



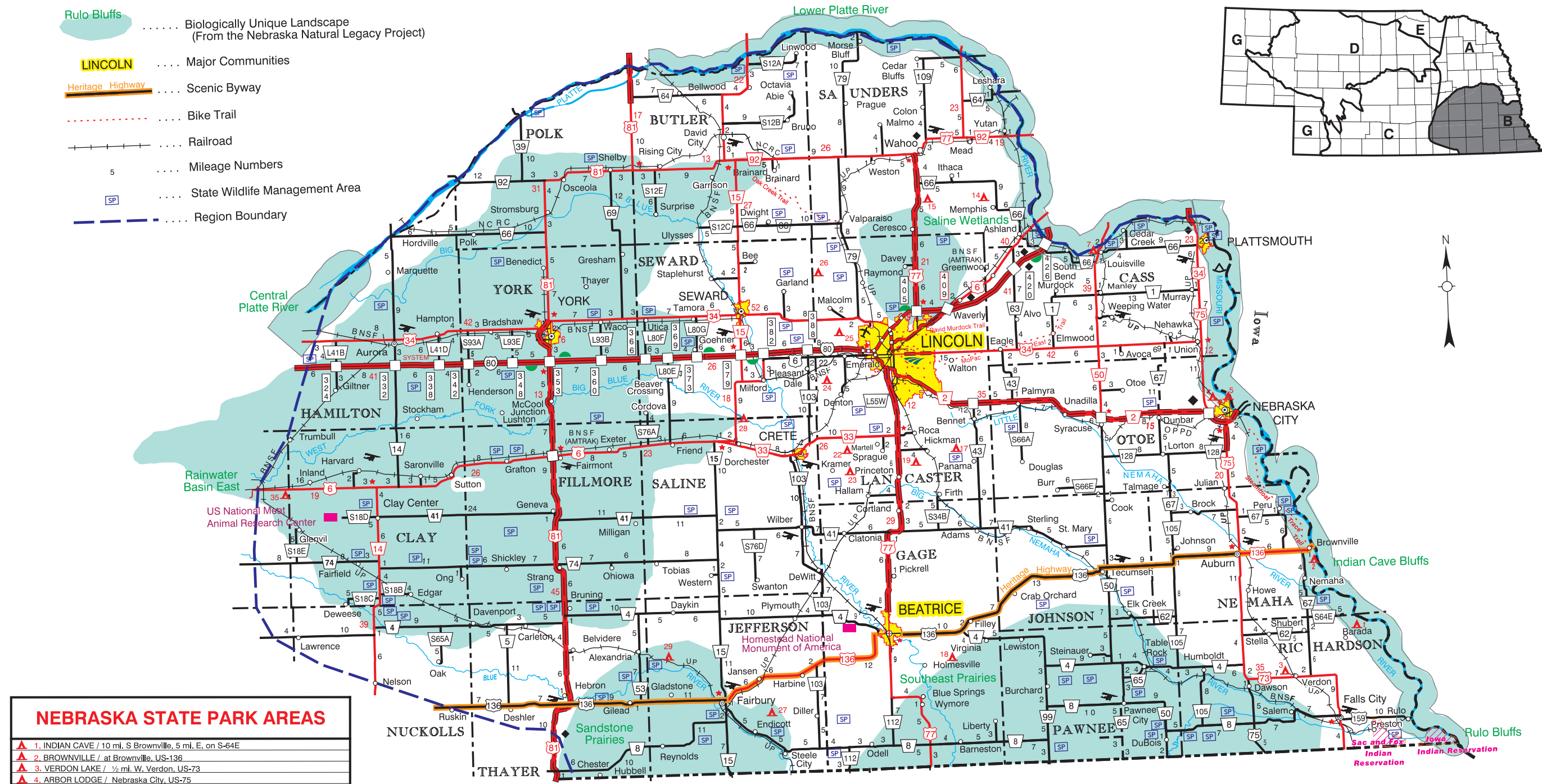
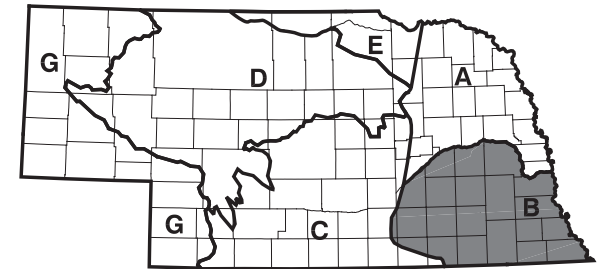
Nebraska Department of Roads

