

3.1.3.2 Groundwater

Groundwater resources in the Project Area include alluvial and bedrock aquifers, seeps, and springs. Alluvial aquifers occur in unconsolidated deposits and generally underlie the valleys and terraces of the streams and rivers. Localized bedrock aquifers also occur with area, with the depth to the water table generally ranges from 5 to 20 feet, varying seasonally.

Groundwater is used by many residences in the Project Area for household and potable water use. There are no known water supply wells within the ROW of the existing transmission lines or for the Proposed Project.

Available information for the shallow groundwater in the area indicate relatively poor water quality due to high values for specific conductance, total dissolved solids, alkalinity, and hardness.

3.2 BIOLOGICAL RESOURCES

Biological resources characterized in the Project Area included vegetation, including terrestrial vegetation, wetland and riparian areas, and species of concern; and wildlife and fisheries, including terrestrial wildlife, fisheries, and threatened, endangered, and candidate species. Wetlands and riparian areas associated with the ROW of the Proposed Project are typically small, linear bands along the Cache la Poudre River and its tributaries, and are discussed in more detail in the **Section 3.2.1.2, Wetland and Riparian Areas**. The federally listed species, species proposed for listing, and candidate species that may potentially occur in the Project Area are addressed in the Biological Assessment Report provided in **Appendix C**. The purpose of the Biological Assessment Report was to review the Proposed Project in sufficient detail to determine if the action may affect any federally listed threatened, endangered, candidate, or proposed species and was prepared in accordance with the legal requirements set forth under Section 7 (c) of the Endangered Species Act (19 U.S.C) 1536. This section of the EA includes a summary of the information provided in the Biological Assessment Report, a discussion of important habitat areas, and additional information on sensitive species.

3.2.1 Vegetation

Vegetative resources in the Project Area include terrestrial vegetation and more aquatic-oriented species in wetland and riparian areas. Both groups are discussed in the following sections. Additionally, species of concern are also described.

3.2.1.1 Terrestrial Vegetation

The Project Area is located in the High Plains of Eastern Colorado within the physiographic region known as the Great Plains Province. Historically, the dominant plant community in this region was short-grass prairie, interspersed sporadically with mixed-grass communities and wetlands in moist swales and wetlands and riparian communities located along watercourses. However, large sections of this once dominant grassland community have been altered or disturbed by urbanization, livestock grazing, and agriculture (Benedict 1991; Emerick and Mutel, 1984).

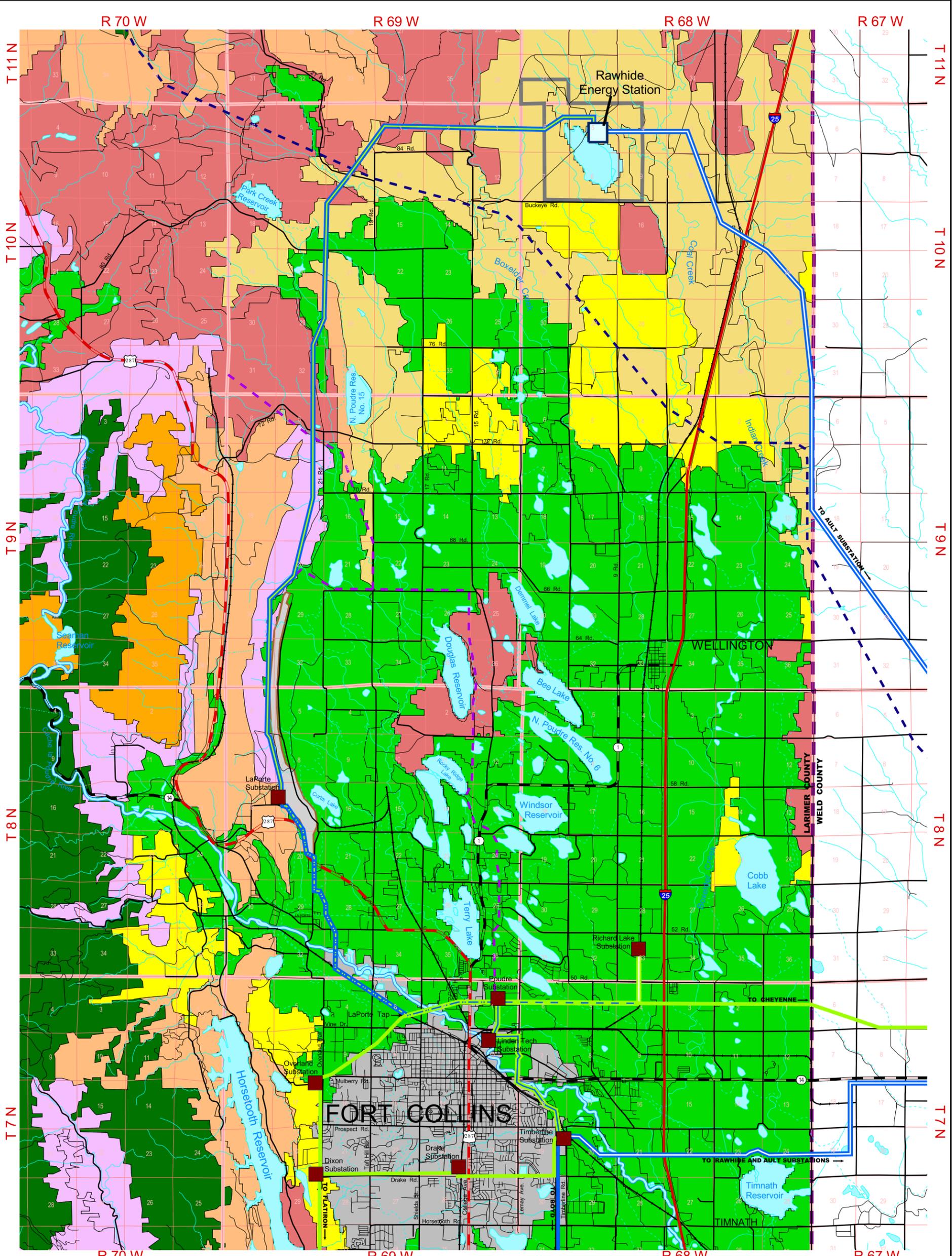
Five natural vegetation land types and three non-native land types occur along the Project Area ROW (CNDIS 2000a). The natural vegetation land types include short-grass prairie, mid-grass prairie, foothills grassland, xeric upland shrubs (**Figure 3-4**), and wetlands/riparian areas (**Figure 3-5**). The non-native land types include irrigated crops, mined (i.e., disturbed), and urban (i.e., built-up) areas. The approximate proportional distribution of the eight general land types within the Project Area ROW are shown in **Table 3-2**. Because wetlands and riparian areas are discussed separately in **Section 3.2.1.2**, the rest of this section addresses only the terrestrial vegetation types.

