APPENDIX B

SUMMARY OF SURFACE WATER QUALITY DATA FOR THE GREEN RIVER, WHITE RIVER, AND COYOTE WASH

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Parameter	Number of Samples	Minimum	Maximum	Mean
Field Parameters				
Dissolved oxygen (DO) (mg/L)	8	6.81	11.7	9.3
Dissolved oxygen saturation (%)	7	78.6	102.8	92.4
pH (Standard Units)	16	7.77	8.59	8.3
Temperature (degrees Centigrade)	8	0.13	29.26	10.2
Turbidity (NTU)	8	7.86	225	79.1
Specific conductivity (umhos/cm)	16	342	722	560.4
Major Ions				÷
Alkalinity, Carbonate as CaCO3 (mg/l)	8	94	175	144
Carbon dioxide (mg/L)	8	1	4	1.90
Chloride (mg/L)	8	ND	27.6	19.1
Bicarbonate (mg/L)	8	114	214	176
Sulfate (mg/L)	8	73.7	615	201
Potassium (mg/L)	8	1.81	3.14	2.50
Magnesium (mg/L)	8	12.7	25.9	22.0
Sodium (mg/L)	8	23.9	58.4	46.7
Calcium (mg/L)	8	34.4	62.5	52.5
General Water Quality Indicators			•	
Hardness (mg/L)	8	138.1	258.2	222
Salinity (ppt)	7	0.18	0.4	0.30
Total Dissolved Solids (mg/L)	8	232	490	393
Total Suspended Solids (mg/L)	8	10	386	152
Nutrients			•	
Ammonia (mg/L)	5	ND	ND	ND
Phosphorus (mg/L)	13	ND	0.319	0.1
Trace Metals			•	
Aluminum (ug/L)	5	ND	162	78.4
Arsenic (ug/L)	5	ND	ND	ND
Barium (ug/L)	5	72	156	89.8
Cadmium (ug/L)	5	ND	ND	ND
Chromium (ug/L)	5	ND	5.2	1.7
Copper (ug/L)	5	ND	ND	ND
Iron (ug/L)	5	ND	96.7	56.0
Lead (ug/L)	5	ND	ND	ND
Manganese (ug/L)	5	ND	5	1.0
Mercury (ug/L)	5	ND	ND	ND
Selenium (ug/L)	5	1	1.8	1.4
Silver (ug/L)	5	ND	ND	ND
Zinc (ug/L)	5	ND	30.5	6.1

 Table B-1. Green River Water Quality Summary: November 2000- December 2001

 State of Utah Station Number 49370

ND - not detected

ug/L - micrograms per liter mg/L - milligrams per liter

Number of Minimum Parameter Maximum Mean Samples **Field Parameters** Dissolved oxygen (mg/L) 14 5.51 12.31 9.0 Dissolved oxygen saturation (%) 13 77.4 145.1 95.8 pH (Std. Units) 27 8.1 8.66 8.35 14 Temperature (deg C) 0.02 27.61 12.6 Turbidity (NTU) 14 20.8 9970 825 Specific conductivity (umhos/cm) 27 249.7 1010 748 Major lons Alkalinity, Carbonate as CaCO3 (mg/L) 225 14 123 194 Carbon dioxide (mg/L) 14 1 3 1.80 27 Chloride (mg/L) 15 0 15.6 Bicarbonate (mg/L) 14 150 274 236 14 Sulfate (mg/L) 59.6 312 225 Potassium (mg/L) 14 1.51 3.63 2.1 Magnesium (mg/L) 14 14.4 42.8 30.2 14 Sodium (ma/L) 19.5 104 75.1 Calcium (mg/L) 14 41.6 73.9 61.6 **General Water Quality Indicators** Hardness (mg/L) 13 214.2 358.7 286 Salinity (ppt) 13 0.12 0.5 0.4 Total Dissolved Solids (mg/L) 14 248 542 692 Total Suspended Solids (mg/L) 14 25.5 914 258 **Nutrient**s Nitrite + Nitrate (mg/L) 14 0.1 0.45 0.23 Phosphorus (mg/L) 15 0.021 0.676 0.25 Trace Metals Aluminum (ug/L) 4 ND 151 65.8 Arsenic (ug/L) 1 ND ND ND Barium (ug/L) 10 55 115 78.8 Cadmium (ug/L) 1 ND ND ND 1 Copper (ug/L) ND ND ND Iron (ug/L) 5 30.1 207 74.1 1 ND Lead (ug/L) ND ND 2 7 Manganese (ug/L) ND 3.5 8 Selenium (ug/L) 1.0 1.8 1.3 1 Silver (ug/L) ND ND ND