PLAN FOR THE ROADSIDE ENVIRONMENT

Landscape Region B

LEGEND

- Rulo Bluffs
- Biologically Unique Landscape (From the Nebraska Natural Legacy Project)
- LINCOLN
- Major Communities
- Heritage Highway
- Scenic Byway
- Bike Trail
- Railroad
- Mileage Numbers
- State Wildlife Management Area
- Region Boundary



NEBRASKA STATE PARK AREAS	
▲ 1. INDIAN CAVE / 10 mi. S Brownville, 5 mi. E. on S-64E	
▲ 2. BROWNVILLE / at Brownville, US-136	
▲ 3. VERDON LAKE / ½ mi. W. Verdon, US-73	
▲ 4. ARBOR LODGE / Nebraska City, US-75	
▲ 5. RIVERVIEW MARINA / at Nebraska City, US-75	
▲ 14. MEMPHIS LAKE / at Memphis, N-63	
▲ 15. PIONEER / 3 ½ mi. N. Ceresco, US-77	
▲ 17. WAGON TRAIN LAKE / 2 mi. E. Hickman	
▲ 18. ROCKFORD LAKE / 7 mi. E. N-4, 2 mi. S. Beatrice	
▲ 19. STAGECOACH LAKE / 1 mi. S., ½ mi. W. Hickman	
▲ 22. BLUESTEM LAKE / 2 ½ mi. W. Sprague, N-33	
▲ 23. OLIVE CREEK LAKE / 1 ½ mi. S.E. Kramer	
▲ 24. CONESTOGA LAKE / 2 mi. N. Denton, S-55A	
▲ 25. PAWNEE LAKE / 2 mi. N., 1 ½ mi. W. Emerald, US-6	
▲ 26. BRANCHED OAK LAKE / 3 ½ mi. N. Malcolm, S-55M	
▲ 27. ROCK CREEK STATION SHP & SRA / 6 mi. E. Fairbury	
▲ 28. BLUE RIVER / 5 mi. N. Dorchester, US-6 or N-15	
▲ 29. ALEXANDRIA LAKES / 4 mi. E. Alexandria	
▲ 35. DLD / 3 mi. E. Hastings, US-6	

Boundaries (indicated on map) - This region includes all or part of 22 counties: Cass, Otoe, Nemaha, Johnson, Pawnee, Richardson, Lancaster, Saunders, Gage, Butler, Seward, Saline, Jefferson, Thayer, Fillmore, York, Polk, Hamilton, Clay, and small parts of Adams, Nuckolls, and Webster. NDOR District 1 is entirely in this Region as well as a portion of NDOR District 4.



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Description – Region “B”

Environmental Components

- **Climate**

- Plant hardiness zone – This region is entirely within Zone 5 of the USDA Plant Hardiness Zone Map with a range of annual minimum temperatures between -10 and -20 degrees Fahrenheit.
- Annual precipitation – Annual precipitation in this region is the highest in the state, ranging from 28” to 36” in the southeast corner. Three-fourths of this precipitation comes between April and September.

- **Landform** – A combination of nearly level to gently rolling glaciated plains and hilly loess plains. Along the Missouri River, the terrain includes bluffs, river terraces and floodplains. Along the Platte River is a broad flat floodplain with scattered sandpits.

