

Central Loess Hills

landscape occupies the loess hills region of central Nebraska. The landscape consists of rolling to steep loess hills, dissected by



the valleys of the Loup rivers. The hills are now a mosaic of mixed-grass prairie and cropland. Lack of grazing managed for biological diversity values, exotic plant invasion, and herbicide spraying have degraded the majority of prairies. The flatter tablelands of this landscape contain playa wetlands that are used by whooping cranes and numerous other waterbirds during migration. The largest protected areas in the landscape are Sherman Reservoir WMA and Davis Creek WMA.

Stresses Affecting Species and Habitats

- ❖ Specific livestock grazing and haying practices that may reduce native plant diversity and promote uniform habitat structure
- ❖ Invasive plants species in upland prairies, meadows, and woodlands including eastern red cedar, smooth brome, cheatgrass, Kentucky bluegrass, leafy spurge, phragmites, Russian olive, and musk thistle
- ❖ Broadcast herbicide application to prairies
- ❖ Sedimentation and drainage of the playa wetlands
- ❖ Reduced stream flows
- ❖ Increased sedimentation and nutrients in streams
- ❖ Conversion of grasslands to cropland
- ❖ Housing and cabin development
- ❖ Poorly-sited utility-scale wind turbines

Conservation Strategies

- ❖ Implement planned grazing strategies on private lands to reduce exotic cool-season grasses and improve native plant diversity and vigor. Spring burning and spring grazing, sometimes used in combination, can be implemented as initial management practices to reduce exotic grass

- dominance. When exotics are under control, other grazing systems can be implemented.
- ❖ Seek and implement methods of musk thistle control that do not require broadcast spraying of pastures.
 - ❖ Restore the hydrology of playa wetlands
 - ❖ Work with wind energy companies to select turbine sites that minimize fragmentation and impacts to native species. Avoid placing wind turbines in native prairies and woodlands, and on bluff tops where they cause higher bird and bat mortality than on open, flat ground. Wind farms should not be located within the recommended radius of prairie grouse leks and nesting grounds. Turbines can be halted temporarily during peak migration periods for bats and birds. Pre- and post-construction monitoring should be implemented. See Nebraska Game and Parks Commission guidelines for wind energy development.

Tier I At-risk Species

Plants:

None

Animals:

River Otter
Bell's Vireo
Burrowing Owl
Greater Prairie Chicken
Loggerhead Shrike
Trumpeter Swan
Whooping Crane
Regal Fritillary
Married Underwing
Whitney Underwing

Aquatic Communities:

Headwater, Warm Water Stream
Mid-order, Warm Water River

Terrestrial Communities:

Cottonwood-Peachleaf Willow Riparian Woodland
Dry Upland Bur Oak Woodland
Sandbar Willow Shrubland
Riparian Dogwood-False Indigobush Shrubland
Buckbrush Shrubland
Freshwater Seep
Playa Wetland*
Cattail Shallow Marsh
Reed Marsh

Loess Mixed-grass Prairie*
Perennial Sandbar
Sandbar/Mudflat

* Priority for conservation in this BUL