

you are walking through

THE DRY PRAIRIE

A dry prairie is a natural plant community of low shrubs and grasses occupying vast, level expanses of land. The open dry prairie is essential habitat for several rare plants and animals.

Can you find these native plants in Osage Park's dry prairie?



Indiangrass
Sorghastrum nutans



Orange Coneflower
Rudbeckia fulgida



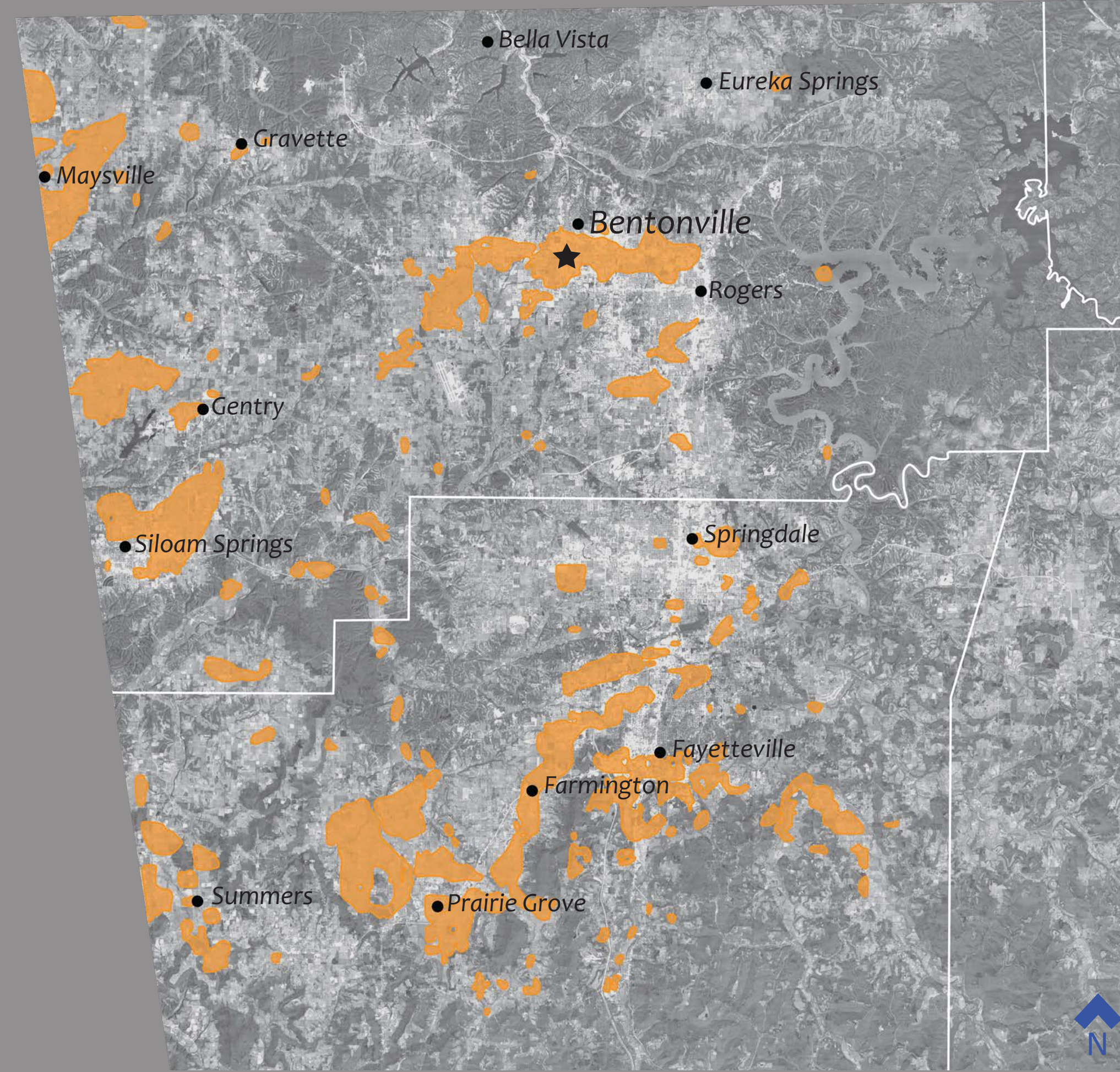
Big Bluestem
Andropogon gerardi



Pale Purple Coneflower
Echinacea pallida



Butterfly Weed
Asclepias tuberosa



Pre-Settlement Extent Of Dry Prairie In NWA

The historic range of dry prairie is difficult to determine. Development and conversion of prairies to agriculture during the 20th century greatly reduced the extent of this ecosystem. Large, high quality dry prairie survives mainly on a few publicly-owned lands. Although the dry prairie here at Osage Park is small, it provides important habitat for common and rare plants and animals.

The honey bee's relationship with the purple coneflower is a story of support and survival.



