3.0 THE AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter presents the existing environment for potentially affected resources (i.e., the physical, biological, social, and economic values and resources) in the impact area, as identified by the Interdisciplinary Team Analysis Record (Appendix A) and presented in Chapter 1 of this EA. Chapter 2.0 describes in detail the Proposed Action, the No Action Alternative, and other alternatives considered but not analyzed further. This chapter provides the baseline for the analysis of impacts/consequences described in Chapter 4.0.

The proposed project area is in the Uinta Basin section of the Northern Colorado Plateau (Fenneman 1931) and includes portions of T8S-T10S, R22E-R24E. Elevations range from approximately 4,785 to 5,575 ft. Drainage is south and west to the White River. The proposed project area is used primarily for oil and gas extraction, livestock grazing, wildlife habitat, and recreation and includes approximately 120 mi of roads and trails. The entire area is open to ORV use. A total of 331 wells have been drilled within the proposed project area (Figure 3.1). Of these, approximately 262 are producing at this time. Visual resource management (VRM) classes in the proposed project area are primarily Class IV (50,301 acres), with 447 acres of Class III and 190 acres of Class II (Figure 3.2).

3.2 RESOURCES BROUGHT FORWARD FOR ANALYSIS

3.2.1 Critical Elements of the Human Environment

3.2.1.1 Cultural Resources

A cultural resource file search was conducted to identify previous surveys and previously recorded sites within the proposed project area. The file search was augmented by a records search at the Utah Division of State History. The file and record searches revealed that 435 cultural resource inventories, covering approximately 4,500 acres, have been conducted within the proposed project area. The surveys were conducted for disturbances by roads, pipelines, oil and gas wells, and various BLM projects.

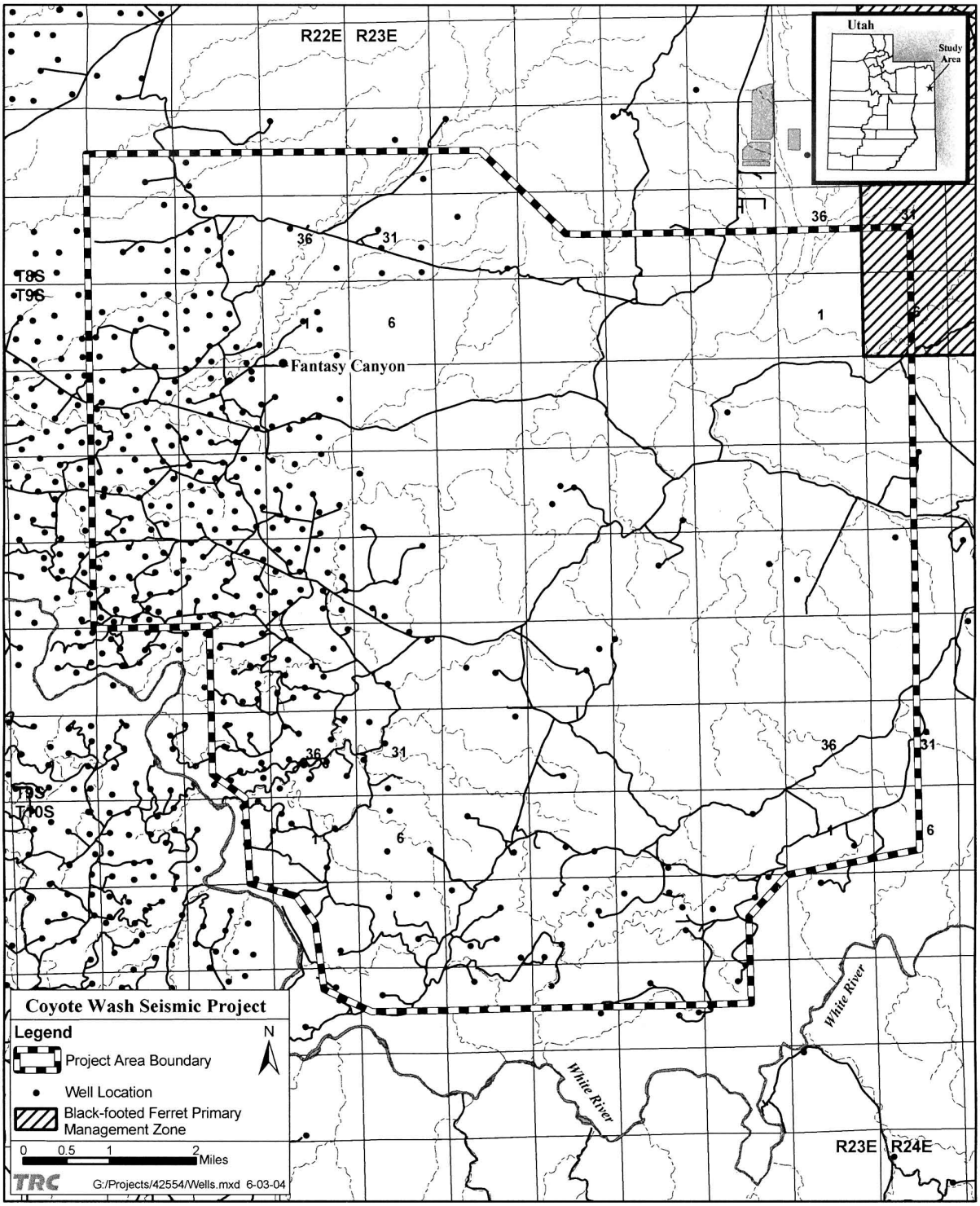

Figure 3.1 Well Locations in the Proposed Project Area and Adjacent Areas.