 Table B-2. White River Water Quality Summary: November 2000 - December 2001

 State of Utah Station Number 493362

ND - not detected

ug/L - micrograms per liter

mg/L - milligrams per liter

Parameter	Number of Samples	Minimum	Maximum	Mean		
Field Parameters						
Dissolved oxygen (mg/L)	116	6.2	16.7	9.56		
pH (Std. Units)	136	7.7	9.0	8.40		
Temperature (deg C)	154	-0.5	30.2	11.6		
Specific conductivity (umhos/cm)	139	309	1150	737		
Major lons						
Alkalinity, Carbonate as CaCO3 (mg/L)	132	204	797	492		
Chloride (mg/L)	108	0.1	28.7	15.0		
Sulfate (mg/L)	108	56.0	350	202		
Potassium (mg/L)	108	1.1	4.3	2.0		
Magnesium (mg/L)	108	12.0	49.0	29.2		
Sodium (mg/L)	108	13.0	110	54.7		
Calcium (mg/L)	108	38.0	87.0	66.2		
Nutrients						
Ammonia (mg/L)	111	0.01	0.15	0.03		
Trace Metals						
Arsenic (ug/L)	1	ND	ND	ND		
Barium (ug/L)	1	100	100	100		
Cadmium (ug/L)	1	ND	ND	ND		
Copper (ug/L)	1	ND	ND	ND		
Iron (ug/L)	1	ND	ND	ND		
Lead (ug/L)	1	ND	ND	ND		
Silver (ug/L)	1	ND	ND	ND		
Zinc (ug/L)	1	205	205	205		

 Table B-3. White River Water Quality Summary: October 1947 – September 1966

 USGS Station Number 09306500

ND - not detected

ug/L - micrograms per liter mg/L - milligrams per liter

Parameter	Number of Samples	Minimum	Maximum	Mean		
General Water Quality Parameters						
Dissolved oxygen (mg/L)	5	6.0	10.1	8.24		
Temperature (deg C)	32	0	27.0	14.6		
Specific conductivity (umhos/cm)	13	330	1020	471		
Hardness	11	6.0	53.0	20.6		
Major lons						
Chloride (mg/L)	12	2.2	18.0	8.65		
Sulfate (mg/L)	12	9.7	150	38.9		
Potassium (mg/L)	12	0.7	3.7	1.88		
Magnesium (mg/L)	12	0.5	2.6	1.13		
Sodium (mg/L)	12	29	190	90.4		
Calcium (mg/L)	12	1.3	17	6.16		
Nutrients						
Ammonia (mg/L)	111	0.01	0.15	0.03		
Trace Metals						
Iron (ug/L)	11	40	2000	492		