TABLE 3-2
Proportional Distribution of Land Types Along the Project Area Right-of-Way

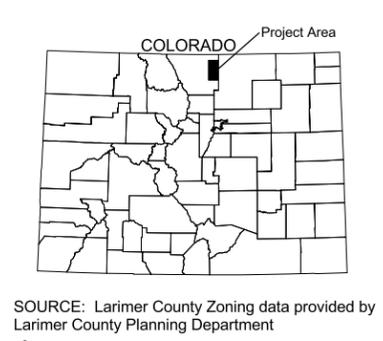
Land Type	Portion of Project Area Right-of-Way (percent)
Urban Areas	23
Irrigated Crops	23
Foothills Grassland	19
Short-grass Prairie	15
Mid-grass Prairie	14
Xeric Upland Shrub	5
Mined Areas	< 1
Wetlands and Riparian Areas	< 1
Total	100

The five natural vegetation land types vary in species composition. The short grass prairie type consists of a dominant short grass understory of buffalograss (*Buchloe dactyloides*) and blue grama (*Bouteloua gracilis*). An overstory of western wheatgrass (*Pascopyrum smithii*), needle and thread grass (*Stipa comata*), or other mixed grass species may also be present. The mid-grass prairie type has dominant species of sideoats grama (*Bouteloua curtipendula*), galleta (*Hilaria jamesii*), foxtail barley (*Hordeum jubatum*), western wheatgrass, little bluestem (*Schizachyrium scoparium*), green needlegrass (*Stipa viridula*), and needle and thread grass. Some of the dominant species in the foothills grassland type are: mountain muhly (*Muhlenbergia montana*), Thruer fescue (*Festuca thurberi*), Perry's oatgrass (*Danthonia parryi*), and needle and thread grass. The xeric upland shrub land type is a shrub community in the elevational range of 5,700 to 9,360 feet with vegetative cover dominated by mountain mahogany (*Cercocarpus montanus*). Some other shrub species that might be present are wax current (*Ribes cerneum*), buckbrush (*Ceanothus fendleri*), antelope bitterbrush (*Purshia tridentata*).

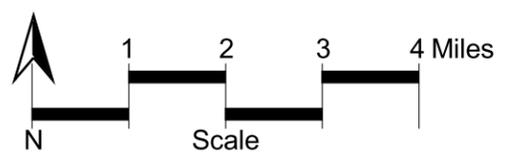
Non-native vegetation land types include irrigated crops, mined (i.e., disturbed), and urban areas. Irrigated crops are those areas with row crops, corn beans, irrigated hayfields and pastures. Mined areas (less than 1 percent) are the result of strip mining along the foothills north of LaPorte. Urban areas include the cities of LaPorte and Fort Collins. These areas are typically highly disturbed areas, but may contain small tracts of native vegetation and natural areas, in the City of Fort Collins along the Cache la Poudre River.