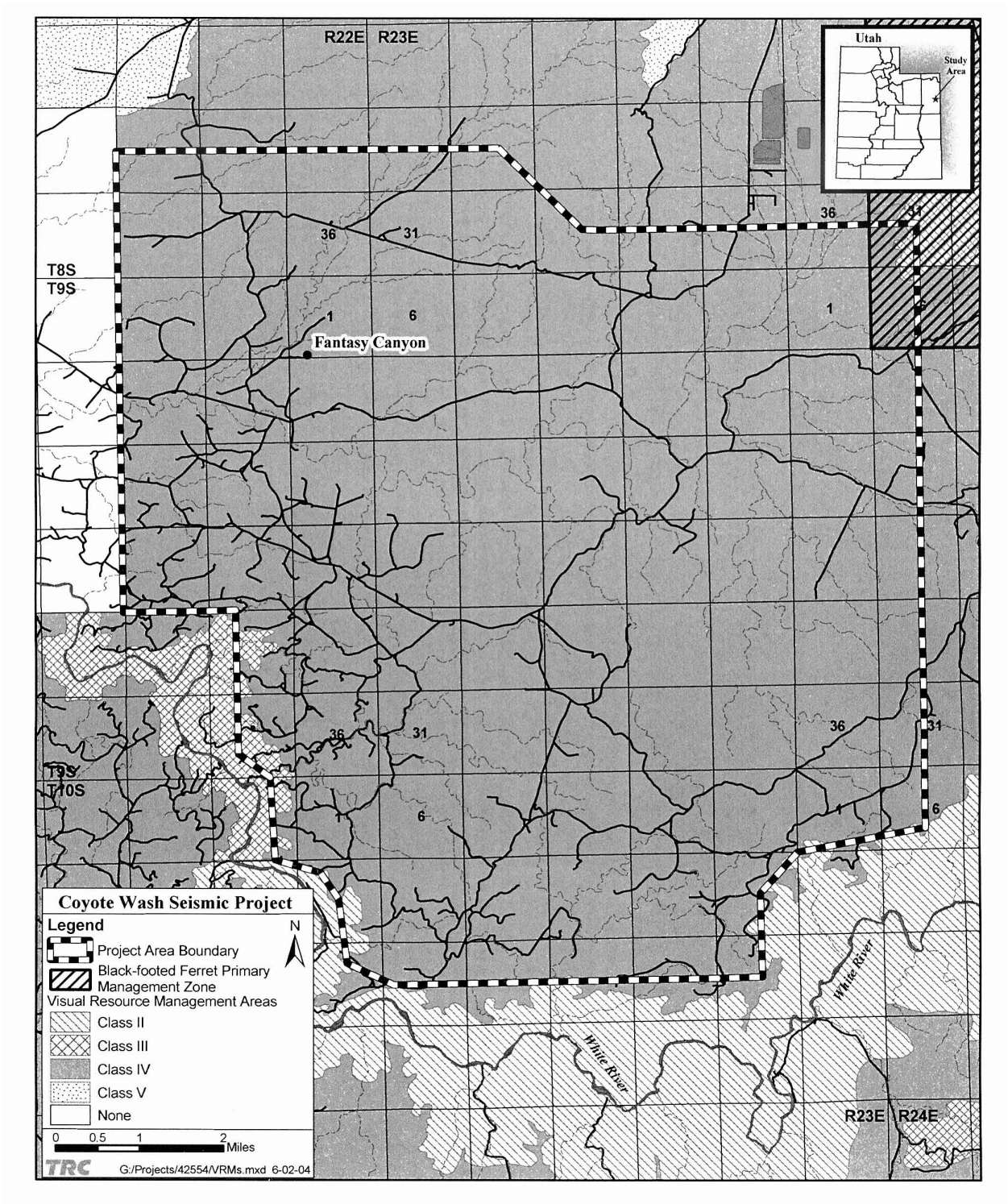

Figure 3.2 Visual Resource Management Classes.

Two hundred eighty-two archaeological sites have been recorded within the proposed project area, including 143 historic sites, 118 prehistoric sites, 17 prehistoric and historic sites, and four sites with no information available concerning them. Included in the 282 sites are 105 sites recommended as eligible for the National Register of Historic Places (NRHP), 171 sites recommended as ineligible for the NRHP, and 6 unevaluated sites.

Of the 118 prehistoric sites, 82 are recommended as eligible for the NRHP, 34 are recommended as not eligible for the NRHP, and 2 are unevaluated. The prehistoric sites include open or temporary camps, rockshelters, lithic scatters, lithic procurement locations, processing locations, slab-lined cists, and a stone structure.

Of the 143 historic sites, 10 are recommended as eligible for the NRHP and 133 are recommended as not eligible for the NRHP. The historic sites include camps, various artifact scatters, cairns, corrals, a wagon road, a telegraph line, a freight line station, rock alignments, a mining adit, inscriptions, and a livestock drive trail.

Of the 17 sites that include both prehistoric and historic components, 13 are recommended as eligible for the NRHP and 4 are recommended as not eligible.

Block surveys in nine complete sections contained 145 sites, or an average of 16 sites per section.

3.2.1.2 Native American Religious Concerns

Native American consultation was initiated with the 14 Tribes affiliated with the Uinta Basin. The results of the consultation are included in Section 4.2.1.2 of this EA.

3.2.1.3 Threatened, Endangered, Proposed, and Candidate (TEPC) and Special Status (SS) Species

The U.S. Fish and Wildlife Service (USFWS) lists seven TEPC plant species that may occur in Uintah County (Appendix B). According to BLM records and appropriate literature, Uintah Basin hookless cactus (*Sclerocactus glaucus*), a threatened species, is the only TEPC plant species identified by the USFWS that occurs in the proposed project area (Table 3.1). The species is found on the Uinta Formation

Table 3.1 Threatened, Endangered, Proposed, and Candidate (TEPC) and Special Status (SS) Plant Species Potentially Occurring in the Coyote Wash 3-D Project Area.

