during high flow). Found throughout the Green River and Colorado River. Presumed to have been extirpated in Wyoming.
<i>Rhinichthys osculus thermalis</i>	Kendall Warm Springs dace	ESA-E	NL	WY-Sublette	Green River	Narrowly endemic to about 930 ft of spring outflow along the north face of a limestone ridge. Occurs in pools and quiet eddies where plant and debris are present.
<i>Xyrauchen texanus</i>	Razorback sucker	ESA-E	CO-E	CO-Garfield, Rio Blanco; UT-Carbon, Emery Garfield, Grand, San Juan, Uintah, Wayne	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, Raven Ridge, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Habitats include slow areas, backwaters, and eddies of medium to large rivers. Believed to have been extirpated in Wyoming.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Amphibians						
<i>Bufo boreas</i>	Boreal toad	BLM	CO-E; UT-SC; WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Uintah, Wayne; WY-Lincoln, Sublette, Uinta	Green River, Piceance, and Uinta	Marshes, wet meadows, streams, beaver ponds, glacial kettle ponds, and lakes interspersed in subalpine forest (lodgepole pine, Englemann spruce, subalpine fir, and aspen).
<i>Bufo microscaphus</i>	Arizona toad	BLM	UT-SC	UT-Garfield, San Juan	None	Irrigation ditches and flooded fields, as well as streams bordered by willows and cottonwoods.
<i>Hyla arenicolor</i>	Canyon treefrog	BLM	NL	UT-Garfield, Grand, Wayne, San Juan	Tar Sand Triangle and White Canyon STSAs	Temporary or permanent pools in rocky arid scrub and mountains in a wide range of elevations between 300 and 3,000 m.
<i>Rana luteiventris</i>	Columbia spotted frog	BLM	WY-SC	UT-Utah, Wasatch; WY-Lincoln, Sublette	Argyle Canyon, Green River, and Uintah	Rarely found far from permanent quiet water; usually at the grass-sedge margins of streams, lakes, ponds, springs, and marshes.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Amphibians (Cont.)						
<i>Rana pipiens</i>	Northern leopard frog	BLM	CO-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Wet meadows, marshes, ponds, glacial kettle ponds, beaver ponds, lakes, reservoirs, streams, and irrigation ditches.
<i>Spea intermontana</i>	Great basin spadefoot	BLM	WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Pinyon-juniper woodlands, sagebrush, and semidesert shrublands in rocky canyons, broad dry basins, and stream floodplains.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Reptiles						
<i>Crotalus oreganus concolor</i>	Midget faded rattlesnake	BLM	CO-SC	CO-Garfield, Rio Blanco; WY-Sweetwater	Green River, Piceance, and Washakie	High, cold desert dominated by sagebrush, with an abundance of rock outcrops and exposed canyon walls.
<i>Elaphe guttata</i>	Corn snake	BLM	UT-SC	UT-Grand, San Juan	White Canyon STSA	Rocky hillsides, meadows, along streams and river bottoms, in canyons and arroyos, in barnyards, near springs, and in wooded areas.
<i>Gambelia wislizenii</i>	Longnose leopard lizard	BLM	CO-SC	CO-Garfield	Piceance	Flat or gently sloping shrublands with a large percentage of open ground; stands of greasewood and sagebrush on deep, sandy soils and broad outwash plains in or near the mouths of canyons.
<i>Liochlorophis vernalis</i>	Smooth greensnake	BLM	UT-SC	UT-Carbon, Duchesne, Grand, San Juan, Uintah	Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, Sunnyside, and White Canyon STSAs	Meadows, grassy marshes, mountain shrublands, stream borders, bogs, and open, moist woodland.
<i>Sauromalus ater</i>	Common chuckwalla	BLM	UT-SC	UT-Garfield, San Juan	None	Rocky desert; lava flows, hillsides, and outcrops.