- **General soil types** – Region “B” is primarily composed of silt loam with clay subsoil. The Missouri Valley soils are a mix of sand, silt, and clay that are poorly drained in some areas. Rising from the valley are loess hills of highly erodible silt. The hills transition to less silt over clay subsoil. This glacial till (clay) is exposed in some areas and tends to be poorly drained. In the west, the loess mantle is thinner with more clay exposed in the Rainwater Basin.

- **Hydrology**

- Rivers and streams– Region “B” contains stretches of two major rivers. The Missouri river forms the eastern boundary and is the states largest river. The Platte River is a classic prairie river and marks the northern boundary of this landscape region. A mid-sized, shallow, braided river with sandbars common within the channel. Most of the river floodplain is crop ground with some scattered wet meadows and marshes. Other rivers in the Region include the Big Blue, the Big and Little Nemaha Rivers and a small portion of the Little Blue River. Many streams in this region are degrading and unstable.
- Wetlands – There are several types of wetlands including saline wetlands and Todd Valley playa. Eastern saline wetland occur within the floodplains of Salt Creek and its tributaries in Lancaster and Saunders Counties. The Todd Valley playas are seasonally and temporarily flooded areas in an ancient valley of the Platte termed the Todd Valley. They include small, clay-lined closed depressions located in loess soils.

Rainwater basins south of the Platte River in the western portion of this region are significant for waterfowl needs.



- **Plant Communities**

- Herbaceous – Tallgrass prairie remnants occur on some of the bluff tops and west-facing slopes along the Missouri River area. These have been reduced and

degraded by shrub and tree encroachment due to lack of wildfires. Upland tallgrass prairie is dominated by big bluestem, indiangrass, switchgrass and Canada wildrye. Hundreds of species of wildflowers and other forbs contribute to a diverse plant composition. Examples of these include goldenrod, blazing star, sky blue aster and purple coneflower

- Woody – Most native woodlands are deciduous forests of oaks, hickories, basswood and black walnut found along bluffs of the Missouri River. This region has the highest diversity of eastern forest species in the state. Cottonwoods, willows, boxelders and American elm dominate wetter floodplain woodlands in the region. Eastern red cedar is becoming invasive in some areas, especially prairie, pasture, and rangeland areas. Control of seed-producing trees may be necessary in these areas.
- Invasive plants – Bromegrass, Canada thistle, leafy spurge and red cedar are examples of invasive species steadily encroaching on prairie remnants, pastures and the roadsides. Phragmites, tamarix, and Reed’s canarygrass are examples of the invasives threatening the stream and river courses, as well as wetlands.
- Protected plants – The following plants are listed in this region as threatened or endangered by state and federal agencies:

Western Prairie Fringed Orchid (*Platanthera praeclara*)

Small White Lady’s Slipper Orchid (*Cypripedium candidum*)

Saltwort (*Salicornia rubra*)

American Ginseng (*Panax quinquefolium*)

- **Animals** – The following species are listed in this region as threatened or endangered by state and/or federal agencies:

Southern Flying Squirrel
(*Glaucomys volans*)

Salt Creek Tiger Beetle
(*Cicindela nevadica lincolniiana*)

Lake Sturgeon
(*Acipenser fulvescens*)

Pallid Sturgeon (*Scaphirhynchus albus*)

Sturgeon Chub (*Macrhybopsis gelida*)

Topeka Shiner (*Notropis topeka*)

Bald Eagle (*Haliaeetus leucocephalus*)

Interior Least Tern

(*Sterna antillarum althalassos*)

Piping Plover (*Charadrius melodus*)

Massasauga (*Sistrurus catenatus*)

Scaleshell Mussel (*Leptodea leptodon*)

- **Biologically Unique Landscapes and Habitats** (as defined in the Nebraska Natural Legacy Project) are areas of the state that have been identified as key habitats that offer the highest likelihood that they will persist over the long term. These areas were selected based on known occurrences of ecological communities and at-risk species and offer the best opportunity for conserving the full array of biological diversity in Nebraska. Disturbance to these areas should be minimized. Habitat preservation in the landscape design is highly desirable. Opportunities to enhance and restore critical habitat should be considered in these areas.