Species	Status	Habitat	Potential for and/or Occurrence
Arabis vivariensis park rock cress	Sensitive	Weber Formation sandstone and limestone outcrops in mixed desert shrub and pinyon-juniper communities. 5,000-6,000 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area.
Astragalus equisolensis horseshoe milkvetch	Candidate	Duchesne River Formation soils in sagebrush, shadscale, horsebrush and mixed desert shrub communities. 4,790-5,185 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area.
Astragalus hamiltonii Hamilton milkvetch	Sensitive	Duchesne River and Wasatch formation soils in pinyon-juniper and desert shrub communities. 5,240-5,800 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area. Elevations too high, Out of range of plant.
Cirsium ownbeyi Ownbey thistle	Sensitive	East flank Uinta Mountains. Sagebrush, juniper and riparian communities. 5,500-6,200 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area. Out of range.
Penstemon acaulis var. acaulis *S*temless penstemon	Sensitive	Daggett County. Semi-barren substrates in pinyon-juniper and sagebrush-grass communities. 5,840-7,285 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area.
Penstemon flowersii Flowers penstemon	Sensitive	Clay badlands in Roosevelt area in shadscale and desert communities. 5,000-5,400 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area.
Penstemon gibbensii Gibbens penstemon	Sensitive	Daggett County. Sandy and shaley (Green River Shale) bluffs and slopes with juniper, thistle, *Eriogonum*, *Elymus*, serviceberry, rabbit brush & *Thermopsis*. 5,500-6,400 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area.
Penstemon grahamii Graham or Uinta Basin penstemon	Candidate	East Duchesne and Uintah Counties. Shaley knolls in sparsely vegetated desert shrub and pinyon-juniper communities. 4,600-6,700 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area. Elevations too high.
Penstemon scariosus var. *albifluvis* White River penstemon	Candidate	Parachute and Evacuation Creek members of the Green River Formation on sparsely vegetated shale slopes in mixed desert shrub and pinyon-juniper communities. 5,000-6,000 ft.	None - No suitable habitat. Associated soils do not occur in the analysis area. Elevations too high.
Schoencrambe argillacea Clay thelopody	Threatened	Bookcliffs, Transition of Uinta and Evacuation Creek member of the Green River Formation on shale formations in mixed desert shrub of Indian ricegrass and pygmy sagebrush. 5,000–5,650 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area. Out of area identified as suitable habitat range. Elevations too high.
Schoencrambe suffrutescens Shrubby reed-mustard	Endangered	Bookcliffs Upper Parachute and Evacuation Creek members of the Green River Formation on calcareous shales in pygmy sagebrush, mountain mahogany, juniper and mixed desert shrub communities. 5,400-6,000 ft.	None - No suitable habitat. Formations and associated soils do not occur in the analysis area. Out of area identified as suitable habitat range. Elevations too high.
Sclerocactus glaucus (*Sclerocactus brevispinus*)	Threatened	Uinta Formation and Gravelly hills and terraces on Quaternary and tertiary alluvium soils associated with drainages, in cold desert shrub communities. 4,700-6,000 ft.	Present in proposed project area.
Spiranthes diluvialis Ute lady's tresses	Threatened	Streams, bogs and open seepages in cottonwood, salt cedar, willow and pinyon-juniper communities. 4,400- 6,810 ft.	None - Soils alkaline. Associated soils, streams and riparian areas not suitable habitat.
Penstemon goodrichii Goodrich penstemon	Sensitive	Shadscale, sagebrush, and juniper communities in red to gray clays of the Duchesne River Formation. 5,600-6,200 fr.	None – No suitable habitat Known only from between Roosevelt and Maeser in Duchesne and Uintah Counties, mostly in Tridell vicinity.

[1] Plant list based on USFWS list of T&E species, BLM State Special Status plant list (Memorandum No. UT-2001-081), data from BLM status reports, surveys, soils, geology and maps, and BLM Vernal Field Office files, Vernal, Utah.

and gravelly hills and terraces on quaternary and tertiary alluvium soils associated with drainages in cold desert shrub communities at elevations of 4,700-6,000 ft. Suitable habitat in the proposed project area was surveyed for Uintah Basin hookless cactus in June, 2004, and no plants were found (Kass 2004). Therefore, there would be no affect on *Sclerocactus glaucus*.

Park rock cress *(Arabis vivariensis*), Hamilton milkvetch *(Astragalus hamiltonii*), Ownbey thistle *(Cirsium ownbeyi),* stemless penstemon *(Penstemon acaulis*), Flowers penstemon *(Penstemon flowersii*), Gibbens penstemon *(Penstemon gibbensii*), and Goodrich penstemon *(Penstemon goodrichii*)--sensitive plant species listed for the VFO--were reviewed to determine if habitat was present. The review demonstrated that there is no potential or suitable habitat for these species in the proposed project area (see Table 3.1) and there would be no affect to these species.

Because none of the TEPC or SS plant species occur in the area to be disturbed by the proposed project, Issue 1 is not discussed further in this EA.

The USFWS listed nine TEPC animal species (four fish, three birds, and two mammals) that may occur in the proposed project area in Uintah County (see Appendix B). These include the four species of Colorado River endangered fish--Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub *(Gila cypha*), razorback sucker (*Xyrauchen texanus)*, and bonytail (*Gila elegans)*; bald eagle (*Haliaeetus leucocephalus*); Mexican spotted owl (*Strix occidentalis lucida*); western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); black-footed ferret (*Mustela nigripes*); and Canada lynx (*Lynx canadensis*).

Colorado River endangered fish. Four endangered Colorado River fish species--Colorado pikeminnow, razorback sucker, bonytail chub, and humpback chub--occur downstream from the proposed project area in the White, Green, and Colorado Rivers. The approximately 0.25 acre-ft of water from the Vernal municipal water supply used in the proposed project is a historical use and has been accounted for in previous depletion calculations (personal communication, August 2, 2004, with Diana Whittington, USFWS, Salt Lake City).

