3 LOCATION AND ECOLOGICAL SETTING

The planning area for the Wildlife Management Plan is the same as established for the Open Space and Trails Master Plan and is bounded by Yellowstone Road on the north, Weld County Road 7 on the east, Oxford Road on the south, and 65th Street on the west. Map 1 depicts the planning area, including linkages to the South Platte River and foothills tributaries.

This Plan addresses four types of public open lands within the planning area, regarded collectively as the "open space system." The City of Longmont maintains an Open Space program that manages approximately 2,500 acres of land within the planning area. The City also maintains public parks and golf courses that total approximately 640 and 540 acres, respectively. Also within the planning area are approximately 12,500 acres managed by the Boulder County Open Space Department. Table 1 lists the acres of Open Space and Parks lands in the planning area. Map 2 shows the location of these lands, both within and near the planning area.

Table 1. Open Space/Park Lands in the Planning Area (62,255 acres) [1]

Land Type	*Total Area (acres)*	*Percent of Planning Area*
City of Longmont Open Space	2,876	4.6
City of Longmont Parks	648	1.0
City of Longmont Golf Courses	532	0.9
Boulder County Open Space	13,340	21.4
St. Vrain State Park [2]	145	0.2
Total Open Space/Parks Lands	**17,541**	**28.1**

[1] *Includes conservation easements managed by the City.*

[2] *Total area of St. Vrain State Park ≈ 670 acres.*

The planning area includes a variety of wildlife habitats as well as urban, suburban, and rural human habitats and "non-habitats." Map 3 shows the "false-color infrared" satellite imagery that was used in combination with "true color" imagery and ground truthing to identify major classes of land use and habitat types. Red areas generally represent actively growing vegetation, which at the time of the imagery (late summer 2002) would include riparian areas, wetlands, irrigated lawns, and irrigated croplands. Blue or tan areas include fallow fields, dryland or irrigated crops that have been harvested, and hard surfaces (e.g., buildings and parking lots). Green areas are surface water. Map 4 shows the major habitat types discernible from the satellite imagery.

Table 2 presents information on the extent of these major habitat types in the planning area. Note that cropland, including both irrigated and non-irrigated land, represents more than 68 percent of the planning area, while non-habitat (e.g., buildings, streets, and parking lots) adds 15 percent. Riparian habitat—areas along streams and irrigation ditches—constitute less than 2 percent of the planning area.

Table 2. Major Habitat Types and Non-Habitat) in the Planning Area

Habitat Type	***Total Area (acres)***	***Percent of Wildlife Habitats***
Agricultural – Cropland	18,321	68.6
Non-habitat	4,009	15.0
Urban – Non-park	1,603	6.0
Open Water Lakes/Ponds	993	3.7
Agricultural – Pastureland	864	3.2
Urban – Park	580	2.1
Riparian – Perennial Stream	180	0.7
Riparian – Other	170	0.6
Total	**26,720**	**100.0**

Longmont lies near the western edge of the High Plains Section of the Great Plains Province (Hunt 1967). The High Plains Section is bounded on the west in the Longmont vicinity by the foothills and piedmont of the Front Range of the Southern Rocky Mountains.

Prior to settlement by Europeans, the region consisted of a mosaic of prairie habitats, dominated by shortgrass prairie but with sand prairie on sandy soils and tallgrass prairie on relatively moist areas along drainages (Shelford 1963, Marr 1967). The vastness of the prairie was broken only by ribbons of cottonwoods, willows, and other riparian trees and shrubs along streams, pockets of cattails and other wetland plants along drainages and shallow swales, and areas of shrubs on rock outcrops and the steep slopes of mesas and ridges. Today, the view at the Sandstone Ranch District Park (photo above) illustrates this mosaic, with shortgrass and some sand prairie elements (mostly removed by mining) atop the bluffs, tallgrass prairie (entirely replaced by non-native pasture) on the St. Vrain floodplain, and riparian woodland (relatively intact, but modified by grazing, mining, and other uses) along the river.

Wildlife use during the pre-settlement period was dominated visually by grassland herbivores (bison, pronghorn, elk, and black-tailed prairie dog). The mosaic of prairie habitats also supported abundant and diverse communities of small mammals, ground-nesting songbirds, reptiles, and the various predators (carnivores and raptors) that hunted them. The riparian, wetland, and shrubland communities also supported their own wildlife assemblages, most notably with white-tailed deer, wild turkeys, and arboreal songbirds and raptors in the riparian woodlands and native fishes and water birds in the perennial streams.

By the late 19th and early 20th centuries, much of the prairie ecosystem had been converted to agricultural habitats. These included both irrigated crops and non-irrigated (dryland) crops, pastures in which the native grasses were replaced with more consistently productive non-native grasses, and numerous small lakes and ditches associated with irrigation and stock watering. Wildlife use also changed during this period, with increasing areas and numbers of deciduous (broadleaf) trees along ditches and ponds providing increased habitat for arboreal (tree-dwelling) or other riparian species and the numerous ponds attracting water birds. A negative aspect of this period was the removal of native vegetation cover by livestock, coupled with the inadvertent introduction of non-native forbs (broadleaf herbs) and annual grasses during the planting of non-native forage grasses (mostly of Eurasian origin). This led to the invasions of weeds that continue to this day.

The construction of irrigation ditches and lakes during the early agricultural period not only increased riparian and wetland habitats, it created additional east-west movement corridors for species that require cover and water. However, this potential benefit was offset for other species by the concurrent impacts to natural streams and riparian corridors due to runoff from plowed fields and concentrated use (including trampling and excessive herbage removal) by livestock. Introductions of non-native "sport" fish into natural streams, channelization of streams to allow closer farming or development, and diversion of water from streams into ditches and lakes reduced habitat quantity and quality for many native aquatics. Overall, the ecosystem changed from one dominated by large, unbroken blocks of habitat to smaller, more fragmented blocks. These "human-affected" habitats are better suited to use by habitat generalists versus habitat specialists, "edge" species versus "interior" species, and species tolerant of (or even partially dependent on) human influence versus more furtive (wary or secretive) species. Concurrently, hunting or trapping of some species for sport, for meat, or to remove predators and "pests" changed the wildlife communities further.

During the late 20th and early 21st centuries, continued human population growth has led to much of the remaining grassland, as well as much of the farmland, being converted to areas of residential, commercial, industrial, or recreational development. In addition, development has encroached very close to the natural stream corridors and the artificial ditch and lake habitats created decades before. This has continued a trend that began much earlier—i.e., loss and fragmentation of native terrestrial and aquatic habitats and the species they support, and shifting of plant and wildlife communities to conditions more strongly reflecting human influence.

Nonetheless, while relatively little of the original landscape of Longmont remains, the City continues to contain some ecologically diverse and productive areas, including much of the St. Vrain Creek corridor, other stream and major ditch corridors, and several significant lakes. These areas, and others, provide an opportunity to maintain and enhance relatively natural (although not pristine or truly native) habitat areas. Some of these lands, as well as remaining croplands and semi-native pastureland, also offer the long-term potential to restore a portion of the ecological values formerly lost and ensure that diverse and interesting native wildlife remain a part of Longmont's landscape.