Listed here are the Biologically Unique Landscapes that occur in this landscape region:

Lower Platte River - the corridor from approximately the Butler/Saunders county line, east to the mouth at the Missouri River;. Missouri River - the Missouri River channel and floodplain from the confluence with the Platte River, south to the Nebraska/Kansas border; Indian Cave Bluffs - steep bluffs of the Missouri River in Nemaha and Richardson Counties; Rulo Bluffs - Steep bluffs in the southeast corner of Richardson County; Saline Wetlands - the floodplains of Salt Creek, Little Salt Creek and Rock Creek and surrounding uplands, primarily in northern Lancaster County; Sandstone Prairies - this includes the bluffs and breaks along the Little Blue River and Rose Creek in Jefferson and Thayer Counties; Southeast Prairies - rolling hills of western Richardson, Pawnee and southern Johnson and southern Gage Counties. Some prairie remnants are scattered in the region; Rainwater Basin-East - flat-to-gently rolling plains south of the Platte River primarily in Clay, Fillmore, Hamilton, and York Counties.

Sociological Components

- **Area history** - Once covered by tallgrass prairie with scattered oak-hickory forests along the stream valleys in the southeast, over 90% of the region is now used for crop land agriculture or forage for livestock. Many pioneer trails went through this area for the early settlement because of landings along the Missouri River at such locations as Brownville. The land use changes were initiated with this migration and by the Homestead Act.
- **Economic features** - Primarily agriculture with some scattered light manufacturing. Government and education are major economic generators in the Lincoln area.
- **Land use / Ag type** - Predominantly crop land for corn and soybeans. Mostly dry land farming with limited irrigation. Farms continue to become fewer in number and larger. Increased rural residential acreage development around major communities. Scattered livestock pasture. Federal land in this region includes: Homestead National Monument in Gage County and U.S. Meat Animal Research Center in Clay County.

The sovereign nations of the Sac, Fox, and the Iowa Indian Reservations are in this region. The Ponca Tribe of Nebraska maintains offices and services in this region.

- **Major communities** - Lincoln (State Capitol), Beatrice, Nebraska City, Falls City, Crete, Plattsmouth, Wahoo, York, Seward, and Fairbury. The Ponca Tribe of Nebraska maintains offices and services in this region.

- **Transportation**

Major highways - include portions of: I-80, N-92, N-2, N-136, US-77, US-75, US-73, N-50, N-15, N-67

Railroads - Union Pacific, Nebraska Central Railroad Company and Burlington Northern Santa Fe

Scenic highways - "Heritage Highway" US Highway 136 from Brownville on west, ending in District 7

Bike routes - Steamboat Trace Trail from Nebraska City to Brownville along the Missouri River; MoPac East Trail from Lincoln, east to Elmwood; Oak Creek Trail from near Brainard to Valparaiso



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Corridor Objectives - Landscape Region “B” Corridors

Metropolitan Corridor:

Wildlife habitat should not be added into this corridor type. However, in this landscape region, natural wildlife corridors cross through the metropolitan corridors in Lincoln and Beatrice. Salt Creek, Oak Creek and Antelope Creek are such corridors in Lincoln. These areas involve threatened or endangered species, in addition to other wildlife. Appropriate methods to protect these species and maintain separation from the roadways will be needed. In Beatrice, corridors in conjunction with the Big Blue River and the Indian Creek must be considered. Adequate space for passage under the roadway right-of-way and directional or containment measures with appropriate plants or other techniques may be needed.

There is a need to prevent water pollution where the roadway corridor crosses natural wildlife corridors, and especially in the habitat area for the endangered Salt Creek Tiger Beetle.

Community Edge and Center Corridors

Landscape Region “B” may present the greatest diversity in community sizes for this corridor type. The potential exists for future regulation of water quality for stormwater runoff. This will require innovative design and careful plant selection for pollutant removal areas and techniques that are both effective and appropriate to protect the biodiversity of within these areas.