- LEGEND**
- | | | |
|---|---|--|
| <ul style="list-style-type: none"> Rebuild Existing 115kV Single Circuit to 115kV Double Circuit Upgrade Existing 115kV Single Circuit to 115/230kV Rebuild Existing 115kV Single Circuit to 115/230kV Convert Existing 115kV Double Circuit to 115/230kV Upgrade Existing 230kV Single Circuit to 230kV Double Circuit Existing 115kV Double Circuit Existing 230kV Double Circuit Existing 115kV Single Circuit Existing 230kV Single Circuit Existing Substation Rawhide Property Boundary | <p>VEGETATION COMMUNITIES</p> <ul style="list-style-type: none"> Irrigated Crops Dry Land Crops Short-grass Prairie Foothills Grassland Mid-grass Prairie Xeric Upland Shrubs Mesic Upland Shrubs Ponderosa Pine Urban/Built-up Mine Boundary Municipality Rawhide Energy Station Rural Electrical Association Transmission Line Western Area Power Administration 345kV Circuit | <ul style="list-style-type: none"> US Interstate Highway US Highway State Highway Primary Road Secondary Road Railroad Cache la Poudre River Stream Ditch or Canal Aqueduct Lake/Reservoir Section Line County Line Township/Range |
|---|---|--|

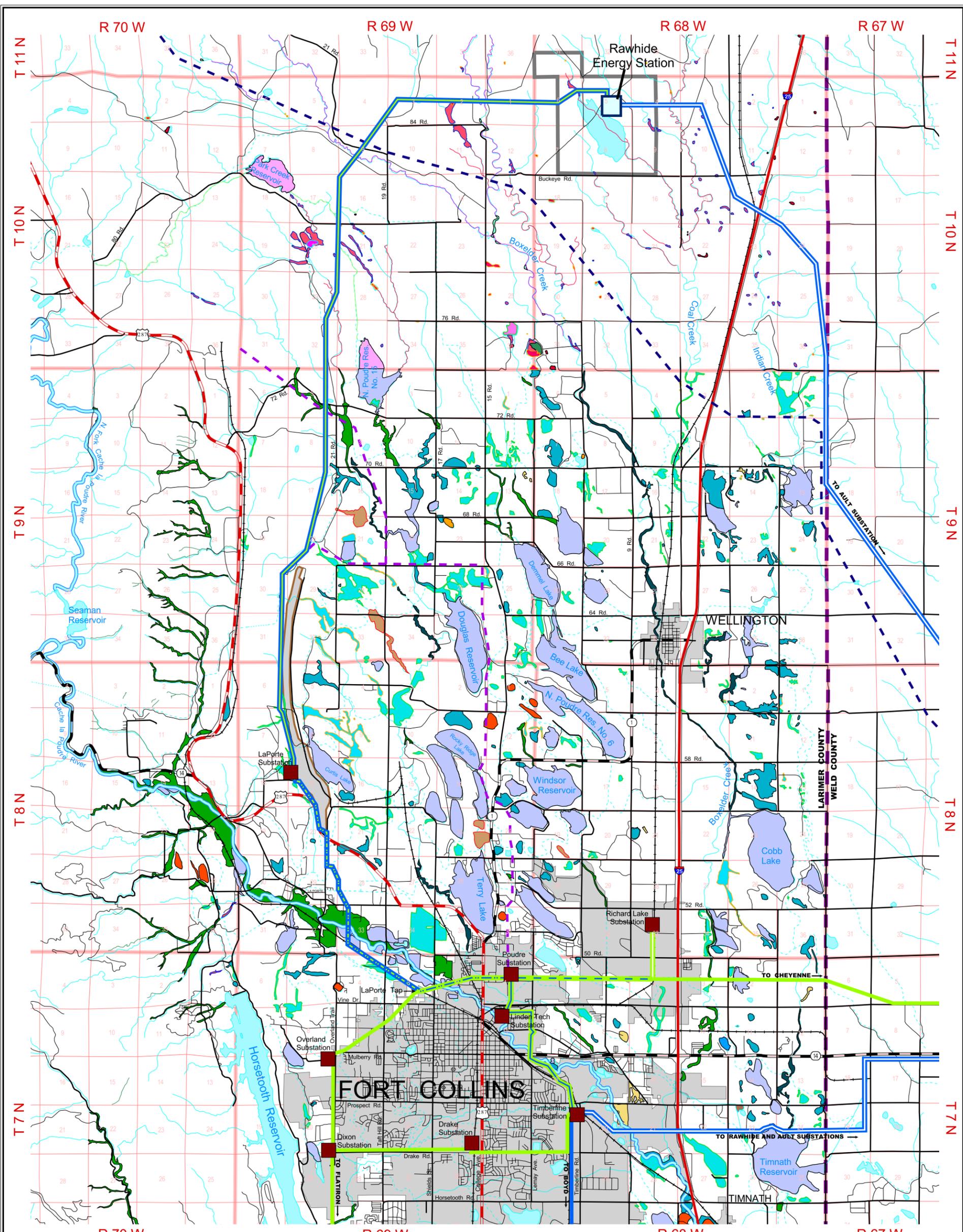


SOURCE: Larimer County Zoning data provided by Larimer County Planning Department