Bald eagle. Bald eagles require cliffs or large trees associated with concentrated food sources (e.g., fisheries, waterfowl concentration areas) or sheltered canyons for nesting or roosting areas (Call 1978, Edwards 1969, Steenhof 1978, Peterson 1968, Snow 1973). Nests are usually used by the same pair of bald eagles for several years. No nests occur in the vicinity of the proposed project area; however, bald eagles do winter along the Green River to the west of the proposed project area and along the White River

to the south and west of the proposed project area. Bald eagles occur in the Uintah Basin in November and leave in March.

Mexican spotted owl. The 1997 Mexican spotted owl habitat model identified numerous areas of potential nesting habitat for the species, primarily in the White River Canyon along the southern edge of the proposed project area. Additional small polygons of potential nesting habitat were identified in scattered locations within the proposed project area. The 2000 Mexican spotted habitat model, however, did not identify any suitable nesting habitat in or adjacent to the proposed project area. No verified sightings of Mexican spotted owls have been recorded in the Book Cliffs Resource Management Area, and no critical habitat or protected activity centers have been identified.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). The western yellow-billed cuckoo, a candidate species, is a riparian obligate that requires extensive, mature riparian woodlands, especially cottonwoods and willows. It nests at or below 25 ft in dense deciduous vegetation near water and prefers 100 acres of more of broad-leafed forest at least 330 ft wide with more than 25 acres of dense nesting habitat per pair. There is no suitable habitat for western yellow-billed cuckoo in the proposed project area. Suitable habitat occurs in the White River Canyon where mature riparian woodlands do occur, but these areas would not be affected by the proposed project. Therefore, the proposed project would not affect the species and it is not discussed further in this EA.

Black-footed ferret (*Mustela nigripes*). Portions of the proposed project area (SW1/4 of Section 31, T8S, R24E NW1/4 and N3/4SW1/4 of Section 32, T8S, R24E), totaling approximately 440 acres, are included in the Black-footed Ferret Coyote Basin Primary Management Zone (Figure 3.3). This reintroduction area contains an experimental, non-essential population of this endangered species. The Book Cliffs RMP was amended in 1999 by EA No. UT 080-1999-02 to allow for the reintroduction of black-footed ferrets. Ferrets released under Section 10j of the *Endangered Species Act* (ESA) are experimental, nonessential, and not considered to be "endangered" but are treated as "proposed for listing" under the Act. This allows for more flexibility in management of the species and formal consultation with the USFWS is not required. However, the BLM is required to keep the USFWS and Utah Division of Wildlife Resources (UDWR) informed of proposed projects in ferret habitat and seek advice on best management practices to protect the animals. Because of the lack of suitable habitat (prairie dog towns) in the project area, the proposed project would not affect black-footed ferrets and the species is not discussed further in this EA.

The RMP amendment requires mitigation for surface and subsurface disturbance; however, geophysical exploration is classified as "ephemeral disturbance." That is, the disturbance encroaches on prairie dog habitat for a period of less than 6 months, following which time it again becomes or can be made suitable for prairie dog use. The RMP amendment requires that ephemeral disturbance may not occur during the "critical period" for breeding ferrets and requires that no disturbance occur within 1/8 mi of the home range of a female ferret between May 1 to July 15.

The portion of the Primary Management Zone included in the proposed project area includes no prairie dog colonies and is, therefore, not likely to provide habitat for black-footed ferrets.

Canada lynx. Canada lynx is a federally listed species whose habitat consists of subalpine/coniferous forest of mixed age and structure classes. Mature forests with downed logs and windfall provide cover for denning sites, escape, and protection from severe weather. Early successional forest stages provide habitat for the Canada lynx's primary prey, the snowshoe hare. No suitable habitat for Canada lynx occurs in the proposed project area, and the species is not discussed further in this EA.

The list of sensitive animal species, including sensitive migratory birds, was compiled using numerous sources (UDWR, *Utah Sensitive Species List*, December 18, 2003; BLM Vernal Field Office files; the Utah Natural Heritage Program [personal communication, May 17, 2004, from Lenora B. Sullivan, Information Manager, Utah Natural Heritage Program, UDWR, Salt Lake City, Utah], and a list of USFWS Birds of Conservation Concern [BCC] and Partners in Flight [PIF] High-Priority species provided by the USFWS State Office in Salt Lake City). Animals on the *Utah Sensitive Species List* that may occur in the area of influence of the proposed project area include: bluehead sucker (*Catostomus discobolus*), BLM; flannelmouth sucker (*Catostomus latipinnis*), BLM; cornsnake (*Elaphe guttata*), BLM; greater sage-grouse (*Centrocerus urophasianus*), BLM, BBC, PIF; mountain plover (*Charadrius montanus*), BLM, BBC, PIF; Virginia warbler (*Vermivora virginiae*), BCC, PIF; black-throated gray warbler (*Dendroica nigrescens*), BCC, PIF; sage sparrow (*Amphispiza belli*), BCC, PIF; gray vireo (*Vireo vicinior*), BCC, PIF; prairie falcon (*Falco mexicanus*), BCC; ferruginous hawk (*Buteo regalis*), BLM, BBC, PIF; burrowing owl (*Athene cunicularia*), BLM, PIF; pinyon jay *Gymnorhinus cyanocephalus*), BCC; Brewer's sparrow (*Spizella breweri*), BCC, PIF; big free-tailed bat (*Nyctinomops macrotis*), BLM; and Townsend's big eared bat (*Plecotus townsendii*), BLM. Many of these bird species are federally-protected by the *Bald Eagle Protection Act* (16 *United States Code* [U.S.C.] 668-668dd) or the *Migratory Bird Treaty Act* (16 U.S.C. 704). For a more detailed discussion of these animals and their occupied and

potential habitats, please refer to Section 3.5.2.2 of the Veritas EA, which is incorporated by reference and available on the BLM VFO web site at <http//www.blm.gov/utah/ vernal>.

