The Prairie Enthusiasts

Management Plan
for
Oak Drive Wet Prairie
St. Croix County, Wisconsin

St. Croix Valley Chapter of The Prairie Enthusiasts
P.O. Box 824
122 W. Jefferson St.
Viroqua, WI 54665

December 2024

Prepared by: Daniel Carter

The Prairie Enthusiasts

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I. BACKGROUND

Dan Carter visited this site on July 31, 2024, with Alex Bouthilet, Wayne Huhnke, and Evanne Hunt at the request of the St. Croix Valley Chapter of The Prairie Enthusiasts and was asked to develop a management plan on that date. The Chapter is interested in adopting the site as a project, because it supports populations of wet prairie species that are otherwise extremely uncommon locally.

OWNERSHIP(s)

Terese Higgins
311 County Road JJ
River Falls, WI 54022

PRESERVATION STATUS

This property is privately owned and unprotected.

LOCATION

Town of Kinnickinnic, St. Croix County, Wisconsin. T28N, R18W, SE SE NE Section 22 (**Attachment A, Maps 1 and 2**).

ACREAGE

Total Acres	**2.25**

*This area includes remnant wet prairie with elements of calcareous fen and southern sedge meadow that falls between cultivated land to the north and east and an alder thicket to the southwest.

DESCRIPTION

The entire prairie lies within Western Prairie Ecological Landscape, just east of Nye Creek. The prairie is located on a slight, even southwest aspect with elevation ranging from about 943 feet in the far west to 958 feet in the northeast corner (**Attachment B**). Quaternary deposits are Copper Falls sand and gravel, sorted and bedded, and overlain with less than one meter of loess (**Attachment C**). The United States Department of Agriculture (USDA) Web Soil Survey (**Attachment D)** maps most of the area to Rib silt loam, with a small portion in the west mapped fluvaquents (stratified alluvium).

CONSERVATION SIGNIFICANCE

Oak Drive Wet Prairie supports degraded wet prairie with elements of calcareous ("prairie") fen, which grades into southern sedge meadow in the western part. Notable species include marsh betony (*Pedicularis lanceolata*), Riddell's goldenrod (*Solidago riddellii*), greater fringed gentian (*Gentianopsis crinita*). These and other wet prairie species are locally very uncommon, so this site may serve as an important local genetic resource.

Invasive species include reed canary grass (*Phalaris arundinacea*), particularly near edges

closer to the cultivated area and purple loosestrife (*Lythrum salicaria*). Tag alder (*Alnus incana*) has encroached from the southwest.

Nye Creek, which is separated from the wet prairie by an alder thicket and an area dominated by reed canary grass, is a class I trout stream. The property also falls within a United States Fish and Wildlife Service (USFWS)-delineated "low potential zone" for the federally endangered rusty patched bumble bee (*Bombus affinis*). This means that the preserve falls within the modeled potential dispersal distance from a recent occurrence record of that species.

See **Attachment E** for a botanical inventory and rare species summary. See **Attachment F** for site photographs.

LAND USE HISTORY

The land survey notes (**Attachment G**) for nearest original land survey transect indicate that the immediate vicinity of the site was open prairie. Welsh's survey (1847) south to north along the east side of section 22 passed just east of the wet prairie and the quarter section was marked with a mound of soil at the present-day location where Oak Drive intersects the east boundary of section 22. Welsh described the soil as "poor and wet." **Attachment H** shows 1937, 1992, 2004, and 2010, 2018, 2020, and 2022 aerial photography and includes the Wisconsin Economic Land Inventory ("Bordner Survey," 1933-1945) for the vicinity of the property. In 1937 the vicinity of the prairie was uncultivated, open, and likely pastured, and this uncultivated land stretched farther east than it does presently. There was some brushy vegetation just southwest of the present-day remnant, possibly alder. The Bordner survey maps the vicinity of the prairie to cropland, but it seems more likely that a narrow uncultivated area between cultivated land and the east bank of Nye Creek and Oak Drive was not mapped apart from the adjacent field, or less likely this area was briefly cultivated around the time of the survey. The 1992 air photo has poor resolution, but it does appear as if brush had expanded a bit just southwest of the present-day area. In 2004 the area to the north and east was under cultivation, and the area southwest of the prairie is predominantly brush and trees. By 2010 brush (alder) had expanded to the edge of the present-day prairie area. Between 2010 and 2020 the area was grazed for a period inclusive of 2018. An expanded view from 2018 shows cattle on the pasture that contains the wet prairie. The cattle are at the north end near an outbuilding, and cattle paths are visible along the south and north fences around the wet prairie. This appears to have been an intense, but relatively brief period of grazing. It is unclear whether the area was still being grazed by 2020, but cattle paths are still obvious on the air photo. By 2022 grazing appears to have stopped, and brush has encroached a little more along the southwest edge of the wet prairie.

