Minnesota Settlement, Prairies & Restoration

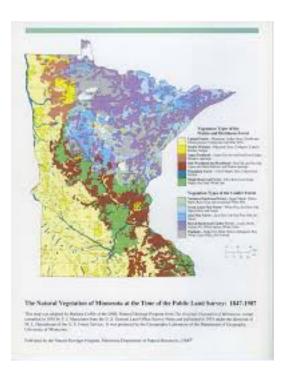
Pre-settlement human history:

Recent archeology shows use by Hopewellian culture from 400 B.C. to 300 A.D. Indigenous groups tied by trade routes from Northeast to Midwest woodlands. They were the mound-builders, known for their unique artwork. Later, the Dakota, Fox, and Sioux indigenous peoples hunted and fished the Lake Pepin area.

Minnesota land surveys were done between 1848-1857 or presettlement.

The United States government set up a Land Survey system in 1785 in order

to help westward settlement. Land surveyors were hired to divide the land into grid-shaped townships and sections. They did so with a chain and link measurement method:chains were 66'long and links were 7.92". They planted posts and markers at the corners of these rectangles. Surveyors also noted existing vegetation and suitability for agriculture. Their hand-written field notes are now safely archived and digitized by the Bureau of Land Management (BLM), who has watched over the General Land Office since 1946. (You may research your property in the actual leatherbound books in the archives at the Minnesota Historical Society, or the digitized records on-line http://www.glorecords.blm.gov. Some Counties also post maps and notes on their websites. Presettlement vegetation is extrapolated from these documents. (See map.)



Frontenac Settlement:

- 1680: Father Louis Hennepin remarks about the beauty of Lake Pepin area.
- 1725: The Count Frontenac explorers set up a post on Sand Point circa with the goal to of heading west to the Pacific.
- 1837: Fur trading post established.
- 1854: A limestone quarry on the SE slope of Point-No-Point provided foundations as far away as New York City.
- 1855: A hunting lodge, St. Hubert's Lodge was built by Israel Garrard.
- 1857: Westervelt & Garrard buy 4000 acres and designated 320 for the town site.
- 1858: Statehood happens. Florence Township established.
- 1859: Village name changed from Westervelt to Frontenac.
 - Frontenac became known for fur trading, logging, limestone & hospitality.
- 1867: A 3-story Lakeside Hotel was the first resort hotel in the upper Midwest.
- 1879-1939: Became a reknown exclusive resort community. A Chicago destination.
- 1956: 200 acres of farmland donated to what became Frontenac State Park.

Frontenac State Park Plan

In 1957, these 2894 acres were designated a state park in Goodhue County, Minnesota. It is classified as a "Natural State Park" which means it is managed to support its rich diversity of plants and animals with minimal recreational development. Of the 156 species of conservation concern within Minnesota's Blufflands landscape, 103 species are found in this park.

Frontenac State Park's 2008 (20-year) management plan recommends to:

- protect and preserve populations of rare native plant species
- · minimize damage to the parkland
- · restore native vegetation and wildlife
- promote public awareness
- coordinate with the State park system
- manage the park for its stopover role in bird migration, a bird watcher's paradise with 260 bird species, including resident and migrating birds.
- develop interpretive area, protect vistas, upgrade camping, remove some sites.
- work with area landowners on conservation and acquire parcels within the park.
- engage citizen volunteers in invasive species control, etc.
- develop an education program: wildflower I.D., birding, fishing, art and music...
- protect cultural resources and pursue partnerships with Native Americans.
- add a seasonal park naturalist for the warm weather season.

Frontenac State Park Vegetation

Pre-settlement Vegetation

The original vegetation of Goodhue County consisted of vast prairies, oak savannas, deciduous forests and emergent marshes. As of the early 1990's, only about 7% of those natural communities still existed in the county. That 7% is mainly located in areas where farming practices could not be implemented (too wet, steep slopes, etc.). Almost all the prairie land was converted into cropland or pasture. Frontenac State Park was once covered with oak openings, a mix of prairie, and a mosaic of woodlands. Prairies occupied the flat, fire-prone plateaus and the sandy valley bottoms in the southeast section of the park. Dry prairies were present at the tops of southwest-facing bluffs within the park. Mesic forests were prevalent on north and east facing slopes. The forests were typically dominated by oak on the upper slopes, with basswood and then sugar maple increasing downslope. The ravines and north facing slopes were protected from fire for woody vegetation to develop and persist. The broad Mississippi River valley and the Wells Creek drainage held a floodplain forest of silver maple and willow, silver maple, elm, green ash, hackberry, cottonwood, basswood, and swamp white oak.

Present Vegetation and Land Use

Frontenac is located where the Eastern deciduous forest meets the Western prairie and thus is the western range edge of many forest species and the eastern range edge of many prairie species. Current vegetation at Frontenac State Park is a product of various factors including slope, aspect, hydrology, disturbance regime, and

land use history. Native plant communities of varying condition cover 51% (1,353 acres) of the park. Developed areas (private in-holdings, campgrounds, trails and admin. areas) total 172 acres or 6% of the land base. The remaining 1,326 acres (46%) is classified as old-field, prairie or savanna reconstruction and leased agricultural land. A survey by Minnesota County Biological Survey ranked approximately 261 acres of the park as of high biodiversity importance. Those outstanding plant communities are present due in part to their location within the landscape where the topography or hydrology protected them from human impacts or because of restoration and mgt.

Restoration

Currently Frontenac State Park staff is in the process of restoring the native plant communities. The native plant communities in the park are important because they serve as a representation of rare and threatened plant communities and habitat in the Bluffland subsection. Prairies cover the bluff tops and the broad dry terraces in the southeast section of the park. A large floodplain forest along with open water and a reed canary grass/cattail marsh occupy the wetland area. Deciduous forests grow on the shallow and erodible soils of the dissected ravines and along the north and east facing slopes of the Mississippi River valley. The ravines and valley slopes have protected the woodlands from the fires that historically swept across the park's upland landscape.

Prairie restoration and management

Land surveys help select species in seed mixes, as do inventories of remnant prairies. Availability of seed determines the final mix. Here seed was hand-collected by the DNR (Big and Little bluestems, Indiangrass & forbs. We are not sure of the origin of their seed or commercial seed. The first Frontenac planting was done in 1988. Management of Frontenac remnant and planted prairies includes prescribed burns.

STATE OF Minnesota Prairie History (pre-settlement to now):

At the time of the public land survey, Minnesota was estimated to contain 18,000,000 acres of prairie landscape. Currently less than 1% is intact. Great interest in prairie restoration began here in the 1970's. In 2010 the Minnesota Conservation Plan, a 25-year strategy (\$3.5B), pulled together a unique partnership to stop the continuing loss and degradation of prairie, grassland, wetland, lake and stream habitats. In 2016, "The Prairie Plan", a 15 year plan, was finalized by Steve Chaplin of The Nature Conservancy. Prairie goals now include:

- permanently protect prairies via acquisition about of 1,000,000 acres,
- restore some 300,000+ acres in corridors and strategic habitats (emphasis on planting corridors to connect fragments),
- enhance existing prairies, grasslands and wetlands via fire and grazing (especially management to minimize invasive threats), and
- incorporate "working lands" best practices within agriculture.

The chance to find a pasqueflower is a right as inalienable as free speech.

Aldo Leopold, 1949

Because of a few state parks like Frontenac and a system of Scientific and Natural Areas (SNAs) throughout Minnesota, this chance is possible!