Rural Interstate/Expressway Corridor

Within Landscape Region “B”, this corridor type is also a primary daily commuter route. This is a concern in areas crossing the Platte River because of threatened and endangered species such as the pallid sturgeon in this region. Maintaining good water quality will require innovative design and careful plant selection for pollutant removal areas that are both effective and appropriate to the landscape region.

The Saline Wetlands north of Lincoln along Hwy. 77 are another special area, unique to this region, where pollutant removal from waters entering these wetlands is desirable.

Rural Highway Corridor

Much of the area adjacent to this corridor is crop ground. However, the biologically unique area described as the Southeast Prairies (in the southern part of this region) contains scattered remnants of tall grass prairie. The highway corridor gains special importance for wildlife as a passage between these areas and secondarily as habitat itself. This use must be reviewed and taken into account in the landscape design in this landscape region. Selected plantings may be used to improve safer movement for species specific to these prairie areas and keep them away from the roadways.

Scenic Corridor

Within Landscape Region “B” there is only one designated scenic highway - “Heritage Highway” which is Highway 136 from Brownville, west across the region.

The overriding landscape objective in this corridor type is to preserve the existing views and scenic qualities that brought rise to the scenic designation. All work within this corridor should be in context with the adjacent surroundings. Screening of objectionable views needs to be strongly considered in this corridor type, along with the framing of special views. This portion of Landscape Region “B” has the state’s most diverse selection of native plant material.

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Typical Plant Species for Use in Landscape Region “B”

The listings to follow are recommendations of native species of plant material currently available for use in this landscape region. Region “B” has the largest and most diverse selection of plant species in Nebraska and this list is expected to broaden as the demand for additional species increases in the future.

Shrubs

Botanical Name	Common Name
<i>Amorpha fruticosa</i>	False Indigo
<i>Cephalanthus occidentalis</i>	Buttonbush
<i>Cornus racemosa</i>	Gray Dogwood
<i>Cornus sericea</i>	Redosier Dogwood
<i>Corylus americana</i>	Hazelnut
<i>Euonymus atropurpureus</i>	Wahoo Euonymus
<i>Prunus americana</i>	American Plum
<i>Prunus virginiana</i>	Common Chokecherry
<i>Rhus trilobata</i>	Skunkbush Sumac
<i>Ribes aureum</i>	Golden Current
<i>Ribes odoratum</i>	Clove Currant
<i>Rosa arkansas</i>	Arkansas Rose
<i>Salix exigua</i>	Sandbar Willow
<i>Sambucus canadensis</i>	Elderberry
<i>Symphoricarpos albus</i>	Common Snowberry
<i>Symphoricarpos occidentalis</i>	Western Snowberry
<i>Symphoricarpos orbiculatns</i>	Coralberry
<i>Viburnum lentago</i>	Nannyberry Viburnum

Trees

Botanical Name	Common Name
<i>Acer negundo</i>	Box Elder
<i>Acer saccharinum</i>	Silver Maple
<i>Catalpa speciosa</i>	Northern Catalpa
<i>Celtis occidentalis</i>	Hackberry
<i>Cercis canadensis</i>	Eastern Redbud
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Gleditsia triacanthos (limited use)</i>	Honey Locust
<i>Gymnocladus dioica</i>	Kentucky Coffeetree
<i>Juglans nigra</i>	Black Walnut
<i>Malus ionensis</i>	Prairie Crabapple
<i>Ostrya virginiana</i>	Eastern Hop Hornbeam
<i>Platanus occidentalis</i>	American Sycamore
<i>Populus deltoides</i>	Eastern Cottonwood
<i>Prunus serotina</i>	Black Cherry
<i>Quercus alba</i>	White Oak
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus muhlenbergii</i>	Chinkapin Oak
<i>Quercus rubra</i>	Northern Red Oak

Trees (Continued)