<i>Xantusia vigilis</i>	Desert night lizard	BLM	UT-SC	UT-Garfield, San Juan	Tar Sand Triangle and White Canyon STSAs	Arid and semiarid habitats among fallen leaves and trunks of yuccas, agaves, cacti, and other large plants; ranges locally into pinyon-juniper, sagebrush-blackbrush, and chaparral-oak.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds						
<i>Accipiter gentilis</i>	Northern goshawk	BLM	WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Variety of forest habitats. Occasionally seen during migration in shrublands.
<i>Aechmophorus clarkii</i>	Clark's grebe	NL	WY-SC	WY-Lincoln	Green River	Marshes, lakes, and bays. Nests among tall plants growing in water on the edge of large areas of open water.
<i>Aegolius funereus</i>	Boreal owl	NL	WY-SC	WY-Lincoln, Uinta	Green River and Washakie	Mature spruce-fir or spruce-fir/lodgepole pine forests interspersed with meadows.
<i>Ammodramus bairdii</i>	Baird's sparrow	BLM	WY-SC	WY-Uinta	Green River	Prairies, open grasslands, and overgrown fields. Nesting occurs in ungrazed or lightly grazed mixed-grass prairies.
<i>Ammodramus savannarum</i>	Grasshopper sparrow	NL	UT-SC	UT-Duchesne, Uintah, Utah, Wasatch	Uinta; Argyle Canyon, Asphalt Ridge, Pariette, P.R. Spring, Raven Ridge, Sunnyside	Grasslands, prairies, and grazed pastures. Breeds in grasslands with clumped vegetation and interspersed patches of bare ground.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Amphispiza belli</i>	Sage sparrow	BLM	NL	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Breeds in sagebrush shrublands. During migration, occurs in grasslands and other types of shrublands.
<i>Aphelocoma californica</i>	Western scrub-jay	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Oak, pinyon, and juniper scrub, brush, and riparian woodland.
<i>Asio flammeus</i>	Short-eared owl	BLM	UT-SC	UT-Carbon, Duchesne, Emery, Grand, Garfield, San Juan, Uintah, Wayne	Uinta; Asphalt Ridge, Pariette, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Large open areas with low vegetation, including marshes, prairies, grassy plains, old fields, river valleys, meadows, savanna, and open woodland. Generally nests on high ground or upland sites.
<i>Athene cunicularia</i>	Burrowing owl	BLM	CO-T, UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Open grasslands; nests and roosts in burrows dug by mammals.
<i>Baeolophus ridgwayi</i>	Juniper titmouse	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Pinyon-juniper woodland.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Botaurus lentiginosus</i>	American bittern	NL	WY-SC	WY-Lincoln, Sweetwater, Uinta	Green River, Washakie	Breeds primarily in large freshwater marshes, including lake and pond edges where cattails, sedges, or bulrushes are plentiful, and marshes where there are patches of open water and aquatic-bed vegetation.
<i>Bucephala islandica</i>	Barrow's goldeneye	BLM	NL	CO-Garfield, Rio Blanco	Piceance	In winter, on reservoirs and rivers; in summer, on mountain reservoirs and ponds in forested areas.
<i>Buteo regalis</i>	Ferruginous hawk	BLM	CO-SC, UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Grasslands and semidesert shrublands; is rare in pinyon-juniper woodlands. In winter, near prairie dog towns. Migrants and winter residents may also occur in shrublands and agricultural areas.
<i>Calcarius mccownii</i>	McCown's longspur	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Sparse short-grass plains, plowed and stubble fields, and areas of bare or nearly bare ground. Nests on the ground, often on high, barren hillsides with southern exposures.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Centrocercus minimus</i>	Gunnison sage-grouse	ESA-C	UT-SC	UT-Grand, San Juan	P.R. Spring, White Canyon STSA	Sagebrush shrublands. In summer, also found in native or cultivated meadows, grasslands, aspen, and willow thickets adjacent to or interspersed with sagebrush.
<i>Centrocercus urophasianus</i>	Greater sage-grouse	ESA-C, BLM	CO-SC, UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, and Sunnyside STSAs	Sagebrush shrublands. In summer, also found in native or cultivated meadows, grasslands, aspen, and willow thickets adjacent to or interspersed with sagebrush.