There are no greater sage-grouse leks in the proposed project area; however, greater sage-grouse do inhabit the area and likely nest there.

3.2.1.4 Floodplains

Floodplains located within the proposed project area total 2,226 acres and include those associated with Red Wash, Coyote Wash, and Kennedy Wash and their tributaries, as well as one unnamed channel draining directly into the White River (Figure 3.3). The White River floodplain is not included in the proposed project area.

There are several areas along Coyote Wash that exhibit high, steep banks--almost cliffs. These areas often include soils that would be easily eroded if disturbed. Some of these banks are high enough that they have been used as nesting sites by raptors.

3.2.2 Other Resources

3.2.2.1 Paleontological Resources

The BLM uses the Paleontology Condition System to classify paleontological resources. The Paleontology Condition System rates areas (usually geological units or specific portions of geologic units) according to their potential to contain vertebrate fossils or noteworthy invertebrate or plant fossils. BLM Handbook 8270-1 (BLM 1998a) defines these areas as follows.

Condition 1: Areas that are known to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. Consideration of paleontological resources will be necessary if the Field Office review of available information indicates that such fossils are present in the area.

Condition 2: Areas with exposures of geological units or settings that have high potential to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils. The presence of geologic units from which such fossils have been recovered elsewhere may require further assessment of these same units where they are exposed in the area of consideration.

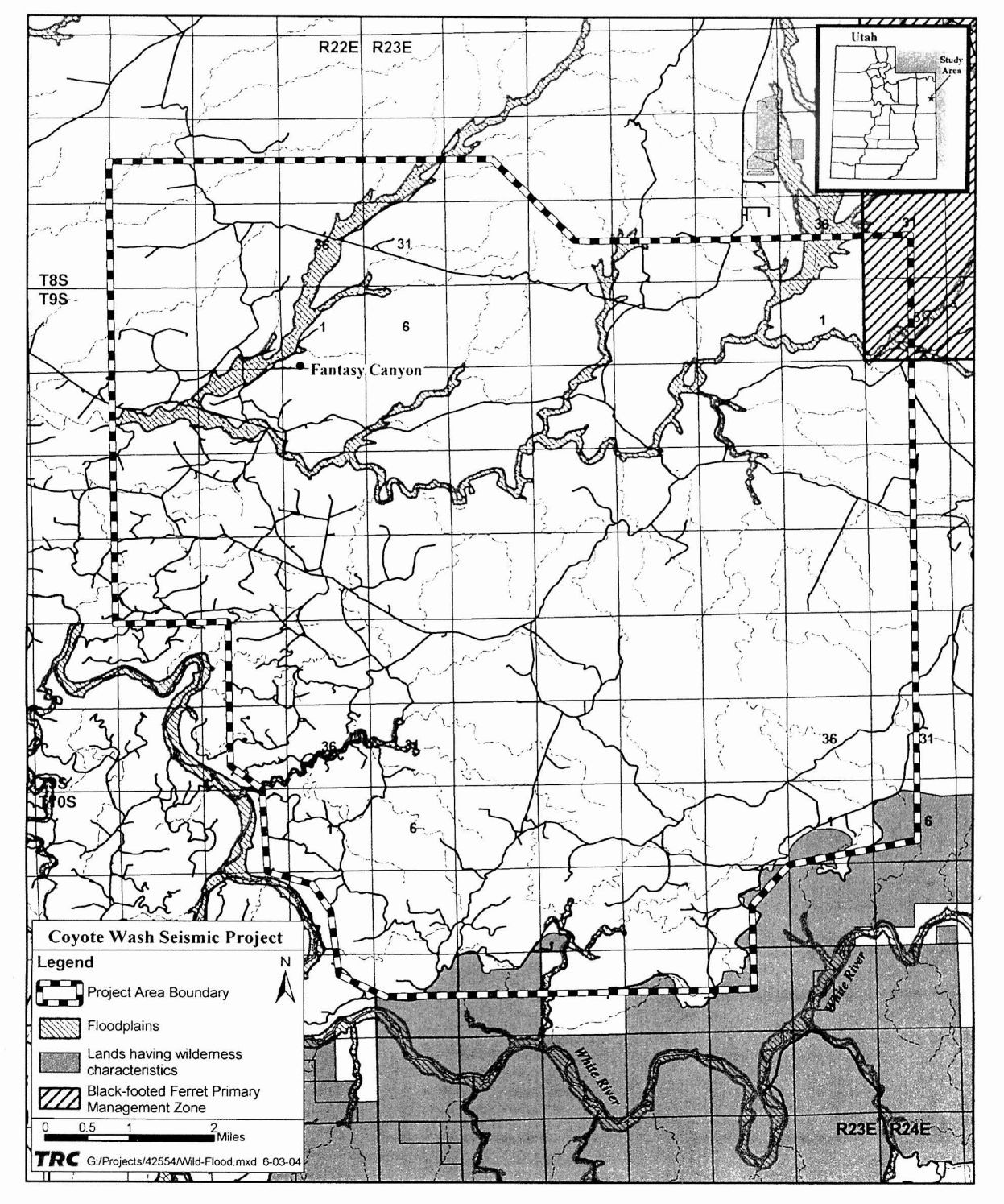

Figure 3.3 Floodplains and Lands Having Wilderness Characteristics.

Condition 3: Areas that are very unlikely to produce vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils based on their surficial geology (igneous or metamorphic rocks, extremely young alluvium, colluvium or aeolian deposits or the presence of deep soils). However, if possible it should be noted at what depth bedrock may be expected in order to determine if fossiliferous deposits may be uncovered during surface disturbing activities.

Within the proposed project area there are areas of the Uinta Formation that meet the criteria of Paleontology Condition 1, areas of the Duchesne River Formation (Brennan Basin Member) that meet the criteria of Paleontology Condition 2, and areas of Quaternary alluvium and colluvium that meet the criteria of Condition 3.