II. MANAGEMENT PLAN

An overriding view guiding the below is that Midwestern fire-dependent systems with ecological integrity are expressions of stability. That stability arose from minimal soil disturbance and regular removal of litter and thatch by Indigenous peoples' use of dormant season fire. Likewise, our management should strive to foster such stable conditions that allow for the development of complex, interwoven, and diverse communities. The key components of that stability in this context are light, low nutrient availability, air movement, and minimal smothering thatch and leaf litter. The use of fire and both mechanical and chemical methods should tend towards maintaining that stability rather than disturbing it. The main exception may be opening areas of closed thicket along the southwest edge. In that case site stewards should anticipate a vigorous response of opportunistic vegetation and ensure that capacity is there to address it by actively suppressing

those species in favor of those associated with wet prairie, fen, and sedge meadow.

GOALS

Overarching Goals
Primary: Restore and maintain the wet prairie / southern sedge meadow complex

Secondary: Promote flowering and seed production

Goals (by 2035)
The below goals can be evaluated on a "yes-no" basis. Changes that will accompany work towards the below goals are needed to improve underlying conditions that are expressed presently as degradation. Work will maintain or increase openness, minimize accumulation of smothering thatch, and reduce nitrogen availability. The below goals do not necessarily reflect ultimate desired conditions, but rather incremental change for the next ten years.

1) Reed canary grass does not increase in extent or cover. Areas of high reed canary grass cover remain largely restricted to the periphery near the fence lines in areas that were most disturbed by the recent period of grazing.

2) Total cover of exotic, broad-leaf herbaceous species is less than 1 percent.

3) Total cover of woody exotic species is less than 1 percent.

4) Total cover of woody native species (e.g., clumping shrub willows, alder, dogwood) is less than 5 percent.

5) The flowering populations of greater fringed gentian and marsh betony are increased relative to 2024. Both species are relatively short lived and their persistence long-term depends on openness and consistent removal of thatch.

THREATS/CONCERNS

1) Herbaceous invasive species, including reed canary grass and purple loosestrife

2) Climate change: This threat is amplified by insufficient frequency of stabilizing dormant-season fire. Very frequently dormant burned prairie sites have maintained or even improved condition in recent decades, despite accelerating climate change; other sites are losing ecological integrity. Loss of genetic and species diversity due to fire exclusion and associated woody encroachment and changes in herbaceous stature, along with decreasing landscape connectivity among fire-dependent ecosystems as surrounding areas degrade and change states, may also reduce overall ecosystem resistance to climate change.

3) Eutrophication: Excessive dry and wet deposition of nitrogen is occurring across the entire landscape due to agricultural/industrial activities. Grazing activities, which occurred recently, have likely increased nutrient availability, as is any surface runoff from adjacent agricultural land that may still be occurring. Changes in community

composition due to disturbance or exclusion of dormant season fire can speed up nitrogen cycling or alter soil microbial communities in ways that make nitrogen more available during the growing season as well. These factors result in communities of opportunistic (often tall) species competing for light versus relatively low-statured vegetation competing for limiting nutrients, which is the condition of most prairies, savannas, and oak woodlands with ecological integrity. Frequent dormant burns volatilize nitrogen from fine fuels and may offset this.