 Table B-4. Coyote Wash Water Quality Summary: October 1976 – October 1983

 USGS Station Number 09306878

ug/L - micrograms per liter mg/L - milligrams per lit

APPENDIX C

SPECIAL STATUS SPECIES CHECKLIST

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SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
Plant Species			
Arabis vivariensis park rock cress	Sensitive	Webber Sandstone- Sandstone and limestone outcrops in mixed desert shrub and pinyon-juniper communities. 5000-6000ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formation and soils associated with this species do not occur in the project area.
Astragalus equisolensis horseshoe milkvetch	Candidate	Duchesne River Formation soils in sagebrush, shadscale, horsebrush and mixed desert shrub communities, 4,790-5,185ft. The species is endemic to a single location in central Uintah County (UDWR 2004a).	None: No suitable habitat. The CWSA is within the Uinta Formation. Exposures of the Brennan Basin member of the Duchesne River Formation occur as horizontal bands in the badlands erosion areas. The soils associated with this species do not occur in the project area.
Astragalus hamiltonii Hamilton milkvetch	Sensitive	Lapoint and Dry Gulch members of the Duchesne River Formation, Mowry Shale, Dakota Sandstone and the Wasatch Formation soils in pinyon-juniper and desert shrub communities. 5240-5800ft	None: No suitable habitat. The CWSA is within the Uinta Formation. Exposures of the Brennan Basin member of the Duchesne River Formation occur as horizontal bands in the badlands erosion areas. The soils associated with this species do not occur in the project area.
<i>Cirsium ownbeyi</i> Ownbey thistle	Sensitive	East flank Uinta Mountains. In mesic sites within canyons in mixed sagebrush, juniper and riparian communities. 5500-6200ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formations and soils associated with this species do not occur in the project area.
<i>Hymenoxys lapidicola</i> Rock hymenoxis	Sensitive	Sandy soils on ledges and soil filled crevices in the Weber Formation associated with Blue Mountain. (5700-8100 feet).	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formation and soils associated with this species do not occur in the project area.
Penstemon acaulis stemless penstemon	Sensitive	Daggett County. Semi-barren substrates in the Browns Park Formation. Pinyon-juniper and sagebrush-grass communities. 5840-7285 ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formation and soils associated with this species do not occur in the project area.
Penstemon flowersii Flowers penstemon	Sensitive	Clay badlands from Myton to Roosevelt and Randlett, in shadscale and desert communities. 5000-5400ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The formations and soils associated with this species do not occur in the project area. This species is found within isolated geographic areas (Myton to Roosevelt and Randlett) outside of the CWSA. The closest known population occurs approximately 22 miles northwest of the CWSA.

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
Penstemon gibbensii Gibbens penstemon	Sensitive	Brown's Park in Daggett County. Sandy and shaley (Green River Shales) bluffs and slopes with juniper, thistle, Eriogonum, Elymus, serviceberry, rabbit brush & Thermopsis spp. 5500-6400 ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The White River shales and soils associated with this species do not occur in the project area.
Penstemon goodrichii Goodrich penstemon	Sensitive	Lapoint-Tridell-Whiterocks area. Lapoint and Dry Gulch members of the Duchesne River Formation on blue gray to reddish bands of clay badlands. Elevations 5590 to 6215 ft.	None: No suitable habitat. The formations and soils associated with this species do not occur in the project area. This species is found within isolated geographic areas (Lapoint-Tridell-Whiterocks area) approximately 25 north of the CWSA.
Penstemon grahamii Graham beardtongue	Candidate	East Duchesne and Uintah Counties. Evacuation Creek and Parachute Creek member of the Green River Shale. Shaley knolls in sparsely vegetated desert shrub and pinyon-juniper communities. 4600-6700 ft	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formation and soils associated with this species do not occur in the project area.
Penstemon scariosus var. albifluvis White River penstemon	Candidate	Evacuation Creek and Parachute Creek member of the Green River Shale on sparsely vegetated shale slopes in mixed desert shrub and pinyon- juniper communities. 5000-6000ft	None: No suitable habitat. The CWSA is within the Uinta Formation. The geological formations and soils associated with this species do not occur in the project area.
Schoencrambe argillaceas Clay thelopody	Threatened	Bookcliffs On the contact zone between the upper Uinta and Green River Shale in mixed desert shrub of Indian ricegrass and pygmy sagebrush.5000-5650 ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The Green River Formation and soils associated with this species do not occur in the project area.
Schoencrambe suffrutescens Shrubby reed-mustard	Endangered	Evacuation Creek and lower Parachute Creek Members of the White River Formation on calcareous shales in pygmy sagebrush, mountain mahogany, juniper and mixed desert shrub communities. 5400-6000ft.	None: No suitable habitat. The CWSA is within the Uinta Formation. The White River geological formation and soils associated with this species do not occur in the project area.
<i>Sclerocactus wetlandicus</i> Uinta Basin hookless cactus	Threatened	Gravelly hills and terraces on Quaternary and tertiary bedrock soils in cold desert shrub communities. 4700-6000ft.	High: Potential habitat for the species is found along the White River corridor, primarily in the southwest portion of the CWSA. This species has not been identified in the CWSA; however, the two known occurrences are located less than ½-mile from the CWSA boundary. No new well pads or roads would be constructed within the White River Corridor.

