THE BATTLE CREEK GRASSLAND

Nesting Site for Rare and Declining Bird Species

Background

The Battle Creek grassland is adjacent to Battle Creek Regional Park in Maplewood, Minnesota. It is bounded by the park on the north and west, by Century Avenue on the east and by the Ramsey County Correctional Facility on the south. It is owned by Ramsey County and managed by the Corrections Department. The grassland was farmed by inmates with plantings of brome grass and alfalfa. Other than occasional mowing, it has not been farmed for many years. It encompasses approximately 78 acres, including about 6 acres of forest and a small shrubby wetland.

Why is the grassland important?

The grassland is not "vacant" but a significant habitat and nesting site for rare and declining bird species (see the Appendix). An avian survey conducted by Midwest Natural Resources, Inc., during the 2021 nesting season identified



THE BOBOLINK, A SGCN BIRD IN THE BATTLE CREEK GRASSLAND. PHOTO BY JOHN ZAKELJ, 2021.

HENSLOW'S SPARROW, A MN ENDANGERED SPECIES IN THE BATTLE CREEK GRASSLAND. PHOTO BY CHERYL SCHULTZ, 2023.

eight bird Species of Greatest Conservation Need (SGCN), including the Minnesotaendangered Henslow's Sparrow. The <u>MNR report</u> summed up the significance of the bird species as follows: "Taken individually, the SGCN birds … are regionally uncommon, particularly outside of typical migratory windows. Collectively, they represent a biological assemblage more typical of western grasslands, which is unique for Ramsey County and the greater Twin Cities metropolitan area."

Grasslands are one of the most threatened ecosystems. More than 98% of Minnesota's pre-European-settlement grasslands have been <u>lost</u> to agriculture and development. Unlike wetlands, grasslands have no protection in Minnesota.

The size of this grassland is important. As you can see in the <u>Appendix</u>, research indicates that five "area-sensitive" bird species nest in this grassland. Four of the five, including the Bobolink and Henslow's Sparrow, would almost certainly not nest at this site, resulting in more population declines, if it were fragmented or reduced in size.

Benefitting people and birds

This grassland is unique: It is highly diverse and adjacent to a much-loved, Nature-based, regional park. It helps offset the urban heat island, cleans the air, sequesters carbon, manages stormwater and provides pollinator habitat¹. The national organization Birdability has expressed support for adding small observation sites on the periphery of the grassland where everyone, including people with vision or mobility challenges, could enjoy the beautiful sights and sounds of this unique natural resource.

¹ Estimates from a recently completed study at the University of Minnesota indicate a restored prairie (aka grassland) can sequester 1.14 metric tons of carbon per acre per year. (Markland, T., Carbon Balance and Evapotranspiration Rates of a Restored Prairie and a Conventional Corn/Soybean Rotation, University of Minnesota Digital Conservancy, 2019). Mean Minnesota household emissions are 8.7 tons of greenhouse gases per year. (Fissore, C., et al, Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis-Saint Paul, Minnesota, urban region, Ecological Applications, 21(3): 619–639, 2011). The Natural Capital project also at UMN found natural spaces such as this grassland would maintain nighttime temperatures approximately 0.2°F cooler, would retain approximately three times as much nitrogen and phosphorus run-off as an urban residential development and pollinator abundance would be at least twice as much depending on the amount of pavement, buildings, flora, grasses and pesticides used (Lonsdorf E. et al., Assessing urban ecosystem services provided by green infrastructure: Golf courses in the Minneapolis-St. Paul metro area, Landscape and Urban Planning: 208, 2021).

Ramsey County actions

Ramsey County commissioners, concerned about the affordable housing crisis, are looking for county-owned properties to develop. In August 2021 Ramsey County issued a Request for Developer Interest for the grassland and the nearby golf course. No proposals were received for the grassland. In the words of the Land Use & Planning Program Director for the Friends of the Mississippi River, "We can't make the mistake of responding to our housing crisis by worsening our environmental crisis."