Echinacea is a wonderful plant for pollinators. It has a big landing pad and bright color in the range seen by bees, butterflies, and birds. Plus, it has great nectar and pollen, making it well worth a bee's visit. Coneflowers attract many species of bees, including the green metallic bee, bumblebees, and honey bees.

What can you do to help?

Bees should be a welcome guest in your garden.

Bees play an important role in our ecosystem. The benefits they provide to farmers, gardeners, wild plants, and our own food supply are enormous. It's been said that if bees die, we die. Despite their importance, many bee species are declining. Roughly a quarter of our native bee species are now endangered. This is primarily due to herbicides killing wildflowers and the destruction of nesting habitats.



you are walking through

THE WET PRAIRIE

A place of mystery, beauty, and life. Here at Osage Park we have several types of habitat, all based on the amount and type of water they receive, including two types of prairie: dry and wet. The difference is obvious – **water!**

Can you find these native plants in Osage Park's wet prairie?



Prairie Blazing Star
Liatris pycnostachya



Soft Rush
Juncus effusus



Blue Vervain
Verbena hastata



Fox Sedge
Carex vulpinoidea



Swamp Milkweed
Asclepias incarnata

- Flow Direction
- Flood Zone
- Flood Water
- Open Water

- Green Infrastructure:
- Overflow Oval
 - Aquatic Fringe



Green Infrastructure Strategies

The design of Osage Park uses the landscape to protect against flooding and improve water quality. Flood events vary from minor to major. The Osage Park wet prairie is designed as 'soft infrastructure'. It floods, soaks up water, and slowly releases it, decreasing flooding downstream.

Prairie plants have massive root systems that may reach ten feet deep. These long roots:

- slow runoff, store water, and decrease flooding impact
- reduce soil loss and rebuild the soil structure
- act as a natural filter that cleanses water

The story of the monarch and the milkweed.



There is a symbiotic relationship between native milkweed plants and the monarch. Monarch butterflies enjoy the nectar from the flowers and help pollinate the milkweed. Monarchs lay eggs **ONLY** on the undersides of milkweed leaves and their green, striped caterpillars feed on the leaves. The milkweed leaves they eat make monarch caterpillars and the adult butterflies slightly toxic and unpalatable to most predators. Without the milkweed, we lose the monarch.

What can you do to help?

Plant a pollinator garden with swamp milkweed.

Monarch butterflies (*Danaus plexippus*) are native to North and South America. They migrate here in spring and search for milkweed to lay eggs. They can't survive our cold winters, so each autumn they migrate thousands of miles back to Mexico. To help monarchs you can plant milkweed. When the monarchs return next spring, the bright, beautiful flowers will attract them to their favorite plants- in your garden.

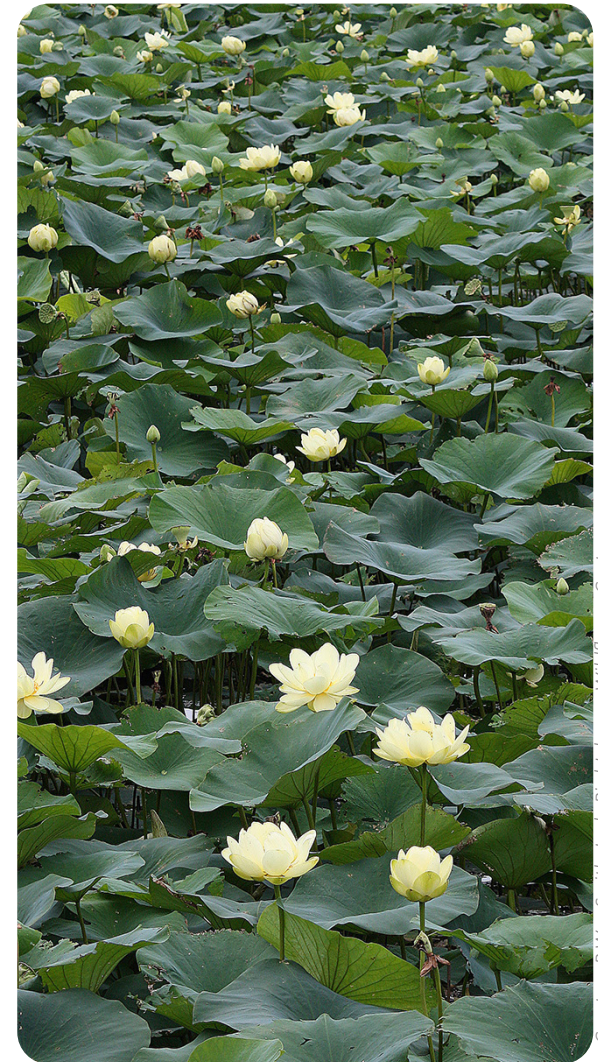


you are walking over

THE BEAVER WETLAND

Dams (or impoundments) built by beavers can be beneficial in restoring wetlands. Such wetland benefits include flood control downstream, increasing biodiversity, and water cleansing, both by the breakdown of toxins such as pesticides and the retention of silt by beaver dams.