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
<i>Spiranthes diluvialis</i> Ute ladies'-tresses	Threatened	Streams, bogs and open seepages in cottonwood, salt cedar, willow and pinyon- juniper communities on the south and east slope of the Uintah Range and it's tributaries, and the White River from Browns Park to Split mountain. Potentially in the Upper reaches of streams in the Book Cliffs. 4400-6810ft.	Low: The Ute ladies'-tresses has not been identified in the CWSA, and has not been identified in the greater Book Cliffs RMP planning area. However, marginally potential habitat for this species is present within the riparian corridors of the White River. No new well pads or access roads would be constructed within the White River Corridor.
Fish			
Humpback chub Gila cypha	Endangered	Endemic to the Colorado River system within deep, swift-running rivers, with canyon shaded environments.	Low: This species occurs in the Green River downstream of the proposed project area.
Bonytail <i>Gila elegans</i>	Endangered	Endemic to the Colorado River system, restricted to the Green River. They use main channels of large rivers and favor swift currents.	Low: This species occurs in the Green River downstream of the proposed project area
Colorado pikeminnow Ptychocheilus lucius	Endangered	Endemic to the Colorado River system. Uses large swift rivers.	Low: This species occurs in the Green River downstream of the proposed project area.
Razorback sucker Xyrauchen texanus	Endangered	Endemic to large rivers of the Colorado River system.	Low: This species occurs in the Green River downstream of the project area.
Colorado River cutthroat trout Oncorhynchus clarki pleuriticus	Sensitive	Cool, clear water, high-elevation streams and lakes.	None: No perennial stream habitat or lakes in the project area.
Roundtail chub Gila robusta	State Threatened	Adults inhabit low to high flow areas in the Green River; young occur in shallow areas with minimal flow.	Low: No perennial streams flow in the project area.
Bluehead sucker Catostomus discobolus	Sensitive	Occupies a wide range of aquatic habitats ranging from cold, clear mountain streams to warm, turbid rivers.	Low: No perennial streams flow in the project area.
Flannelmouth sucker Catostomus latipinnis	Sensitive	Adults occur in riffles, runs, and pools in streams and large rivers, with the highest densities usually in pool habitat. Young live in slow to moderately swift waters near the shoreline areas.	Low: No perennial streams flow in the project area.
Birds	•		
Bald eagle Haliaeetus Ieucocephalus	Threatened	In Utah, breeding occurrences are limited to five locations within four counties (Carbon, Daggett, Grand, and Salt Lake counties). Winter habitat typically includes areas of open water, adequate	Moderate: Bald eagles utilize ungulate winter ranges that provide carrion. Bald eagles are sometimes seen near the project area during winter months, usually in early November through late March