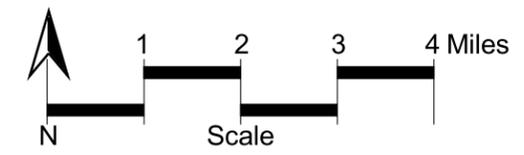
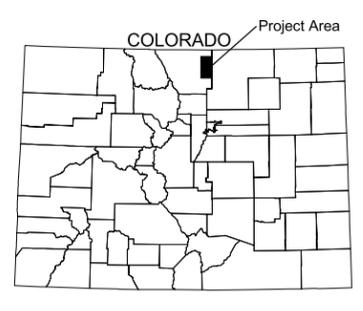


PLATTE RIVER POWER AUTHORITY
FORT COLLINS TRANSMISSION LINE UPGRADE PROJECT
Figure 3-4
Vegetation Communities





- LEGEND**
- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Rebuild Existing 115kV Single Circuit to 115kV Double Circuit Upgrade Existing 115kV Single Circuit to 115/230kV Rebuild Existing 115kV Single Circuit to 115/230kV Convert Existing 115kV Double Circuit to 115/230kV Upgrade Existing 230kV Single Circuit to 230kV Double Circuit Existing 115kV Double Circuit Existing 230kV Double Circuit Existing 115kV Single Circuit Existing 230kV Single Circuit Existing Substation Rawhide Energy Station Rawhide Property Boundary Mine Boundary Municipality US Interstate Highway US Highway Slate Highway Primary Road Secondary Road Railroad Section Line County Line Township/Range | <p>Larimer County Wetland Data</p> <ul style="list-style-type: none"> Aquatic; Palustrine Marsh Bare Mineral Soil; Palustrine Marsh Bare Mineral Soil; Riparian Bare Mineral Soil; Salt Flat Bare Mineral Soil; Vernal Pool Bare Mineral Soil; Wet Meadow Forested Riparian Herbaceous Riparian Herbaceous Salt Meadow Herbaceous Wet Meadow Herbaceous; Palustrine Marsh Herbaceous; Vernal Pool Littoral; Lacustrine Shrub Dominated Riparian Shrub Dominated Wet Meadow Tree/Shrub Dominated; Palustrine Marsh Forested Riparian Cache la Poudre River Stream Ditch or Canal Aqueduct Lake/Reservoir Rural Electrical Association Transmission Line Western Area Power Administration 345kV Circuit | <p>National Wetlands Inventory Data</p> <ul style="list-style-type: none"> Lacustrine Limnetic-Open Water; Artificial Lacustrine Littoral Flat Lacustrine Littoral Open Water; Artificial Palustrine Emergent Palustrine Flat Palustrine Forested Palustrine Open Water Palustrine Scrub/Shrub Emergent Riverine Intermittent Streambed Palustrine Emergent Riverine - Intermittent Streambed Riverine - Intermittent Streambed; Artificial |
|--|---|--|



SOURCE: Wetland data provided by Larimer County Planning Department (Townships 7N, 8N, and 9N) and the United States Fish and Wildlife Service (Townships 10N and 11N).



PLATTE RIVER POWER AUTHORITY
FORT COLLINS TRANSMISSION LINE UPGRADE PROJECT
Figure 3-5
Wetlands and Riparian Areas



3.2.1.2 Wetland and Riparian Areas

Wetlands are defined as those areas inundated or saturated by surface or groundwater often enough to support hydrophytic plants, create hydric soils, and maintain wetland hydrology. Wetlands are important in groundwater recharge and nutrient recycling processes, are instrumental in sediment and flood control, and provide habitats for fish and wildlife. Wetlands and riparian habitats have the potential to support sensitive species. Sensitive species known to occur in Larimer County are listed by the (USFWS 2000a) and the CNHP (see Biological Assessment Report, **Appendix C**).

The ROWs of the existing transmission lines and Proposed Project cross several wetland or riparian areas (**Figure 3-5**) that are designated as Natural Areas or are otherwise recognized as ecologically sensitive. These areas are encompassed by the area designated as the Poudre River Corridor and recognized by the City of Fort Collins as an area of high quality wildlife habitat (see **Figure C-2** of **Appendix C**).