<i>Charadrius montanus</i>	Mountain plover	BLM	CO-SC, UT-SC, WY-SC	CO-Rio Blanco; WY-Lincoln, Sublette, Sweetwater	Green River, Piceance, and Washakie	Casual migrant in valley areas of Colorado. In Wyoming, breeds in flat open areas such as alkali flats, prairie dog towns, tablelands, agricultural fields, and heavily grazed sites.
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	ESA-C, BLM	WY-SC	UT-Duchesne, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; Asphalt Ridge STSA	Lowland riparian forest.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Cygnus buccinator</i>	Trumpeter swan	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater	Green River and Washakie	Ponds, lakes, and marshes and breeds in areas of reeds, sedges, or similar emergent vegetation.
<i>Cypseloides niger</i>	Black swift	BLM	CO-SC, UT-SC	CO-Garfield, Rio Blanco; UT-Duchesne, Uintah	Piceance and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and Raven Ridge STSAs	Nests on cliffs near or behind waterfalls. Foraging birds occur at high elevations over montane and adjacent lowland habitats.
<i>Dolichonyx oryzivorus</i>	Bobolink	BLM	UT-SC	UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; all STSAs	Breeds in tall grass areas, flooded meadows, prairies, deep cultivated grain fields, and hayfields with dense vegetation. During migration, found in rice fields, marshes, and open woody areas.
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	ESA-E	NL	UT-Carbon, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; P.R. Spring, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Nests in riparian corridors, islands, and sandbars vegetated with willow, tamarisk, or other shrubs.
<i>Falco peregrinus anatum</i>	American peregrine falcon	BLM	CO-SC	CO-Garfield, Rio Blanco; WY-Sublette, Sweetwater	Green River, Piceance, and Washakie	Nests on cliffs and forages over adjacent coniferous and riparian forests. Migrants and winter residents occur mostly around reservoirs, rivers, and marshes but also may be seen in grasslands, agricultural areas, and other habitats.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Gavia immer</i>	Common loon	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Breeds in clear-water lakes containing both shallow and deepwater areas and shoreline or island nest sites. Occurs on inland lakes and rivers during migration.
<i>Grus americana</i>	Whooping crane	ESA-XN	CO-E	CO-Garfield, Rio Blanco	Piceance	Rare migrant in valleys, where it occurs on mudflats around reservoirs and in agricultural areas.
<i>Grus canadensis tabida</i>	Greater sandhill crane	NL	CO-SC	CO-Garfield, Rio Blanco	Piceance	Migrants occur on mudflats around reservoirs, moist meadows, and agricultural areas. Breeds in open areas with grassy hummocks and watercourses, beaver ponds, and natural ponds lined with willows or aspens.
<i>Gymnogyps californianus</i>	California condor	ESA-E	NL	UT-Grand	Tar Sand Triangle and White Canyon STSAs	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. Roosts in snags or tall open-branched trees near important foraging grounds.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Haliaeetus leucocephalus</i>	Bald eagle	BLM	CO-T, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Near reservoirs and large rivers. In winter, they may also occur locally in semideserts and grasslands, especially near prairie dog towns.
<i>Icterus parisorum</i>	Scott's oriole	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Pinyon-juniper and arid oak scrub on foothills, desert slopes of mountains, and more elevated semiarid plains.
<i>Lanius ludovicianus</i>	Loggerhead shrike	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Breeds in open country with scattered trees and shrubs, savanna, desert scrub, and, occasionally, open woodland.
<i>Melanerpes lewis</i>	Lewis's woodpecker	BLM	UT-SC; WY-SC	UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Uinta	Green River and Uinta; all STSAs	Lowland and foothill riparian forests, agricultural areas, and urban areas with tall deciduous trees.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Numenius americanus</i>	Long-billed curlew	BLM	CO-SC, UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, Uinta, and Washakie; all STSAs	Short-grass prairie, wheat fields, and fallow fields. Nests are usually close to standing water. Migrants occur on shorelines and in meadows and fields.