Ramsey County staff have indicated that the grassland "will be maintained consistent with past practice pending a future decision on development." Thanks to Commissioners Reinhardt and Xiong, a no trespassing policy which applied prior to 2022 was reinstated in 2023. This helps reduce unintentional impacts on ground-nesting birds. The grassland can be viewed from adjoining park trails on the west and north, as well as a public sidewalk on Century Avenue to the east. Eventually, we hope to arrange for accessible public viewing platforms on the southern edge, based on national <u>Birdability guidelines</u>.

Declaring the grassland an *Environmental Natural Area* within Battle Creek Regional Park and managing it as a grassland ecosystem would save an important bird nesting area and provide benefits for the entire community.

Maplewood actions

The Battle Creek grassland is zoned by the City of Maplewood as farm/residential. In addition, the city's comprehensive plan anticipates continued institutional use as a corrections facility. Before any housing can be developed, the city would have to rezone and amend its comprehensive plan. The city conducted a community engagement process from November 2020 to June 2021. A description of the process and the final report are here and here<

Media coverage

The Star Tribune published articles about the grassland on $\frac{7}{17/21}$, $\frac{8}{25/21}$, $\frac{10}{16/21}$, $\frac{1}{28/22}$, $\frac{5}{9/22}$ and $\frac{1}{2/23}$. The Saint Paul Pioneer Press published on $\frac{3}{3/21}$, $\frac{3}{13/21}$, $\frac{2}{1/22}$ and $\frac{11}{23/22}$. Bring Me the News published an article on $\frac{2}{1/22}$.



MONARCH BUTTERFLY, THE MINNESOTA STATE BUTTERFLY AND CLASSIFIED AS AN ENDANGERED SPECIES BY THE INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE, ON GOLDENROD, BATTLE CREEK GRASSLAND. PHOTO BY JOHN ZAKELI, 2021.

Appendix: Some of the bird species documented in the Battle Creek grassland and their population statuses.

Species	MN Endangered ¹	Greatest Conservation Need ²	Area- Sensitive ³	Tipping Point Species ⁴ , ⁵	MN Stewardship Species ⁶	Population Trend 1966-2019 ⁷	
						Minnesota	U.S & Canada
Grasshopper Sparrow		•	•			-97%	-74%
Clay-colored Sparrow						-37%	-35%
Field Sparrow		•				-56%	-69%
Henslow's Sparrow	•	•	•	•		-67%	-63%*
Savannah Sparrow			•			-66%	-52%
Bobolink		•	•	•	•	-58%	-43%
Eastern Meadowlark		•	•			-68%	-74%
Dickcissel		•				-82%	-27%

^{*}Henslow's Sparrow is not found in Canada; the trend is for the U.S.

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¹MN DNR, Minnesota's list of endangered, threatened and special concern species, Aug 2013.

² MN DNR, <u>Appendix B: Tomorrow's habitat for the wild and rare, species in greatest conservation need</u>, Apr 2006.

³Herkert, J. R. The effects of habitat fragmentation on Midwestern grassland bird communities. Ecological Applications 4 (3):461-471 (1994). This study indicates that four of the "area sensitive" species would almost certainly be eliminated if the Battle Creek grassland were reduced in size.

⁴ Tipping Point species have lost 50% of their populations from 1970–2019 and are considered "On Alert." Most are on a trajectory to lose another 50% of their populations in the next 50 years or already have perilously small populations and continue to face high threats. North American Bird Conservation Initiative, Cornell Lab of Ornithology, <u>Grassland Birds</u>, 2022.

⁵ Cornell Lab of Ornithology, <u>Taxonomic list of on-alert and tipping point species</u>, 2023.

⁶ Audubon Minnesota, <u>Stewardship birds of Minnesota</u>, May 2013.

⁷ USGS, Patuxent Wildlife Research Center, <u>Bird population studies</u>, <u>BBS trends 1966-2019</u>.