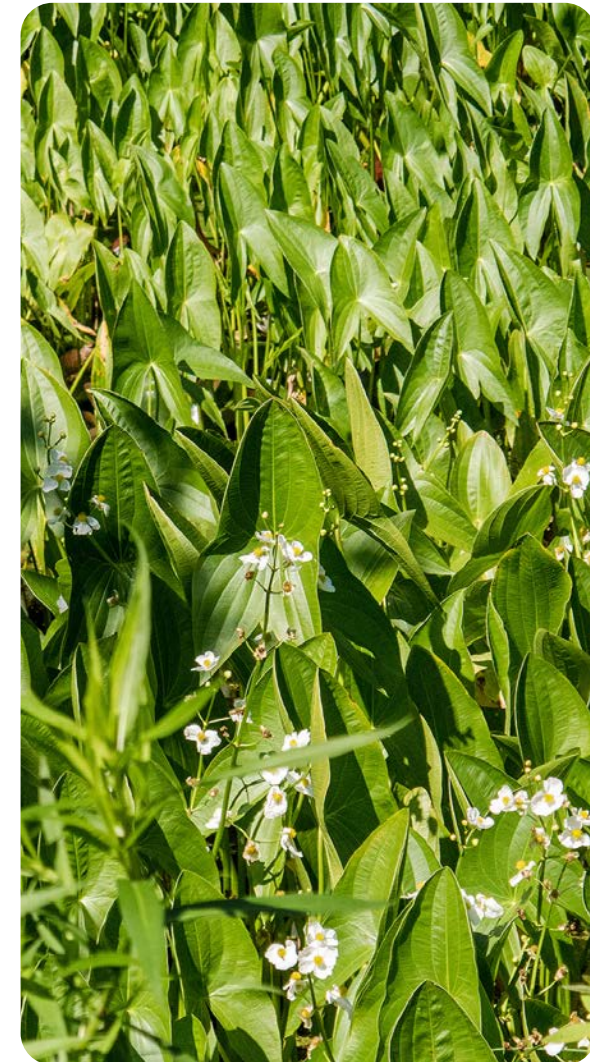
Can you find these native plants in Osage Park's beaver wetland?



American Lotus
Nelumbo lutea



Cattail
Typha latifolia



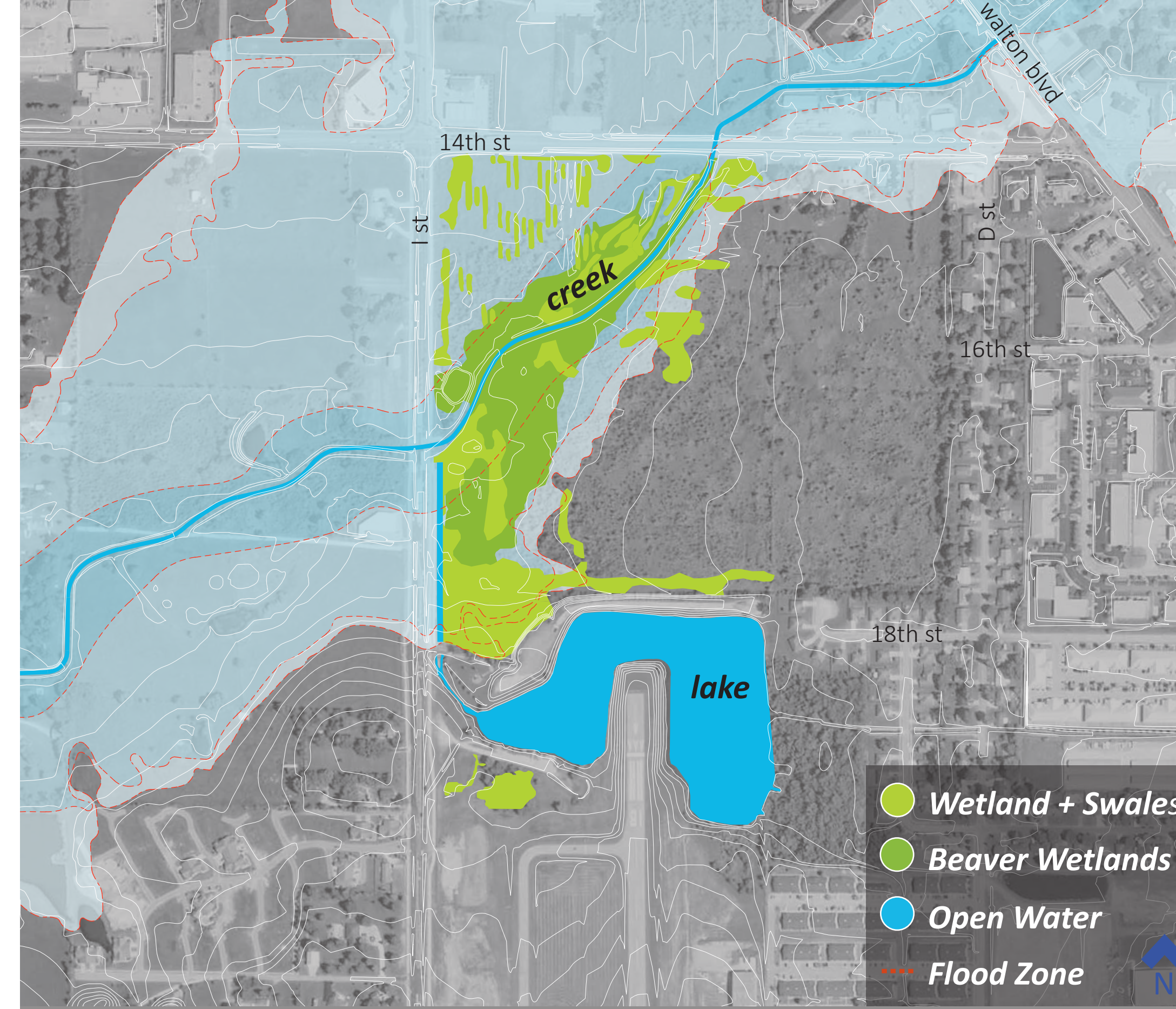
Broadleaf Arrowhead
Sagittaria latifolia