OBJECTIVES

1) Conduct frequent prescribed burns in the dormant season. This varies by year, but generally falls between late October (see below regarding species that disperse seed in autumn) and very early April.

2) Utilize mechanical or chemical means to treat unwanted woody vegetation.

3) Utilize mechanical or chemical means to treat unwanted herbaceous vegetation.

4) Conduct regular monitoring (see *Inventory/Monitoring* below) related to the above goals.

METHODS

Herbicides should be used judiciously. Use the most selective active ingredients and targeted application methods likely to result in desired outcomes. All herbicide application must occur in accordance with product labels, but recognize that labels do not guard against all possible collateral effects.

Prescribed burning is to occur in accordance with TPE burn policy.

The operation of powered equipment/tools (e.g., chainsaws, brush cutters, vehicles of any kind) should be reserved for those that have appropriate experience and in compliance with any applicable TPE policy.

Prescribed grazing will not be allowed, because it is a non-selective practice that may cause decreases in conservative species (research is limited, but see Smart et al. 2011[1], Buckles and Harmon-Threatt 2019[2], Thomas 2023[3]) and exacerbate brush issues (Briggs et al. 2002)[4]. There is also little evidence to suggest that any species richness benefits from grazing are not driven by

[1] Smart, A. J., Nelson, M. J., Bauman, P. J., & Larson, G. E. (2011). Effects of herbicides and grazing on floristic quality of native tallgrass pastures in eastern South Dakota and southwestern Minnesota. Great Plains Research, 181-189.
[2] Buckles, B. J., & Harmon-Threatt, A. N. (2019). Bee diversity in tallgrass prairies affected by management and its effects on above-and below-ground resources. Journal of Applied Ecology, 56(11), 2443-2453.
[3] Thomas, J. (accessed 8/3/2023). The effects of patch burn grazing on a high quality prairie. NatureCITE (URL: naturecite.org/our-impact).
[4] Briggs, J. M., Knapp, A. K., & Brock, B. L. (2002). Expansion of woody plants in tallgrass prairie: a fifteen-year study of fire and fire-grazing interactions. The American Midland Naturalist, 147(2), 287-294.

opportunistic (ruderal) species, which are of far less conservation concern, and not at the expense of species more strongly associated with old growth or high integrity remnant natural communities. Furthermore, deer were by far the most abundant large herbivore east of the Mississippi pre-1500, and their numbers are presently high. Bison herds east of the Mississippi were scarce[5] or "small and scattered"[6] prior to 1500 and their behavior influenced by hunting and the presence of natural predators—a situation that cannot be replicated on the contemporary landscape, let alone at the scale this site. The historical fenced grazing of livestock did maintain open structure for long periods, but it also caused extreme degradation that has contributed to the rapid closure of open communities in recent decades upon cessation of grazing (and now many active pastures have brush problems without other active intervention) versus areas minimally or not subject to grazing. It is a misconception that this historical fenced (European) grazing maintained Midwestern open communities. Fenced grazing often destroyed or degraded the critical herbaceous composition and structure of those communities.

Prescribed Burning

Fire is a part of prairie as much as fire is a management tool, so its use is also part of prairie's restoration. The more frequently Midwestern prairie ecosystems are burned in the dormant season, the more of their remnant-associated or old-growth composition is maintained over time (Towne and Owensby 1984[7], seasonality; Bowles and Jones, 2013[8], frequency on mostly dormant burned sites; Alstad et al., 2016[9], frequency on mostly dormant burned sites). Less frequently burned sites lose old-growth-associated/conservative plant species and the fauna they support. This is not surprising given the near unanimity among historical accounts that ignitions were mostly anthropogenic, dormant or autumnal, and very frequent over large areas (Stewart, 2002[10]; Wilhelm and Rericha, 2007[11] and 2012[12]; McLain et al., 2021[13]). Wilhelm and Rericha refer to this as the "ancient, culturally mediated rhythm," and it was an underlying stabilizing factor that prevented smothering thatch and litter accumulation, reduced fire intensity (especially duration), limited new woody encroachment, minimized nutrient availability during the growing season, and facilitated the coming together of rich and interwoven communities as various floras expanded and/or contracted over thousands of years. Fidelity to this historical condition is not anachronistic, but essential to the core ecological processes of prairie and their resistance to climate change and other