In terms of delineations, wetlands in the Project Area have been mapped using at least one of two systems of delineation, depending upon their location. They are the USFWS' National Wetlands Inventory (NWI) system and the Larimer County Partnership Land Use System (PLUS). Wetlands in the northern one-third of the Project Area were mapped using the NWI system. This portion includes the Project Area from the Rawhide Energy Station south to the North Poudre Reservoir Number 15. Wetlands in the remaining southern portion of the Project Area were delineated using the PLUS.

The wetlands mapped using the PLUS also were previously inventoried and mapped as part of the Proposed Wetland Classification and Protection Program (Cooper and Merritt 1996). This classification system delineated wetlands as defined by the U.S. Army Corps of Engineers' regulations on legal and jurisdictional wetlands developed under the authority of the Clean Water Act (CWA), and NWI maps. The CWA requires that all three parameters (wetland hydrology, hydric soils, and hydrophytic plants) be present for an area to be defined as a wetland. Hydric soils within Larimer County are delineated in the Comprehensive Hydric Soils List, Larimer County Area, Colorado (SCS 1993). The USFWS defines wetlands as areas that meet at least one of the three parameters.

A local classification system was also employed to quantify the importance and function of each wetland within the PLUS Study Area. Wetlands were designated into wetland complexes by the types of functions performed, quality, sensitivity to human disturbance, and overall resource value. The resulting wetland map was adopted as part of the Larimer County Master Plan (LCPD 1997a). The wetlands delineated in the vicinity of the Proposed Project are shown on **Figure 3-5** and were also verified by field visits as discussed in the Biological Assessment Report (**Appendix C**).

Wetlands and riparian areas within the Project Area range from small, linear bands along foothill tributaries to the riparian forest types along the Cache la Poudre River. Many of the wetland areas have previously been modified by urbanization or agriculture. Existing modifications to wetlands in the Project Area include historic gravel mining operations, efforts to stabilize banks for bridge crossings or recreation trails, and heavy grazing by livestock. The impacts from gravel operations are especially evident east of the beginning of the LaPorte Tap line along the Cache la

Poudre River. Many of the mining areas are reclaimed and are in various stages of succession. The impacts from grazing include stream bank cutting and wetland compaction.

Based on the NWI and field visits (see Biological Assessment Report, **Appendix C**), four different wetland types were identified in the northern third of the ROW for the Proposed Project. They are Palustrine Emergent; Riverine-Intermittent Streambed, Natural; River-Intermittent Streambed, Artificial; and Palustrine Flat. These four types of wetlands are found in small, but relatively equal portions along Rawhide Energy Station, Boxelder, and Park Creeks. These wetland types are defined as follows (USFWS 1975):

- Palustrine Emergent – shallow, non-saline areas, at least periodically saturated with water supporting trees, shrubs or herbaceous hydrophytic vegetation. This includes swamps, marshes or bogs, but may also include shallow ponds with permanent or intermittent water sources.
- Riverine-Intermittent Streambed, Natural – wetlands contained within a channel with an intermittent, natural water source.
- Riverine-Intermittent Streambed, Artificial – wetlands contained within a channel with an intermittent water source. The term refers to ditches and canals.
- Palustrine Flat – shallow, non-saline areas, at least periodically saturated with water. The term “Flat” is not a Palustrine class and refers to a mud flat area upgradient from Park Creek.

Based on the PLUS system and field visits (see **Figure 3-5** and the Biological Assessment Report, **Appendix C**), five different wetland types were identified in the southern two-thirds of the Project Area. These types, in order of spatial extent, include forested riparian, herbaceous wet meadow, lacustrine/littoral, palustrine marsh, herbaceous palustrine marsh, and woody (tree/shrub) palustrine marsh. These wetland types are defined (PLUS 1996) as follows:

- Forested riparian wetlands are generally located in linear bands adjacent to wetland zones, and are typified by an interspersion of wetland and upland plants.
- Herbaceous wet meadow refers to grassland with waterlogged soil near the surface, but for most of the year is without standing water.
- Lacustrine/littoral wetlands are those areas along the shoreline of lakes, reservoirs, or impoundments where aquatic and emergent vegetation can grow.
- Palustrine marshes are defined as seasonally or perennially inundated wetlands characterized by standing water. Some are characterized as bare soils without vegetation.
- Herbaceous palustrine marshes are palustrine marshes characterized by herbaceous vegetation adapted to saturated soil conditions.
- Woody palustrine marshes are dominated by trees or shrubs.

In the Project Area, the forested riparian and herbaceous meadow types are found in greater proportions than the other wetland types and are found mainly along the Cache la Poudre River. These riparian areas serve as buffer zones between urban and agricultural land uses and the aquatic and riverine systems. Important functions of riparian areas include detention of runoff and the resulting reduction in the amounts of sediments, nutrients and pollutants received by the streams and wetland ecosystems. Riparian areas also serve as corridors to allow for the movement of animals and plants from one habitat to another.