Rose Mallow
Hibiscus lasiocarpus



Common Persimmon
Diospyros virginiana



Conditions prior To Osage Park

The wetlands created by beaver dams on this site provide habitat for many species, including several of conservation concern. These wetlands also slow stormwater runoff, improve water quality, help recharge groundwater aquifers, and reduce flooding downstream.

Beavers start construction by driving branches and logs vertically into the mud of a streambed to form a base. Then sticks, bark, mud, rocks, grass, leaves, and masses of plants are used to build the dam. It takes a beaver about twenty minutes to cut down a six-inch diameter tree.

What do beavers eat?

A beaver's diet is primarily made of tree bark and cambium (the soft tissue that grows under the bark of trees). They also eat roots, buds and other water plants and will travel up to 100 feet from water in search of food. Beavers self-regulate their population according to their food supply. When the food supply is exhausted, the beaver relocate, their dams deteriorate, the ponds eventually drain and trees and shrubs start growing in the rich soil. A new cycle starts and eventually the food and beaver will return.



Beaver - Human Encounters

Beavers can cause property damage such as cutting down trees. The Beaver Institute, Inc., helped develop a beaver management plan for Osage Park, including two techniques used to minimize damage to trees and riparian vegetation:

- Beaver Deceivers: these pipes allow high water to drain off, keeping the pond at one level so the beavers don't feel the need to increase the height of their dams, which can drown nearby plants
- Tree Protection: add wire mesh around the base of selected trees



you are walking along

THE LAKE SHORELINE

Aquatic plants are an important part of freshwater ponds. They create a balanced ecosystem and keep ponds, lakes, and streams healthy while adding beauty. A thick lake fringe also deters waterfowl from congregating as ducks and geese like to move freely from shortgrass to water.

Can you find these native plants along Osage Park's lake shoreline?