[5] Henderson, R. (2001). Where did the elk and the buffalo roam. The Prairie Promoter, 14(2), 15-16.
[6] McMillan, R.B. (2006). Perspectives on the biogeography and archaeology of bison in Illinois. In Records of Early Bison in Illinois, Illinois State Museum Scientific Papers, Springfield, 31, 67-147.
[7] Towne, G., & Owensby, C. (1984). Long-term effects of annual burning at different dates in ungrazed Kansas tallgrass prairie. Rangeland Ecology & Management, 37(5), 392-397.
[8] Bowles, M. L., & Jones, M. D. (2013). Repeated burning of eastern tallgrass prairie increases richness and diversity, stabilizing late successional vegetation. Ecological Applications, 23(2), 464-478.
[9] Alstad, A. O., Damschen, E. I., Givnish, T. J., Harrington, J. A., Leach, M. K., Rogers, D. A., & Waller, D. M. (2016). The pace of plant community change is accelerating in remnant prairies. Science Advances, 2(2), e1500975.
[10] Stewart, O. C. (2002). Forgotten fires: Native Americans and the transient wilderness. University of Oklahoma Press.
[11] Wilhelm, G., & Rericha, L. (2007). Timberhill savanna assessment of landscape management. Conservation Research Institute, Elmhurst, IL.
[12] Wilhelm, G. & Rericha, L. (2012). Inventory and Assessment Plan for Stewardship and Monitoring at Hitchcock Nature Center. Conservation Research Institute, Elmhurst, IL.
[13] McClain, W. E., Ruffner, C. M., Ebinger, J. E., & Spyreas, G. (2021). Patterns of anthropogenic fire within the midwestern tallgrass prairie 1673–1905: Evidence from written accounts. Natural Areas Journal, 41(4), 283-300.

stressors like excessive nitrogen deposition. There is disagreement between historical accounts and more contemporary scientific estimates based on fire scars (e.g., Allen et al., 2011[14]), which estimate longer fire-return intervals, but the fire regime that best-maintains prairie on the contemporary landscape lends strong support to the historical accounts. Fire scar studies only capture fire events sufficiently intense to scar focal tree species (usually oaks) on the landscape positions where trees historically occurred, and very frequent or annual fires would be of relatively low intensity and undetectable in fire scar records because they are less likely to scar oak trees (McEwan et al., 2006; Knapp et al. 2017)[15,16].

It is possible that rare or uncommon specialist insects are present. Panzer (2002)[17] found that of the 40% of prairie insects that negatively responded to fire on small, isolated remnant prairie preserves, more than two thirds recovered within a year. A third of the species exhibited no significant response, and about a quarter of species responded positively immediately following burning. However, most work does not consider how fuels and/or seasonality might interact with fire to affect intensity and associated exposure to lethal heat. One exception is Dana's (1991)[18] work on fire effects on Dakota and Ottoe skippers, which implicates high fuel loads that build up at long fire return intervals in little bluestem-dominated prairie (and to a lesser degree burning later in spring) rather than fire itself with mortality risk. bunchgrasses and sedges, which can damage both the perennating buds of some grasses and co-located overwintering invertebrates.

The site is within the modeled dispersal distance of the Federally endangered rusty patched bumble bee. The preponderance of research on the effects of fire on bumble bees or groups of bees including bumble bees in eastern North America (e.g., Ulyshen et al. 2021[19]; Tai et al. 2022[20]; Brokaw et al., 2023[21]) suggests either that burning benefits them by removing litter and increasing floral resource abundance and duration or that burning has no effect. This site is mostly quite wet and probably does not have the potential to provide nesting or overwintering habitat so much as foraging habitat.