Many of the wetlands and riparian communities in the Project Area are designated by the CNHP as “Rare and Imperiled Animals, Plant, and Natural Communities”. These areas include properties that the City of Fort Collins has designated as Natural Areas (**Figure C-2** in **Appendix C**). The City’s Natural Areas included in the Project Area, traveling from the first Cache la Poudre River crossing downstream, are the Poudre River Trail Area, McMurry Area, Hickory Area, Mulberry Water Reclamation Facility, Springer Area, Bignall Area, Nix Area, and Coterie Area. The City of Fort Collins has various concerns for the preservation of natural resources and other project coordination regarding the Proposed Project. A letter was received for the City on November 8th, 2000 and is provided in **Attachment A** of the Biological Assessment (**Appendix C**).

3.2.1.3 Species of Concern

Five species of rare plants are found in eastern Larimer County and are in close proximity to the Project Area. These plants are the Ute ladies’ tresses orchid, Colorado butterfly plant, Bell’s twinpod, showy prairie gentian, and American black current. The two federally protected species, Ute ladies’ tresses orchid and the Colorado butterfly plant, are addressed in detail in the Biological Assessment Report (**Appendix C**) and are summarized below.

Ute ladies'-tresses orchid is a federally listed threatened endemic orchid that occurs primarily in seasonally moist soils near springs, lakes, or perennial streams. The orchid establishes in open grass and forb-dominated sites that are not overly dense or overgrown (Coyner 1989, 1990; Jennings 1989, 1990). Populations occur in mesic or wet meadows near riparian edges, gravel bars, and old oxbows along perennial streams within an elevational range of 4,000 to 7,000 feet. A few populations in eastern Utah and Colorado are found in riparian woodlands, but the orchid seems generally intolerant of shade. Most populations occur as small, scattered groups occupying relatively small areas within the riparian system. This orchid may require sub-irrigation at least during the growing season, which in this semi-arid climate dictates a close affinity with floodplains where the water table is near the surface throughout the growing season and into early autumn. Greystone biologists conducted an orchid survey and searched the Element Occurrence records with the Colorado Natural Heritage Program (CNDIS 2000b). There are no known occurrences of Ute ladies’-tresses orchid within the Project Area. The nearest known occurrence of this species is west of Fort Collins along a tributary of the Cache la Poudre River (CNDIS 2000b), upstream of LaPorte.

Colorado butterfly plant was listed as threatened on November 17, 2000 (USFWS 2000b). It is a member of the evening primrose family and is found along the eastern slopes of the Rocky Mountains from Castle Rock, Colorado to Cheyenne, Wyoming. Preferred habitat for this species is moist prairie meadows and transition zones between wet stream bottoms and rich

floodplain areas (Spackman, et al. 1997; USFWS 1998b). Although potential habitat for this plant does occur within the Project Area, a CNHP record search identified no occurrences of this species in the vicinity of the Proposed Project ROWs. Additionally, no plants of this species were observed during rare plant surveys. The nearest known occurrence of the Colorado butterfly plant is approximately four (4) miles northeast of the Rawhide Energy Station along Spottlewood Creek (CNDIS 2000b). Another known occurrence of this plant is located near the Project Area is northwest of Fort Collins, approximately five (5) miles west of State Highway 287.

Bell's twinpod is an upland plant that was formerly listed as a candidate species by the U.S. Fish and Wildlife Service. Because this designation was dropped in 1997, it is not a legally protected species. Bell's twinpod grows on dry, loose shale slopes at elevations of 5,200 to 5,800 feet (Spackman et al. 1997). It flowers from March to May and is found only in Boulder, Jefferson, and Larimer Counties. During a site visit on August 31, 2000, biologists found the Bell's twinpod plant adjacent to the ROW on a shale slope upgradient from Park Creek (Greystone 2000). The Colorado Natural Heritage Program has previously identified this location and two others (near Boxelder Creek, west of the Rawhide Energy Station and Curtis Lake, north of the City of LaPorte) as having Bell's twinpod plant populations.

Showy prairie gentian is a rare plant occurring along streams in wet meadows and pastures or at the margins of lakes or ponds (Spackman et al. 1997). This plant is often found in alkaline soils and it flowers from July to August. Showy prairie gentian is known to occur in Larimer County, and the Colorado Natural Heritage Program indicates that it is potentially present along the ROW of the Proposed Project in two locations, near the LaPorte Substation and near the Cache la Poudre River northeast of the Timberline Substation. There is potential habitat for this rare plant in many of the stream crossings within the existing ROWs.