Woolgrass
Scirpus cyperinus



Spikerush
Eleocharis montevidensis



Great Blue Lobelia
Lobelia siphilitica

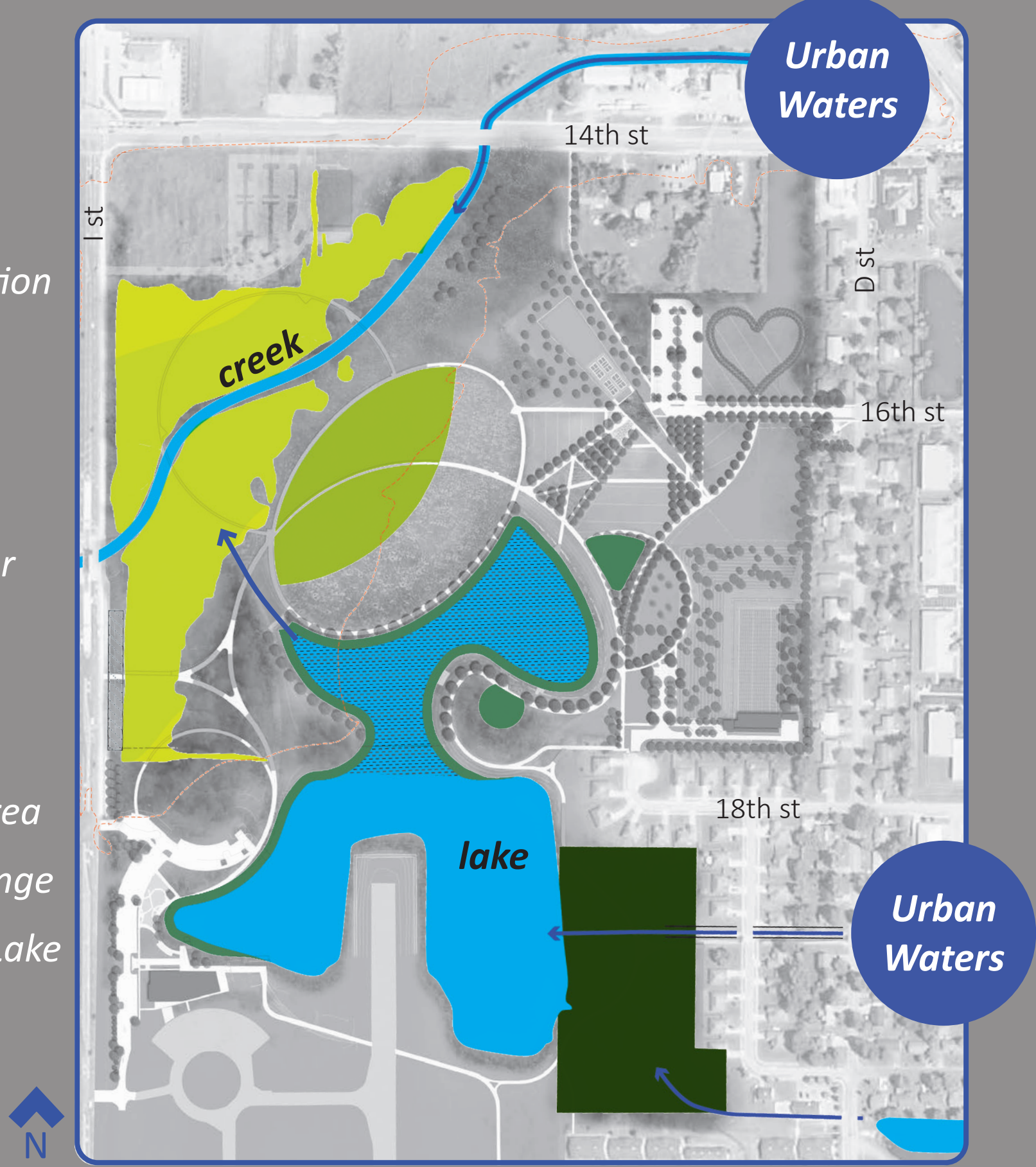


Pickerelweed
Pontederia cordata



Cardinal Flower
Lobelia cardinalis

- Existing:**
- Flow Direction
 - Flood Zone
 - Wetland
 - Woodland
 - Open Water
- Modified:**
- Riparian Area
 - Aquatic Fringe
 - Expanded Lake



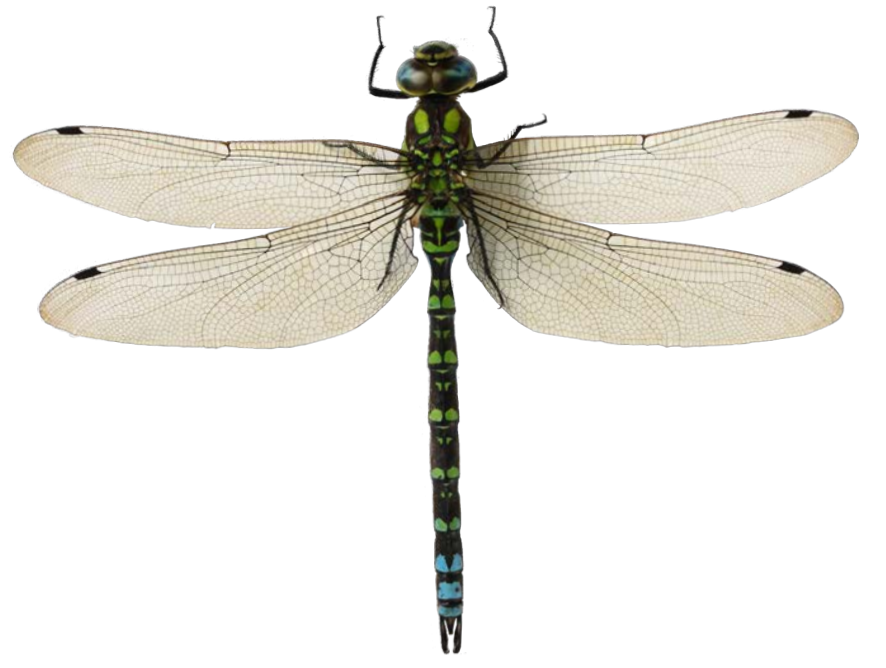
Site Hydrology

Shoreline plants (also called marginal plants) can grow in several inches of standing water. The roots attach to the muddy soil, stabilizing the bank and reducing erosion. Several species of aquatic plants (such as bulrushes and rushes) have purifying capabilities. These species remove contaminants in the water resulting in a clearer, cleaner, healthier pond.