<i>Oreoscoptes montanus</i>	Sage thrasher	BLM	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Shrublands, scrublands, and thickets. Breeds in sagebrush plains, primarily in arid or semiarid situations.
<i>Pelecanus erythrorhynchos</i>	American white pelican	BLM	UT-SC	CO-Garfield, UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Piceance and Uinta; all STSAs	Large reservoirs with breeding sites on islands. Is a migrant in the study area.
<i>Picoides arcticus</i>	Black-backed woodpecker	NL	WY-SC	WY-Lincoln	Green River	Boreal and montane coniferous forests, especially in areas with standing dead trees such as burns, bogs, and windfalls; less frequently in mixed forest; rarely, in winter, in deciduous woodland.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Picoides tridactylus</i>	Three-toed woodpecker	BLM	UT-SC	UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; Argyle Canyon, Hill Creek, P.R. Spring, Sunnyside, Tar Sand Triangle, and White Canyon STSAs	Dense coniferous forests; associated with fir and spruce at higher elevations; mainly in lodgepole pine forests or in mixed-conifer forests at lower elevations.
<i>Plegadis chihi</i>	White-faced ibis	BLM	WY-SC	CO-Garfield, Rio Blanco; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Piceance, and Washakie	Migrant and summer visitor to wet meadows, marsh edges, and reservoir shorelines.
<i>Psaltriparus minimus</i>	Bushtit	NL	WY-SC	WY-Sweetwater, Uinta	Green River and Washakie	Woodlands and scrub habitat with scattered trees and shrubs, brushy streambanks, pinyon-juniper, and pine-oak associations.
<i>Sitta pygmaea</i>	Pygmy nuthatch	NL	WY-SC	WY-Lincoln, Sublette	Green River	Pine forest and woodland, especially ponderosa pine; less frequently in pinyon-juniper woodland.
<i>Sphyrapicus thyroideus</i>	Williamson's sapsucker	NL	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Montane coniferous forests, especially fir and lodgepole pine.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Birds (Cont.)						
<i>Spizella breweri</i>	Brewer's sparrow	BLM	WY-SC	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Sagebrush, grasslands, and shrublands. Breeding habitat is strongly associated with low sagebrush.
<i>Sterna caspia</i>	Caspian tern	NL	WY-SC	WY-Lincoln	Green River	Breeds on sandy or gravelly beaches and shell banks of large inland lakes.
<i>Sterna forsteri</i>	Forster's tern	NL	WY-SC	WY-Lincoln	Green River	Nests on inland lakes and marshes.
<i>Strix occidentalis lucida</i>	Mexican spotted owl	ESA-T	NL	UT-Emery, Garfield, Grand, San Juan, Uintah, Wayne	Uinta; Raven Ridge, Tar Sand Triangle, and White Canyon STSAs	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.
<i>Tympanuchus phasianellus columbianus</i>	Columbian sharp-tailed grouse	BLM	CO-SC	CO-Garfield, Rio Blanco	Piceance	Gambel oak and serviceberry shrublands, often interspersed with sagebrush shrublands, aspen forests, wheat fields, and irrigated meadows and alfalfa fields. Display grounds are on knolls or ridges.
Mammals						
<i>Antrozous pallidus</i>	Pallid bat	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Arid deserts and grasslands, often near rocky outcrops and water.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Mammals (Cont.)						
<i>Brachylagus idahoensis</i>	Pygmy rabbit	BLM	UT-SC, WY-SC	UT-Garfield, Wayne; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie; Tar Sand Triangle STSA	Dense stands of big sagebrush growing in deep loose soils.
<i>Corynorhinus townsendii pallescens</i>	Townsend's big-eared bat	BLM	CO-SC, UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne; WY-Sweetwater	Green River, Piceance, Uinta, and Washakie; all STSAs	Semidesert shrublands, pinyon-juniper woodlands, and open montane forests.
<i>Cynomys gunnisoni</i>	Gunnison's prairie dog	ESA-C; BLM	UT-SC	UT-Grand, San Juan	P.R. Spring and White Canyon STSA	High mountain valleys and plateaus (elevations between 1,830 and 3,660 m) that are open or are sparsely vegetated with shrubs, junipers, or pines.