American black currant is a rare shrub found in twelve places over five Front Range counties (Arapahoe, Douglas, Jefferson, El Paso, and Larimer Counties) in Colorado (CNHP 2000). In Larimer County, this shrub occurs along the Cache la Poudre River in the City of Fort Collins' Springer Natural Area (Manci 2000). The occurrence area for this shrub includes the ROW of the existing transmission line in the vicinity south of Mulberry Street and west of Lemay Avenue in the City of Fort Collins. The city also is currently constructing a stormwater retention and wetland project, known as the Locust Stormwater Outfall Project, in this natural area (Manci 2000). Thus, the Springer Natural Area will be impacted by the city construction activities regardless of the Proposed Project.

3.2.2 Wildlife and Fisheries

Terrestrial wildlife, fisheries, and threatened, endangered, and candidate species within the Project Area, are discussed in the following sections.

3.2.2.1 Terrestrial Wildlife

Wildlife resources within the Project Area are primarily upland in nature, except in those areas along the Cache la Poudre River and small stream crossings north of LaPorte (**Figure 3-3**). The major wildlife groups within the Project Area include big game, predators, small mammals, raptors, upland gamebirds, waterfowl, songbirds, reptiles, and amphibians. Threatened endangered, and candidate species are addressed in **Section 3.2.2.3**.

Big game species include mule deer and pronghorn antelope (CNDIS 2000a). The northern half of the Project Area is mule deer winter range and pronghorn antelope range throughout the year. In particular, the Park Creek and Miner's Lake drainages are antelope concentration areas. These are areas where the densities of antelope can be twice that of surrounding areas. These may be areas that are free of snow in winter or provide water sources during dry summer months.

A variety of mammalian predators, small mammals, and reptiles and amphibians occur or potentially occur in the Project Area. Species of predators include the coyote, swift fox, red fox, gray fox, raccoon, ermine, long-tailed weasel, mink, badger, striped skunk, river otter, mountain lion, and bobcat (Fitzgerald et al. 1994). Small mammals that may occur include shrews, cottontail rabbits, jackrabbits, ground squirrels, squirrels, deer mice, harvest mice, woodrats, and voles (Fitzgerald et al. 1994). Species of reptiles and amphibians expected to occur in the Project Area include tiger salamander, plains spadefoot, Woodhouse toad, boreal chorus frog, northern leopard frog, eastern fence lizard, short-horned lizard, prairie rattlesnake, gopher snake, yellow-bellied racer, and western terrestrial garter snake (Hammerson 1999).

Additionally, several groups of birds occur or potentially occur in the Project Area. They include raptors, waterbirds, game birds, and songbirds. Species of raptors that may occur in the area include the golden eagle, red-tailed hawk, ferruginous hawk, American kestrel, sharp-shinned hawk, Cooper's hawk, northern harrier, Swainson's hawk, eastern screech-owl, great-horned owl, short-eared owl, burrowing owl, and prairie falcon (Andrews and Righter 1992). During the site visits conducted in August 2000, several golden eagles were observed along the rocky cliffs near Park Reservoir (Greystone 2000). Additionally, raptor nests are likely to occur in suitable habitats throughout the Project Area, although none were observed during site visits in August 2000. Species of game birds that are expected to occur include the mourning dove, turkey, and bobwhite quail (Andrews and Righter 1992). Primary species of songbirds expected to occur include corvids (jays, magpies, crows, and ravens), wrens, thrushes, vireos, warblers, sparrows, blackbirds, meadowlarks, orioles, and finches (Andrews and Righter 1992).

The occurrence of waterbirds, such as the great blue heron, American white pelican, and waterfowl, in or near the Project Area also has been documented (CNDIS 2000b). Waterfowl frequent the area surrounding the Project Area, especially the many reservoirs and impoundments in this portion of Larimer County. The Cache la Poudre River also provides habitats for a variety of species, such as the mallard, gadwall, pintail, lesser scaup, and green-winged teal. Upland areas, such as croplands and suburban areas, also support Canada geese.

3.2.2.2 Fisheries

The Project Area crosses many small perennial streams north of Fort Collins and the Cache la Poudre River. These waterways provide habitats for native and exotic species of fish, such as fathead minnows, white suckers, red-bellied dace, rainbow trout, green sunfish, and bullheads. In addition, two species, the Iowa darter and brassy minnow, have been classified as State of Colorado species of concern (CNHP 1997). These species are discussed in more detail in the next section.

3.2.2.3 Threatened, Endangered, and Candidate Species

Several federally protected species, Colorado Species of Concern, and species of local interest (as designated by Larimer County and the City of Fort Collins) occur or may occur in the Project Area. Species that are federally listed, proposed for listing, or candidates for listing are addressed in detail in the Biological Assessment (**Appendix C**).