The Uinta Formation consists of greenish-gray, dirty yellow, grayish-orange, and purple fluvial and lacustrine shale, marlstone, siltstone, and sandstone. The formation is divided into an upper and lower part, with the contact between the two parts being gradational. Both parts are exposed extensively in the proposed project area, and because of structural dip to the north the lower unit occurs to the south of the upper part.

The upper part of the Uinta Formation, or Myton Member, includes as much as 250 m of soft, light-gray, white, greenish-gray, maroon, grayish-purple, red, tan, and yellow shale, mudstone, claystone, and minor sandstone. It includes primarily the strata identified as Horizon C_1 (Osborn 1929; Peterson and Kay 1931; and Kay 1934). The Myton Member locally intertongues with the lower part of the Duchesne River Formation and thins to the north.

The lower part of the Uinta Formation, or Wagonhound Member, consists of as much as 300 m of sedimentary rocks including upper and lower units that generally correspond to Horizons A and B of Osborn (1929), Peterson and Kay (1931), and Kay (1934). The upper unit consists of soft, light-gray and light-purple claystone and sandstone containing interbeds of resistant, greenish-gray, light-green, brown, and yellow, cross-bedded lenticular shoestring sandstone and conglomerate beds. The lower unit consists primarily of resistant or moderately resistant, pale-yellow, brown, or red sandstone and minor conglomerate and shale. Potassium-argon radiometric dating of Horizon B_2 yielded an age of 42.8 million years.

The fossil fauna from the Uinta Formation is one of the richest of middle Eocene age in North America, and these fossils have played a very prominent role in understanding middle Eocene mammalian evolution in North America (Rasmussen et al.1999b). Its distinctive fossil fauna makes it the type for the Uintan Land Mammal Age (Wood et al. 1941).

A search of the fossil locality database at the Utah Geological Survey documented 60 fossil vertebrate-bearing localities within the Uinta Formation in 33 sections of land within the proposed project area (Hayden 2004). Six localities were identified in the Myton Member, 48 in the Wagonhound Member, and information to determine the unit of origin for six localities was lacking.

The Brennan Basin Member of the Duchesne Formation consists of a maximum of about 600 m of soft to moderately resistant light- to medium-red, light-gray, light brown, yellow, and tan ledgy sandstone, mudstone, conglomerate, shale, and siltstone. The lower part of the member on Asphalt Ridge west-southwest of Vernal, is composed primarily of light-gray, tan, and pick conglomerate. Locally the member intertongues with the Uinta Formation. The member thins to the west and east. Potassium-argon radiometric dating of the member yielded an age of 39.74 million years.

The Brennan Basin Member is broadly exposed in the Uinta Basin, but is exposed only in the northernmost parts of the proposed project area (T8S, R 23E). Within the basin, the member is known to contain several localities that produce fossil vertebrates, but material from these localities has received little study to date. Rasmussen et al. (1999a) list 17 species in five orders including Proteutheria (one species), Rodentia (two species), Lagamorpha (one species), Perissodactyla (six species) and Artiodactyla (seven species).

Search of the fossil locality database at the Utah Geological Survey did not reveal any recorded localities in the Brennan Basin Member of the Duchesne River Formation in the proposed project area (Hayden 2004).

3.2.2.2 Soils

Two general soil types occur in the proposed project area. The northern third is Badland-Demant-Tipperary--badland and moderately deep and well-drained soils on gently sloping to very steep hillslopes of 4-90%. Limitations include clayey texture and depth to bedrock. The remainder of the proposed

project area is Walknolis-Badland-Rock Outcrop--very shallow and well-drained soils on nearly level to very steep hillslopes of 2-90%. Limitation include depth to bedrock, slope, and areas with severe to critical erosion condition.

Based on past reclamation of oil and gas development in the proposed project area, reclamation success has been moderately successful. Soil types and low moisture are challenges to re-establishing vegetation. In addition, noxious weed infestations are common in the proposed project area and surrounding area. A survey by BLM in 2003 disclosed that noxious weed infestations in the proposed project area involved primarily cheat grass and Russian thistle, as well as smaller inclusions of common burdock, tamarisk, and poison milkweed. Noxious weeds on adjacent lands also include Scotch thistle, Canada thistle, and Russian knapweed.

Biological soil crusts occur on less than 1% (500 acres) of the surface in the proposed project area. Biological soil crusts form a rough carpet on the ground surface, and underground form a matrix that binds soil particles together (BLM 2001b). Biological soil crusts are composed of various organisms, including cyanobacteria, green algae, lichens, mosses, microfungi, and other bacteria (BLM 2001b). The crusts serve to reduce wind and water erosion, fix atmospheric nitrogen, deter weed species from becoming established, and contribute to soil organic matter (Eldridge and Greene 1994; BLM 2001b). Crusts would not be present, or present in various stages of development, in areas that have been previously disturbed.

3.2.2.3 Vegetation

Wyoming big sagebrush (38%), desert sand (22%), Castlevalley saltbrush (19%), and black sagebrush (11%) cover 90% of the proposed project area (Figure 3.4). The floodplains are dominated by black greasewood (5% of the proposed project area). The proposed project area has experienced an ongoing five-year drought episode, with the year 2002 being especially severe. The drought has greatly stressed vegetation, reducing overall forage production and vigor. A die-off of sagebrush is occurring in the general area due to the prolonged drought. Snow pack has been greatly reduced the last five years and has depleted the lower soil horizons of water that the deep tap-rooted shrub and tree species utilize.

As discussed in Section 3.2.2.2, biological soil crusts occur in the proposed project area.