<i>Cynomys leucurus</i>	White-tailed prairie dog	BLM	UT-SC, WY-SC	UT-Carbon, Duchesne, Emery, Grand, Uintah; WY-Lincoln, Sublette, Sweetwater, Uinta	Green River, Uinta, and Washakie; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, and San Rafael STSAs	Open shrublands, semidesert grasslands, and mountain valleys. Occasionally invades pastures and agricultural lands at lower elevations.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Mammals (Cont.)						
<i>Cynomys parvidens</i>	Utah prairie dog	ESA-T	NL	UT-Garfield, Wayne	None	Grasslands in level mountain valleys in areas with deep, well-drained soil and vegetation that prairie dogs can see over or through.
<i>Euderma maculatum</i>	Spotted bat	BLM	UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Duchesne, Garfield, Grand, San Juan, Uintah, Wayne; WY-Sweetwater	Green River, Piceance, Uinta, and Washakie; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Ponderosa pine of montane forests, pinyon-juniper woodlands, and open semidesert shrublands. Roosts occur in rocky cliffs with access to water.
<i>Gulo gulo</i>	Wolverine	NL	CO-E, WY-SC	CO-Garfield, Rio Blanco; WY-Lincoln, Sublette	Green River and Piceance	Boreal forests and tundra.
<i>Idionycteris phyllotis</i>	Allen's big-eared bat	BLM	UT-SC	UT-Garfield, Grand, San Juan, Wayne	P.R. Spring, Tar Sand Triangle, and White Canyon STSAs	Mountainous areas near cliffs and boulders and in pine-oak, coniferous forests, or riparian woods. Forages over streams and ponds.
<i>Lasiurus blossevillii</i>	Western red bat	BLM	UT-SC	UT-Carbon, Emery, Grand, Garfield, San Juan, Wayne	P.R. Spring, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Riparian habitats dominated by cottonwoods, oaks, sycamores, and walnuts; rarely found in desert habitats.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Mammals (Cont.)						
<i>Lynx canadensis</i>	Canada lynx	ESA-T	CO-E, WY-SC	CO-Garfield, Rio Blanco; UT-Emery, Uintah; WY-Lincoln, Sublette, Uinta	Green River, Piceance, and Uinta; Asphalt Ridge STSA	Northern coniferous forests. Uneven-aged stands with relatively open canopies and well-developed understories are ideal.
<i>Microtus mogollonensis</i>	Mogollon vole	BLM	UT-SC	UT-San Juan	None	Mountain meadows, grassy openings in woodland.
<i>Microtus richardsoni</i>	Water vole	NL	WY-SC	WY-Lincoln, Sublette, Uinta	Green River	Subalpine and alpine meadows close to water, especially swift, clear, spring-fed or glacial streams with gravel bottoms.
<i>Mustela nigripes</i>	Black-footed ferret	ESA-XN	CO-E	CO-Rio Blanco; UT-Carbon, Duchesne, Emery, Grand, San Juan, Uintah; WY-Sublette, Sweetwater	Green River, Piceance, Uinta, and Washakie; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, and Sunnyside STSAs	Historically occupied areas ranging from the shortgrass and midgrass prairie to semidesert shrublands.
<i>Myotis evotis</i>	Long-eared myotis	BLM	NL	WY-Lincoln, Sublette, Sweetwater, Uinta	Green River and Washakie	Conifer and deciduous forests, caves, and mines.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Mammals (Cont.)						
<i>Myotis thysanodes</i>	Fringed myotis	BLM	UT-SC, WY-SC	CO-Garfield, Rio Blanco; UT-Duchesne, Garfield, Grand, San Juan, Uintah, Wayne; WY-Sublette	Green River, Piceance, and Uinta; Argyle Canyon, Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, Tar Sand Triangle, and White Canyon STSAs	Ponderosa pine woodlands, greasewood, oakbrush, and saltbush shrublands.