These species include the bald eagle, mountain plover, black-footed ferret, black-tailed prairie dog, and Preble's jumping mouse (see **Figures C-3, C-4 and C-5 of Appendix C**, respectively). Other species of concern, or those of special interest because of their rare occurrence or imperiled status, include several species of raptors (the golden eagle, peregrine falcon, prairie falcon, ferruginous hawk, red-tailed hawk, Swainson's hawk, and burrowing owl), Brewer's sparrow, Iowa darter, and brassy minnow.

Golden eagles were observed near Park Creek Reservoir in the vicinity of the Project Area during a site visit on August 17, 2000. Undoubtedly, many other raptor species occur in or near the Project Area. The occurrence of ferruginous hawks north of the Rawhide Energy Station and burrowing owls near Cobb Lake, east of Interstate 25, approximately 2.75 miles northeast of the Richards Lake Substation has been documented (CNDIS 2000a). Although no burrowing owls were observed during Project Area site visits, several prairie dog colonies were observed in or near the Project Area (see **Figure C-2 of Appendix C**). These prairie dog colonies could provide nesting habitat for burrowing owls.

Although no regulatory agencies or natural history organizations list the Brewer's sparrow as a species of concern in Colorado, Larimer County's representatives have listed the Brewer's sparrow as a species of interest in the Project Area (LCPD 1997a). The Brewer's sparrow is common in northwestern Colorado where it breeds in sagebrush plant communities and, to a lesser extent, other mountain shrubland communities. Because no sagebrush or extensive shrub communities exist in the Project Area, the potential for nesting habitats to occur in the Project Area is slight. However, a few scattered records document the occurrence of this sparrow in or near the Project Area during migration periods (Andrews and Righter 1992).

Biologists found potential Preble's mouse habitat during a habitat assessment of the Project Area. Habitat is found along the Cache la Poudre River and of particular interest are Natural Areas managed by the City of Fort Collins (see **Figure C-5 of Appendix C**). This corresponds to the portion of the Project Area that is to be rebuilt and upgraded between the Poudre and the Timberline Substations. The areas where the transmission line ROW crosses the river, contain good quality habitat adjacent to the river. The northern portion of the Project Area (i.e., north of the Cache la Poudre River) could support Preble's mouse habitat if these riparian areas (e.g., Park or Boxelder Creeks) were not so heavily grazed. In areas of potential habitat (i.e., areas adjacent to the Cache la Poudre River) the defined habitat areas include a 300-foot upland foraging area around appropriate wetland types within the ROW. This upland area is a standard width beginning at the 100-year floodplain demarcation and is suggested by the USFWS to be protective of the areas of potential habitat (USFWS 1998c).

The Iowa darter is native to the Platte River system and has been found in Lone Tree Creek (CNHP 1997) about 7.5 miles northeast of the Rawhide Energy Station. However, the occurrence of populations of the Iowa darter in the Project Area has not been documented. Furthermore, site

visits (August 17 and 31, 2000) failed to locate habitats for the Iowa darter within any of the small streams crossed by the ROW within the Project Area. This species appears to prefer streams with clear, cool water, abundant aquatic vegetation, and a sand or organic matter substrate. Also, it is absent from reaches of stream that do not have undercut banks (Woodling 1985).

The brassy minnow is native to the Platte River system and has been found in Lone Tree Creek and Spottlewood Creek (CNHP 1997) 7.5 miles northeast and 1.0 miles east of the Project Area, respectively. The occurrence of populations of this minnow in the Project Area has not been documented and land practices (e.g., grazing) along the small streams in the Project Area do not promote the proper habitat conditions for this species. This species appears to prefer streams with clear, cool water, abundant aquatic vegetation, and a gravel substrate (Woodling 1985).

3.3 HUMAN ENVIRONMENT

This section discusses the existing land ownership, zoning, land use, visual resources, socioeconomics, and public health and safety, and electric effects as they pertain to the Proposed Project.

3.3.1 Land Ownership

The land ownership in the Project Area consists of both private and public lands located within Larimer County as shown on **Figure 3-6**.

3.3.2 Zoning

The Larimer County Master Plan (LCPD 1997a) designates most of the land within the Project Area to the north of the City of Fort Collins as “Rural” or “Urban” lands. The Larimer County Land Use Code zoning categories for the land within most of the Project Area are primarily “O-Open” and “RE-Rural Estate” lands (**Figure 3-7**).

The City of Fort Collins zoning categories apply to the portion of the Project Area where the existing transmission line is located within the jurisdictional area of the city as shown on **Figure 3-8**.

3.3.3 Land Use

The following sections discuss the existing land uses within the Project Area, including agricultural/rangeland, residential, public land/designated open space, and infrastructure and ROWs.

3.3.3.1 Agriculture/Rangeland

The portion of the existing transmission line, between the LaPorte Tap and the Rawhide Energy Station, is considered rural land, predominantly agricultural and rangeland use. Agricultural lands include lands used for crop development. Typical crops in the area include barley, corn, oats, and hay crops (National Agricultural Statistics Service 1998).