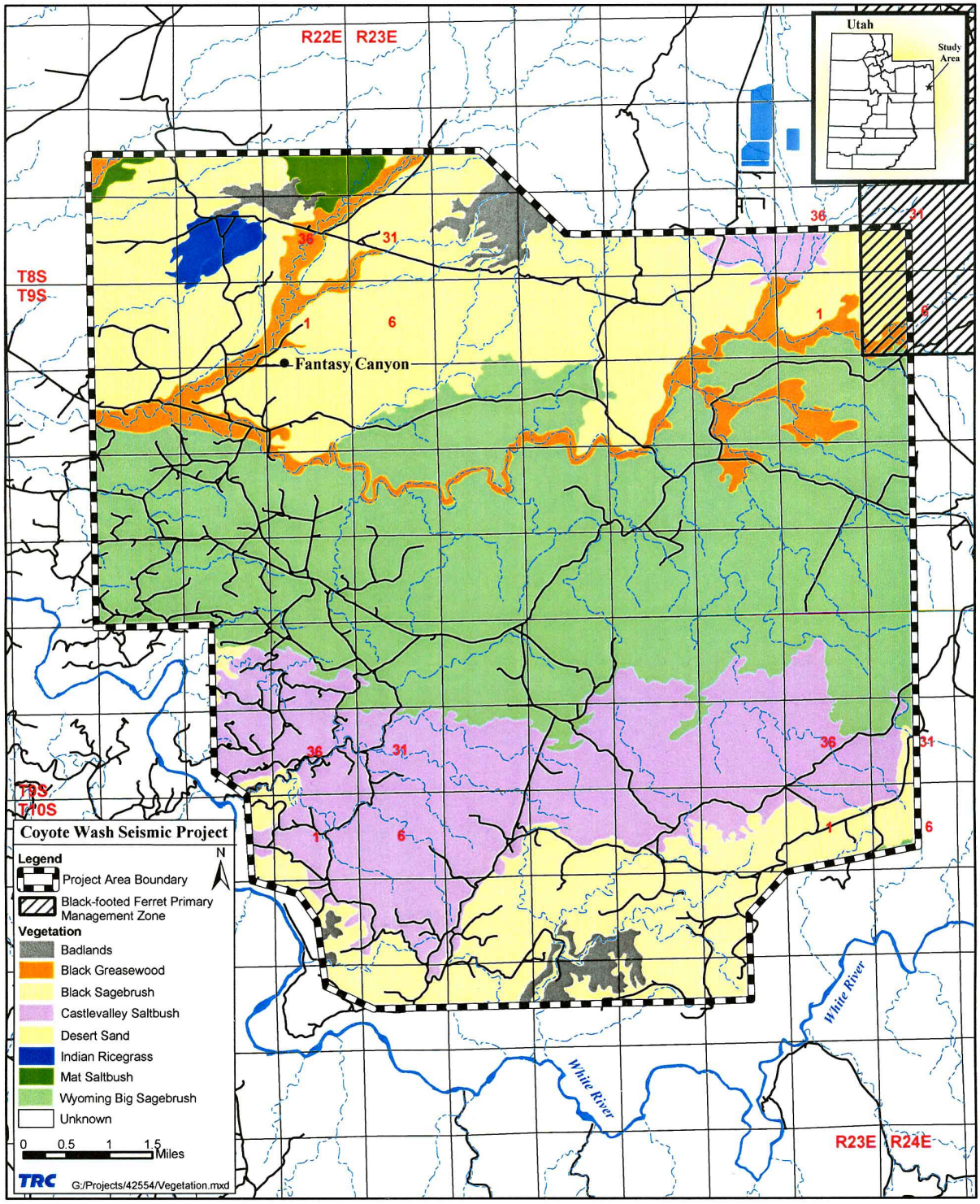

Figure 3.4 Vegetation Types in the Proposed Project Area.

3.2.2.4 Wildlife Resources

Based on habitat designations determined by the UDWR, the proposed project area includes 638 acres (1.3% of the proposed project area) of pronghorn year-long limited range, 21,720 acres (43% of the proposed project area) of pronghorn year-long critical range, and 26,818 acres (53% of the proposed project area) of pronghorn year-long high value range in the Book Cliffs pronghorn herd unit (Figure 3.5). Critical habitat is defined as an area that provides sensitive biological and/or behavioral requisites necessary to sustain the existence and/or perpetuation of one or more wildlife species. High priority habitat includes intensive use by one or more wildlife species. Substantial value habitat includes areas that provide for frequent use by one or more wildlife species. Limited value habitat includes areas that provide for only occasional use by one or more wildlife species. The pronghorn are part of the Bonanza Sub-Unit of the South Slope Herd Unit. Population counts in recent years are as follows: 1998, 1,528 pronghorn; 2000, 891 pronghorn; 2001, 837 pronghorn; 2002, 675 pronghorn; and 2003, 836 pronghorn (personal communication, June 7, 2004, with Charley Greenwood, Wildlife Biologist, UDWR, Vernal). The approximate halving of the population has occurred during, and is at least partially attributable to, the drought that has continued for several years. Fawn production has decreased during this time.

Nests for a number of raptor species (other than those discussed in Section 3.2.1.3) have been recorded in the proposed project area, including golden eagle and red-tailed hawk. Other raptor species likely occurring in the proposed project area include American kestrel, great-horned owl, northern harrier, short-eared owl, great horned owl, and turkey vulture.

Some prairie dog colonies do occur in the proposed project area; however, the greatest concentration of prairie dogs occurs to the east of the project area in the Black-footed Ferret Coyote Basin Primary Management Zone.

Numerous migratory bird species occupy the proposed project area. (Those migratory bird species that are classified as TEPC or SS are addressed in Section 3.2.1.3). Species primarily found in pinyon-juniper habitat include black-chinned hummingbird, gray flycatcher, Clark's nutcracker, western scrub jay, bushtit, juniper titmouse, northern shrike, and Say's phoebe. Species primarily found in desert shrub/shrubsteppe habitat include horned lark, sage thrasher, western kingbird, and Say's phoebe.