Shoreline plants also:

- reduce the amount of harmful algae by out-competing algae for nitrogen in the water
- use waste materials from fish, providing a natural water filtration mechanism.

Dragonflies catch thousands of mosquitos and eat them in flight.



No other insects symbolize summer quite like this group of colorful, primitive-looking predatory insects. Long before the dinosaurs roamed Earth, dragonflies took to the air. They have been flying for over 300 million years. They can fly at speeds of 30 miles per hour, which makes them some of the fastest insects in the world. Plus, because they control each wing independently, these amazing insects can stop, hover, or turn on a dime.

What can you do to help?

Put away the mower and leave the pond fringes fuzzy.

Plants are vital to a healthy aquatic ecosystem. They provide food and habitat for the creatures living in the pond. For example, dragonflies begin life as aquatic larva living underwater until they crawl up emergent aquatic plants, such as the pickerelweed. Then they attach to the plant to begin their metamorphosis into adult dragonflies.

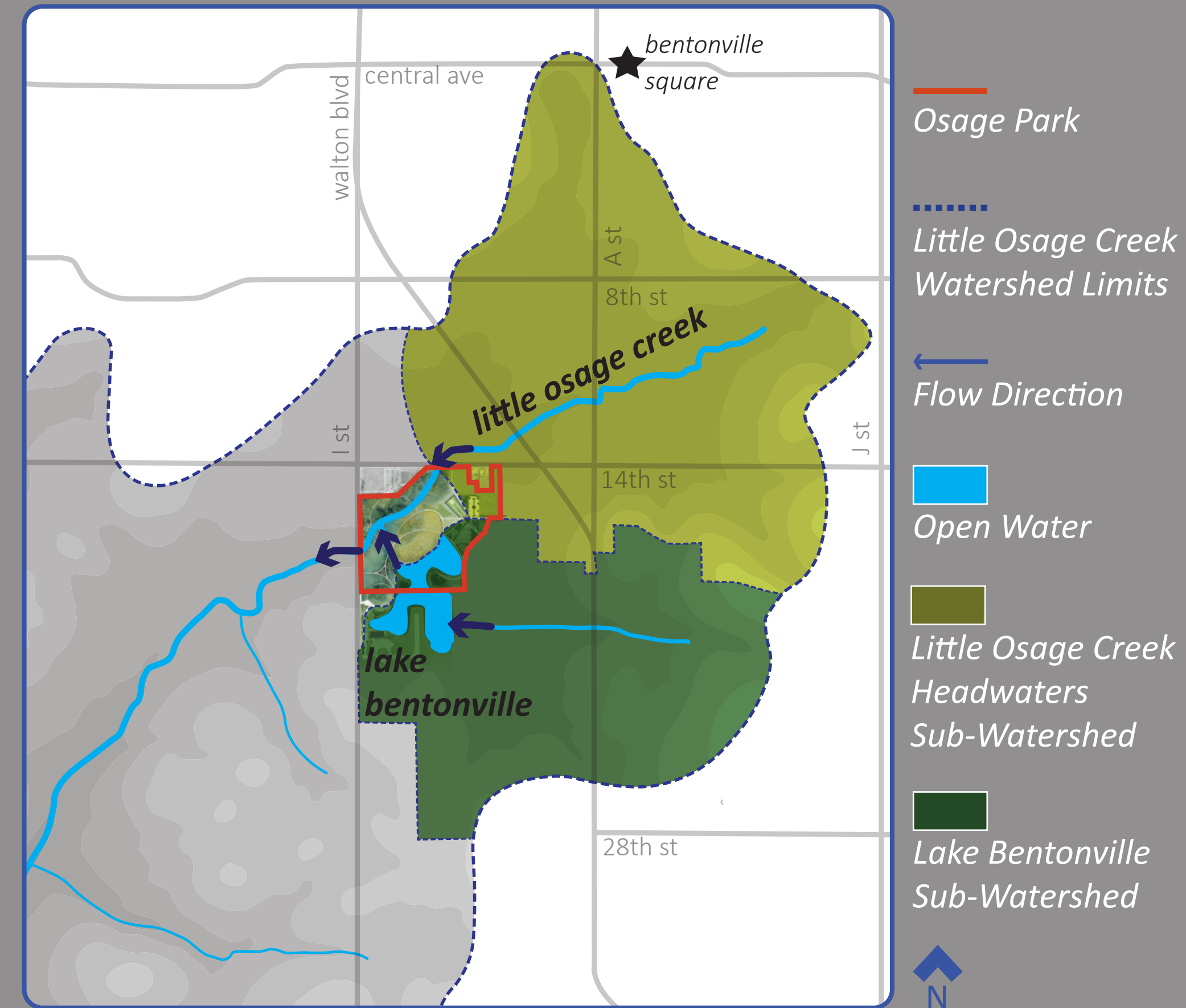


you are standing within an

URBAN WATERSHED

It doesn't matter how far you live from a stream, river, or lake, you live in a watershed. A watershed is an area from which all water drains to a shared destination - a river, pond, stream, lake, or estuary. Here at Osage Park you are standing within the Illinois River Watershed.