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
		food sources, and sufficient diurnal perches and night roosts.	
Mexican spotted owl Strix occidentalis lucida	Threatened; PIF	Found primarily in canyons with mixed conifer forests, pine-oak woodlands and riparian areas. This species nests on platforms and large cavities in trees, on ledges, and in caves. Breeding and nesting season: approximately March through August.	None: The CWSA is north of the species known distribution in Utah (Willey 1995), and northeast of designated critical habitat in Carbon, Emery and Uintah counties. Furthermore, the CWSA does not provide suitable nesting habitat for the species.
Western yellow-billed cuckoo Coccyzus americanus occidentalis	Candidate	Riparian obligate and usually occurs in large tracts of cottonwood/willow habitats. However, this species also has been documented in lowland deciduous woodlands, alder thickets, deserted farmlands, and orchards. Breeding season: late June through July.	Moderate: This species has the potential to occur in the project area.
Ferruginous hawk <i>Buteo Regalis</i>	State Threatened	Resides mainly in lowland open desert terrain characterized by barren cliffs and bluffs, piñon- juniper woodlands, sagebrush-rabbit brush, and cold desert shrub. Nesting habitat includes promontory points and rocky outcrops.	High: This species is known to occur in the West Desert and the Uinta Basin as a summer resident and a common migrant. One active ferruginous hawk nest has been documented within the project area.
American peregrine falcon <i>Falco peregrinus</i>	State Endangered	Breeds in Utah on Colorado Plateau and Great Basin. Nesting peregrines prefer high cliffs in close proximity to water, where riparian and wetland areas provide suitable foraging habitat.	Low: No peregrine falcon nests have been documented in the CWSA, and species occurrence is not likely due to the absence of nesting habitat. Based on this information, the alternatives would not affect the peregrine falcon and the species is therefore, not discussed further in this EIS.
American white pelican Pelecanus erythrorhynchos	Sensitive	Inhabits areas of open water including large rivers, lakes, ponds, and reservoirs with surrounding habitats ranging from barren to heavily vegetated sites. Typically nests on isolated islands in lakes or reservoirs; rarely nests on peninsulas.	None: In Utah, the species is known to nest on islands associated with Great Salt and Utah lakes. In northeastern Utah, the species occurs as a transient on larger water bodies.
Swainson's hawk Buteo swainsoni	Sensitive	Inhabits grasslands, deserts, agricultural areas, shrublands, and riparian forests. Breeding birds nest in trees in or near open areas. In Utah, the species also occurs in marshlands; rarely occurs in brushy areas or scrub desert.	Low: This species occurs in the Uinta Basin as an uncommon summer resident and common migrant. It requires trees of moderate height for nesting. No Swainson's hawk nests have been documented within the project area.
Northern goshawk	SSC	Nests in higher elevations in mature conifer forests, aspen stands, and along valley cottonwood habitats. Winter habitat includes the	Low: Occurrence would be sporadic and limited to areas along the White River. Based on protective measures limiting activities along the river corridor, and the limited

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
		lower elevation pinyon-juniper woodlands.	potential for the goshawk to occur in the CWSA, the alternatives are not likely to affect the species and the Northern goshawk is not discussed further in this EIS.
Greater sage-grouse Centrocercus urophasianus	Sensitive; PIF	Inhabits upland sagebrush habitat in rolling hills and benches. Breeding occurs on open leks (or strutting grounds) and nesting and brooding occurs in upland areas and meadows in proximity to water and generally within a 2-mile radius of the lek. During winter, sagebrush habitats at submontane elevations commonly are used.	High: The species is widespread, but declining, with populations in Uintah and Daggett counties. Leks occur in the project area.
Mountain plover Charadrius montanus	Sensitive; PIF	In the Uinta Basin, small mountain plover populations breed in shrub-steppe habitat where vegetation is sparse and sagebrush communities are dominated by <i>Artemisia</i> spp. with components of black sage and grasses. Nest locations also vary with respect to topography (nests were located on flat, open ground; on the top or at the base of slopes; or very close to large rocky outcroppings).	None: The only known breeding population of mountain plover in Utah is located on Myton Bench. A historic sighting was identified in the Pelican Lake area in 19. No other sightings have been documented since that time. Potential habitat does not occur in the project area.
Long-billed curlew Numenius americanus	Sensitive	Inhabits shortgrass prairies, alpine meadows, riparian woodlands, and reservoir habitats. Breeding habitat includes upland areas of shortgrass prairie or grassy meadows with bare ground components, usually near water.	None: Widespread migrant in Utah. Breeding birds are fairly common but localized, primarily in central and northwestern Utah. Potential nesting has been reported in Uintah County, but has not been confirmed. Habitat does not occur in the project area.
Black tern Chlidonias niger	Sensitive	Habitat includes reservoirs, lakes, ponds, marshes with open water, and sewage lagoons in association with tall tules, reeds, or other vegetation along the edge of water bodies. Nests typically are floating and are made from pieces of cattail and other marsh vegetation.	None: This species is a localized breeder in Utah at Utah, Great Salt, and Pelican lakes and along the Green River. In Uintah County, the species is known to nest on sandbars in and along the Green River. Habitat does not occur in the project area.
Short-eared owl Asio flammeus	Sensitive	Inhabits arid grasslands, agricultural areas, marshes, and occasionally open woodlands. In Utah, cold desert shrub and sagebrush-rabbit brush habitats also are utilized. Typically a ground nester.	None: The species breeds in northern Utah and occurs as a migrant potentially throughout the state. It is known to occur in Uintah County, with occurrence probable in Duchesne County. Habitat for this species does not occur in the project area.
Burrowing owl Athene cunicularia	Sensitive	Inhabits desert, semi-desert shrubland, grasslands, and agricultural areas. Nesting habitat primarily consists of flat, dry, and	None: Burrowing owls nest in desert/grassland habitats and are found in close association with prairie dog colonies in Northeastern Utah. Habitat for this species does not occur in