Botanical Name	Common Name
<i>Quercus velutina</i>	Black Oak
<i>Salix amygdaloides</i>	Peach Leaf Willow
<i>Salix nigra</i>	Black Willow
<i>Tilia americana</i>	Linden
<i>Ulmus americana</i>	American Elm

Grasses

Botanical Name	Common Name
<i>Andropogon gerardii</i>	Big Bluestem
<i>Bouteloua curtipendula</i>	Sideoats Grama
<i>Bouteloua gracilis</i>	Blue Grama
<i>Buchloe dactyloides</i>	Buffalograss
<i>Calamagrostis canadensis</i>	Bluejoint
<i>Elymus canadensis</i>	Canada Wildrye
<i>Elymus trachycaulus</i>	Slender Wheatgrass
<i>Elymus virginicus</i>	Virginia Wildrye
<i>Koeleria macrantha</i>	Prairie Junegrass
<i>Panicum virgatum</i>	Switchgrass
<i>Pascopyrum smithii</i>	Western Wheatgrass
<i>Schizachyrium scoparium</i>	Little Bluestem
<i>Sorghastrum nutans</i>	Indiangrass
<i>Spartina pectinata</i>	Prairie Cordgrass
<i>Sporobolus heterolepis</i>	Prairie Dropseed
<i>Tripsacum dactyloides</i>	Eastern Gamagrass

Sedges

Botanical Name	Common Name
<i>Carex brevior</i>	Fescue Sedge
<i>Carex gravida</i>	Heavy Sedge

Legumes

Botanical Name	Common Name
<i>Amorpha canescens</i>	Leadplant
<i>Astragalus canadensis</i>	Canadian Milkvetch
<i>Chamaecrista fasciculata</i>	Partridge Pea
<i>Dalea candida</i>	White Prairie Clover
<i>Dalea purpurea</i>	Purple Prairie Clover
<i>Desmanthus illinoensis</i>	Illinois Bundleflower
<i>Lespedeza capitata</i>	Roundhead Lespedeza



Wildflowers

Botanical Name	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Anemone canadensis</i>	Canada Anemone
<i>Asclepias tuberosa</i>	Butterfly Milkweed
<i>Aster laevis</i>	Smooth Blue Aster
<i>Aster novae-angliae</i>	New England Aster
<i>Callirhoe involucrata</i>	Purple Poppy Mallow
<i>Ceanothus americanus/herbaceus</i>	New Jersey Tea
<i>Cleome serrulata</i>	Rocky Mountain Bee Plant
<i>Echinacea angustifolia</i>	Black Samson
<i>Gaillardia pulchella</i>	Indian Blanket Flower
<i>Helianthus maximiliani</i>	Maximilian Sunflower
<i>Helianthus pauciflorus</i>	Stiff Sunflower
<i>Liatris punctata</i>	Dotted Blazing Star
<i>Liatris pschnostachya</i>	Thickspike Gayfeather
<i>Linum lewisii</i>	Blue Flax
<i>Monarda fistulosa</i>	Wild Bergamot
<i>Oligoneuron rigidum</i>	Stiff Goldenrod
<i>Penstemon grandiflorus</i>	Shell-leaf Penstemon
<i>Ratibida columnifera</i>	Upright Prairie Coneflower
<i>Ratibida columnifera, red</i>	Mexican Red Hat
<i>Ratibida pinnata</i>	Grayhead Coneflower
<i>Rosa arkansana</i>	Prairie Rose
<i>Rudbeckia hirta</i>	Black-eyed Susan
<i>Rudbeckia laciniata</i>	Golden Glow
<i>Salvia azurea</i>	Pitcher Sage
<i>Senecio plattensis</i>	Prairie Ragwort
<i>Silphium laciniatum</i>	Compass Plant
<i>Solidago missouriensis</i>	Missouri Goldenrod
<i>Tradescantia bracteata</i>	Longbract Spiderwort
<i>Verbena hastata</i>	Blue Vervain
<i>Vernonia baldwinii</i>	Ironweed

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