Little Osage Creek flows south to the Illinois, the Arkansas, then the Mississippi rivers



Osage Park's Watersheds

Osage Park lies within the Little Osage Creek Watershed. Two smaller sub-watersheds are within this watershed (Lake Bentonville and Little Osage Creek Headwaters). Both are within the central Bentonville area and join here in Osage Park. The Bentonville area has seen massive changes in development over the past 30 years, and waste runoff has intensified. The preserved and enhanced wetland system here at Osage Park acts as a filter, cleansing the water from the urban area before it flows into the Arkansas and Mississippi rivers, and to the many communities along the way.

All our city stormwater leads to living waters.



The Little Osage Creek and beaver-impounded wetlands are important habitats for many species. Biodiversity (the variety of all forms of life) is the main indicator of a healthy watershed and the proper functioning of all ecosystems. Certain birds, such as the Great Blue Heron, are indicators of watershed health. Keep an eye out for these majestic birds in shallow waters searching for food.

What can you do to help?

Work together to keep our watersheds healthy.

- Don't litter and keep trash from accidentally blowing out of your vehicle.
- Reduce the use of pesticides and fertilizers in your garden.
- Reduce hard surfaces around your home and in your neighborhood by using pervious alternatives to asphalt and pavement.
- Get involved with a local stewardship group that conducts stream restoration and monitoring activities in your area.



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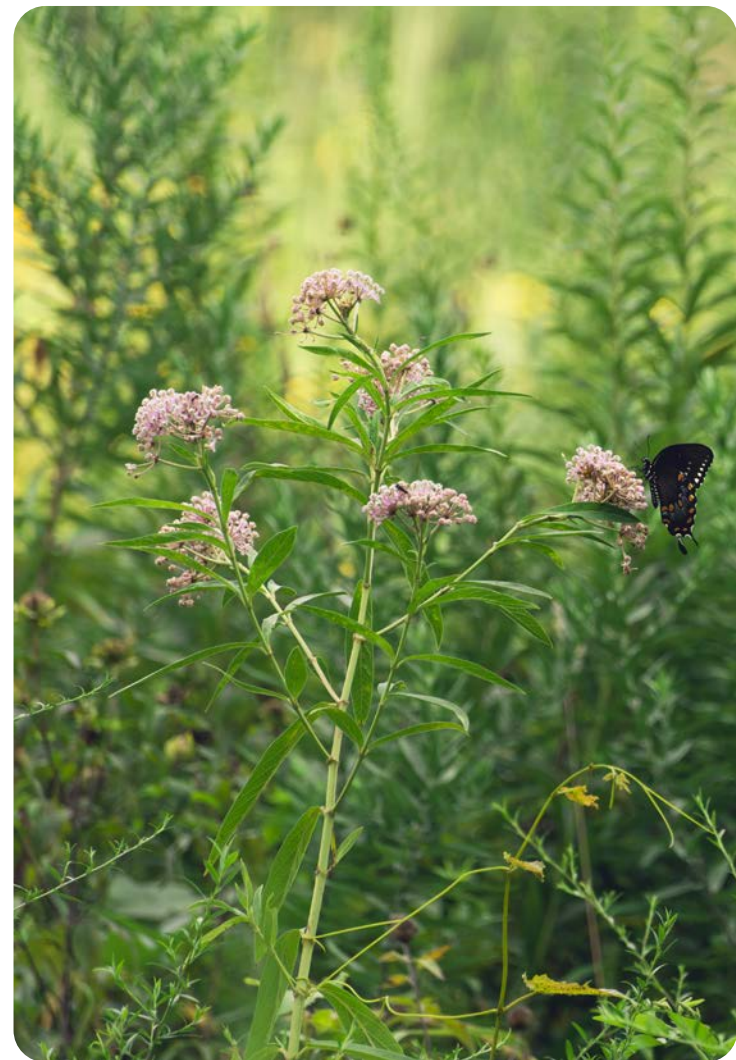
RESTORATIVE LANDSCAPE

“When we try to pick out anything by itself we find that it is bound fast by a thousand invisible cords that cannot be broken, to everything in the universe.” - John Muir’s journal for July 27, 1869

Can you identify the four main landscape zones within Osage Park?