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
		relatively open terrain; short vegetation; and abandoned mammal burrows for nesting and shelter.	the project area.
Lewis' woodpecker <i>Melanerpes lewis</i>	Sensitive; PIF	Inhabits open habitats including pine forests, riparian areas, and piñon-juniper woodlands. Breeding habitat typically includes ponderosa pines and cottonwoods in stream bottoms and farm areas. The species inhabits agricultural lands and urban parks, montane and desert riparian woodlands, and submontane shrub habitats.	Low: In Utah, the species is widespread, but is an uncommon nester along the Green River. Breeding by this species has been observed in Ouray and Uintah counties, and along Pariette Wash.
Common yellowthroat Geothlypis trichas	Sensitive	Documented habitat usage includes marshes and wet hummocks as well as montane and desert riparian woodlands.	Low: Occurs throughout Utah, with probable occurrence in Uintah county. This species is known to breed at the Ouray National Wildlife refuge and along the Green River. Limited habitat for the species occurs along Willow Creek.
Blue grosbeak <i>Guiraca caerulea</i>	Sensitive	Inhabits desert riparian woodlands (including areas of tamarisk invasion), marshes, grasslands, and rural areas. Suitable nest habitat includes dense vegetation in otherwise open areas.	Low to None: Known to breed in the southern portion of Utah. However, this species has been documented at the Ouray National Wildlife Refuge and along the Green River.
Sage sparrow Amphispiza belli	PIF	Dry sagebrush/scrublands with sparse vegetation	High: Portions of the Project Area have suitable habitat for sage sparrows.
Bobolink Dolichonyx oryzivorus	Sensitive	Inhabits mesic and irrigated meadows, riparian woodlands, and subalpine marshes at lower elevations (2,800 to 5,500 feet amsl). Suitable breeding habitat for this ground nester includes tall grass, flooded meadows, prairies, and agricultural fields; forbs and perch sites also are required.	None: The species breeds in isolated areas of Utah, primarily in the northern half of the state. No breeding by this species has been documented within the proposed project area.
Mammals	i	1	
Black-footed ferret <i>Mustela nigripes</i>	Endangered	Semi-arid grasslands and mountain basins. It is found primarily in association with active prairie dog colonies that contain suitable burrow densities and colonies that are of sufficient size.	None: The distribution of this species is limited to a nonessential experimental population reintroduced into Coyote Basin, Uintah County starting in 1999.
Canada lynx <i>Lynx lynx Canadensis</i>	Threatened; Sensitive	Primarily occurs in Douglas-fir, spruce-fir, and subalpine forests at elevations above 7,800 feet amsl. The lynx uses large woody debris, such as downed logs and windfalls.	None: Existence in Utah would be limited to montane forests in the Uinta Mountains.