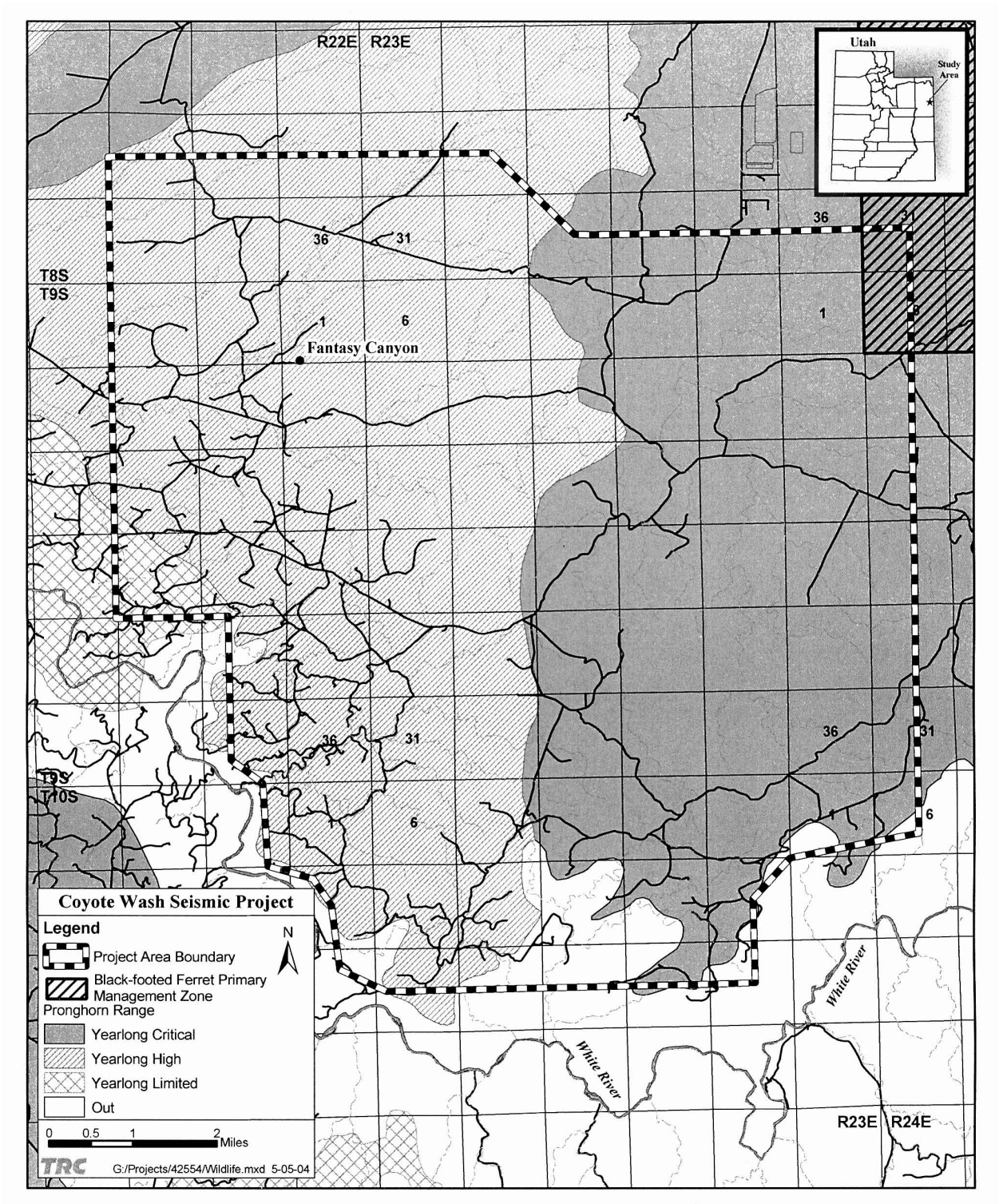

Figure 3.5 Pronghorn Range Types.

3.2.2.5 Recreation

Recreational use in the proposed project area includes some hunting, hiking, and ORV use. The area is open to ORV use except for Fantasy Canyon. Oil and gas development has reduced, to some unknown degree, the appeal of the area for recreational use. The White River to the south of the proposed project area is used by boaters, who often hike up the side canyons into areas identified as having, or likely to have, wilderness characteristics, and to lands proposed for inclusion in an ACEC. Some of these lands occur in the proposed project area. Other hikers access the areas identified as having, or likely to have, wilderness characteristics from various locations above the river. Pronghorn hunting also occurs in the proposed project area. During 2001, 2002, and 2003 there were 62, 49, and 28 pronghorn permits issued for the Bonanza Sub-unit, with a harvest of 60, 43, and 28 pronghorn, respectively.

Fantasy Canyon, known for its unusual rock formations, is the most popular recreation destination in the proposed project area (see Figure 3.6). Fantasy Canyon is about 10 acres in size and contains some of the most unique geological features in the world (Figure 3.6). Fantasy Canyon was officially documented by Earl Douglas, an early explorer and paleontologist. The rocks of Fantasy Canyon were deposited during the Eocene Epoch 38-50 million years ago, during the time that Lake Uinta covered the Uinta Basin. Sediments eroded from surrounding high lands were forged into sandstone and shale. Because of different rates of weathering, the more durable sandstone remained while the more easily weathered siltstone and shale washed away, yielding the spectacular formations.

3.2.2.6 Lands Having Wilderness Characteristics

BLM has determined that there is a reasonable probability that approximately 916 acres within the proposed project area may have wilderness characteristics (BLM 2002c) (Figure 3.3). These wilderness characteristics may include size, naturalness, outstanding opportunities for solitude, outstanding opportunities for primitive and unconfined recreation, and supplemental values.

Figure 3.6 The Gargoyle, One of the Formations in Fantasy Canyon.