LAKE SHORELINE



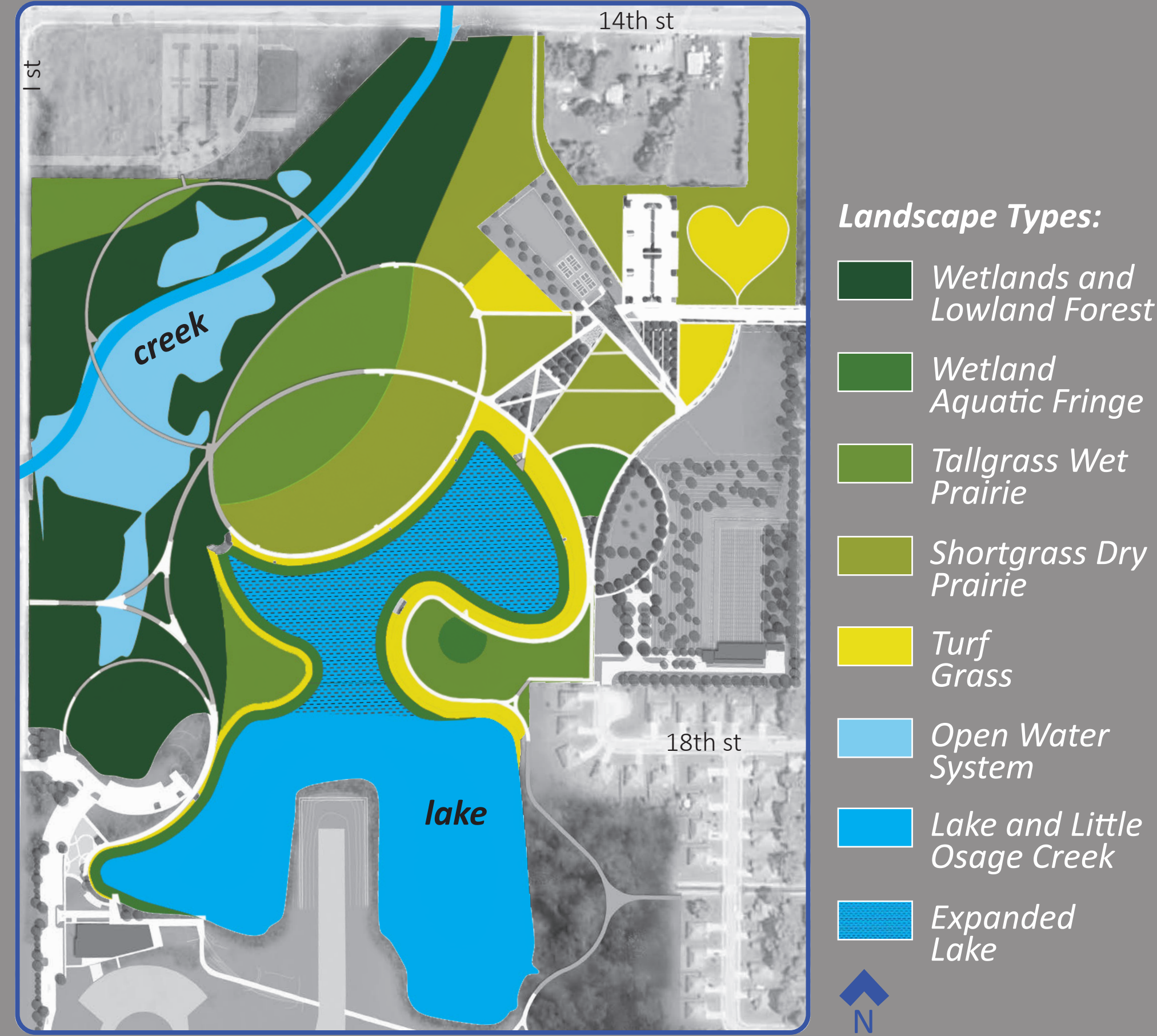
WET PRAIRIE



DRY PRAIRIE



BEAVER WETLAND



Welcome to Osage Park

The diversity of landscapes in this small area will amaze you. Trails lead through prairies, past the lake, and into a natural beaver wetland. Osage Park has been divided into landscape types. Each has a story to tell and an iconic species to help tell it. The stories connect us to the land, to the water, and to the need to care for such places. Throughout the park look for tangible things around you: bees, dragonflies, wildflowers, butterflies, and seeds. Also, sense the invisible: warmth from the sun, wind, flight, and music.

Tiny swamp milkweed seeds catch the wind and take flight.

In fall swamp milkweed pods break open. The tiny seeds are dispersed by the wind, blowing over the landscape seeking the right conditions to germinate and grow. Monarch butterflies depend on the milkweed plant and we depend on the butterfly and many other insects to pollinate the food we eat. Even the smallest seed has great importance and is connected to a network of life.



What can you do to help?

Support sustainability.

Encourage local businesses, developers, institutions, and governments to adopt ‘best management practices’ that protect the environment. Only through sustainable living will we provide rare and declining species, like the honeybee and the monarch butterfly, the habitat and resources they need to survive alongside us.