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
White-tailed prairie dog <i>Cynomys leucurus</i>	Sensitive	Inhabits grasslands, plateaus, plains and desert shrub habitats. White-tailed prairie dogs form colonies or "towns" and spend much of their time in underground burrows and hibernating during the winter.	None: Prairie dogs are an obligate species to several other state-sensitive species, such as ferruginous hawk, mountain plover, and burrowing owl, in that these species depend on them for food, shelter, nesting habitat or habitat manipulation.
Spotted bat Euderma maculatum	Sensitive	Inhabits desert shrub, sagebrush-rabbitbrush, piñon-juniper woodland, and ponderosa pine and montane forest habitats. The species also uses lowland riparian and montane grassland habitats. Suitable cliff habitat typically appears to be necessary for roosts/hibernacula. Spotted bats typically do not migrate and use hibernacula that maintain a constant temperature above freezing from September through May	Low to moderate: The species potentially occurs throughout Utah; however, no occurrence records exist for the extreme northern or western parts of the state. Known occurrences have been reported in northeastern Uintah County. Roosting habitat could occur in areas with cliff habitats.
Townsend's big-eared bat <i>Corynorhinus</i> <i>townsendii</i>	Sensitive	Inhabits a wide range of habitats from semi- desert shrublands and pinyon-juniper woodlands to open montane forests. Roosting occurs in mines and caves, in abandoned buildings, on rock cliffs, and occasionally in tree cavities. Foraging occurs well after dark over water, along margins of vegetation, and over sagebrush.	Low to Moderate: The species occurs in Duchesne and Uintah counties. Roosting habitat is not found in the CWSA. Foraging could occur over the White River, but foraging would not be affected by the alternatives.
Brazilian free-tailed bat <i>Tadarida brasiliensis</i>	Sensitive	Typically inhabits woodland to lowland areas where the species roosts in caves, crevices in cliff faces, buildings, and under bridges. This species inhabits urban areas, lowland riparian woodlands, desert shrub, and	Low to None: The species is known to occur in all but the northernmost parts of Utah (Box Elder and Daggett counties). Roosting habitat does not occur in the CWSA.
Big free-tailed Bat (<i>Nyctinomops macrotis</i>)	Sensitive	Rare summer resident of Utah, primarily in southern half of the State. Species prefers rocky and woodland habitats. Roosting occurs in caves, mines, old building, and rock crevices.	Low to None: Roosting habitat does not occur in the CWSA.
Northern river otter Lontra Canadensis	Sensitive	Inhabits rivers, lakes, and riverine habitats, with associated riparian vegetation. The species occurs in montane forests to desert canyons within areas of suitable habitat.	None: Habitat for this species does not occur in the Project Area.
Thirteen-lined ground squirrel Spermophilus	Sensitive	Inhabits plains, grasslands, sagebrush, rabbitbrush, and montane meadows, but also utilizes disturbed sites such as pastures, prairie	Low: In Utah, the species is native to the Uinta Basin where it is known to occur in Uintah and Duchesne counties

SPECIES	STATUS ¹	HABITAT	POTENTIAL for and/or OCCURRENCE IN CWSA
tridecemlineatus		dog towns, roadsides, golf courses, and cemeteries. The species prefers cultivated field and grassland habitats. Heavier soils (e.g., clays, loams, or sandy-loams) are preferred. The species hibernates between October and April.	
Reptiles			
Utah milk snake Lampropeltis triangulum	Sensitive	Occurs in cold desert through montane regions where it inhabits grassland, shortgrass prairie, sagebrush, desert scrub, ponderosa pine, and piñon-juniper woodland habitats.	Low: Known to occur in the Book Cliffs. Relative to the CWSA, individuals could be present at some portion of their life cycle.
Great Plains rat snake Elaphe guttata emoryi	Sensitive	Occurs in eastern Utah in major valleys of the Colorado River. Habitats include stream courses, river bottoms and rocky wooded hillsides. It is a secretive snake which spends much of the time in rodent burrows and is nocturnal during warm weather.	None: Habitat for this species does not occur in the Project Area.

Endangered = Federally listed as endangered,

Threatened = Federally listed as threatened,

Candidate = Federal candidate for listing as threatened or endangered,

State Endangered = State listed as endangered in Utah,

State Threatened = State listed as threatened in Utah,

Sensitive = State of Utah sensitive species,

SSC = State of Utah Species of Special Concern PIF = Partners in Flight species of concern.