<i>Nyctinomops macrotis</i>	Big free-tailed bat	BLM	UT-SC	CO-Garfield; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Piceance and Uinta; Asphalt Ridge, Hill Creek, Pariette, P.R. Spring, Raven Ridge, San Rafael, Tar Sand Triangle, and White Canyon STSAs	Roosts in crevices on cliff faces or in buildings.
<i>Perognathus flavus</i>	Silky pocket mouse	BLM	UT-SC	UT-San Juan	None	Sandy soils in arid grasslands, shrublands, and pinyon-juniper woodland, in valley bottoms, hillsides, and mesas.
<i>Peromyscus crinitus</i>	Canyon mouse	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Rocky habitats: gravelly desert pavement, talus, boulders, cliffs, and slickrock.
<i>Peromyscus truei</i>	Pinon mouse	NL	WY-SC	WY-Sweetwater	Green River and Washakie	Among rocks or on rocky slopes in a variety of habitats, including pinyon-juniper woodlands, desert scrub, limestone cliffs, and riparian woodlands.
<i>Sorex preblei</i>	Preble's shrew	NL	WY-SC	WY-Lincoln, Uinta	Green River	Arid and semiarid shrub-grass communities.

TABLE E-1 (Cont.)

Scientific Name	Common Name	Federal Status ^a	State Status ^b	States and Counties in Which Species Could Occur ^c	Oil Shale Basins and Special Tar Sand Areas in Which Species Could Occur ^d	Habitat
Mammals (Cont.)						
<i>Tamias dorsalis utahensis</i>	Cliff chipmunk	NL	WY-SC	WY-Sweetwater	Green River	Rocky outcrops, steep hillsides; only recorded presence in Wyoming is in the vicinity of Flaming Gorge.
<i>Thomomys clusius</i>	Wyoming pocket gopher	BLM	NL	WY-Sweetwater	Green River and Washakie	Well-drained, often gravelly soils of ridge tops and edges of deeply eroded stream-cut washes, and shrubland habitats.
<i>Thomomys idahoensis</i>	Idaho pocket gopher	BLM	WY-SC	WY-Lincoln, Sublette, Uinta	Green River	Open sagebrush, grasslands, and subalpine mountain meadows with relatively shallow stony soils.
<i>Vulpes macrotis</i>	Kit fox	BLM	CO-E, UT-SC	CO-Garfield, Rio Blanco; UT-Carbon, Duchesne, Emery, Garfield, Grand, San Juan, Uintah, Wayne	Piceance and Uinta; all STSAs	Semidesert shrubland and margins of pinyon-juniper woodlands.
<i>Vulpes velox</i>	Swift fox	BLM	WY-SC	WY-Sweetwater	Green River and Washakie	Open flat prairies and plains with flat to rolling terrain and sparse vegetation.

Footnotes on following page.

TABLE E-1 (Cont.)

- a Federal listings: BLM = listed by the BLM as sensitive; C = candidate for listing; E = listed as endangered; ESA = Endangered Species Act; PT = proposed for listing as threatened; T = listed as threatened; XN = experimental population, nonessential.
- b State listings: CO = Colorado; E = listed as endangered; SC = listed as species of special concern; T = listed as threatened; UT = Utah; WY = Wyoming.
- c States and counties within species range in which species is listed and oil shale or tar sands projects could occur.
- d Oil shale basins or tar sands areas in which species could occur based on published distributions.
- e NL = not listed.

Sources: Goodrich and Neese (1986); UDWR (1998, 2006, 2007); Colorado Rare Plant Technical Committee (1999); Keinath et al. (2003); CDOW (2006); NatureServe (2006); University of Wyoming (2006); Flora of North America (2007); Natural Resources Conservation Service (2007); Utah State University (2007a,b).

1 REFERENCES

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3 *Note to Reader:* This list of references identifies Web pages and associated URLs where
4 reference data were obtained. It is likely that at the time of publication of this PEIS, some of
5 these Web pages may no longer be available or their URL addresses may have changed.
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