All prairie, fen, and sedge meadow plants present should either benefit or experience no deleterious effect from very frequent, low-intensity dormant season burning. Burning during the growing season, especially in the spring after green-up would likely cause injury to, cause decreased vigor of, and potentially lead to population declines of desirable species.

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[14] Allen, M. S., & Palmer, M. W. (2011). Fire history of a prairie/forest boundary: more than 250 years of frequent fire in a North American tallgrass prairie. Journal of Vegetation Science, 22(3), 436-444.
[15] McEwan, R. W., et al. (2007). An experimental evaluation of fire history reconstruction using dendrochronology in white oak (*Quercus alba*). Canadian Journal of Forest Research 37(4), 806-816.
[16] Knapp, B. O., Marschall, J. M., & Stambaugh, M. C. (2017). Effects of long-term prescribed burning on timber value in hardwood forests of the Missouri Ozarks. In Proceedings of the 20th Central Hardwood Forest Conference (pp. 304-313). USDA Forest Service Gen. Tech. Rep. GTR-NRS-P-167, Northern Research Station, Newtown Square, PA.
[17] Panzer, R. (2002). Compatibility of prescribed burning with the conservation of insects in small, isolated prairie reserves. Conservation Biology, 16(5), 1296-1307.
[18] Dana, R. P. (1991). Conservation management of the prairie skippers *Hesperia dacotae* and *Hesperia ottoe*. Station Bulletin, Minnesota Agricultural Experiment Station, University of Minnesota, 594, 1-63.
[19] Ulyshen, M. D., Wilson, A. C., Ohlson, G. C., Pokswinksi, S. M., & Hiers, J. K. (2021). Frequent prescribed fires favor ground-nesting bees in southeastern US forests. Insect Conservation and Diversity, 14(4), 527-534.
[20] Tai, T. M., Kaldor, A., Urbina, D., & Gratton, C. (2022). Within-Year Effects of Prescribed Fire on Bumble Bees (Hymenoptera: Apidae) and Floral Resources. Journal of Insect Science, 22(1), 7.
[21] Brokaw, J., Portman, Z. M., Bruninga-Socolar, B., & Cariveau, D. P. (2023). Prescribed fire increases the number of ground-nesting bee nests in tallgrass prairie remnants. Insect Conservation and Diversity, 16(3), 355-367.

Taking the above into account and given pressures from woody encroachment and non-native species, burn very frequently during the dormant season (October through March or during cooler springs, early April). Burning wetland areas when the water table tends to be lower in autumn may be advantageous, but the wetland should never be burned when muck or peat are dry. While muck or peat soils are not mapped to this area, parts of this area do indeed have an organic soil layer. Also, note that if burning in fall prior to seed dispersal of greater-fringed-gentian and marsh betony in particular (any species that may be short-lived or senesce after flowering), seed should be collected prior to burning and re-broadcast where those species' populations occur after the burn. In wetland situations these species likely retain seed banks that persist more than a year, but information is lacking. Seeds that have been dispersed and are in contact with moist ground are more likely to survive burns, especially if fuel loads are low due to frequent burning.

If brush is cut, avoid burning piles. Instead lay down and spread out cut limbs. Cutting brush when limbs are bare will minimize smothering of existing vegetation by any limbs that are spread out.

Unwanted Woody Vegetation

Much woody vegetation (e.g., shrub willows) needs to be reset much more frequently by fire and does not need to be eliminated.

However, work may occur to reduce / push back alder along the southwest edge. This would be beneficial to reduce shading but also nitrogen availability from high-nitrogen alder litter and alder's association with nitrogen fixing bacteria. Mechanical and chemical approaches used should be the most selective, minimally disruptive approaches feasible. For example, cut-stump or basal applications of herbicide should be used if practicable. There should not be precipitation in the forecast for at least a few days following cut stump or basal application, and application methods / tools should minimize any dripping on snow, soil, or surrounding vegetation. Even with treatment, alder may resprout from exposed roots that extend farther away from crowns, so follow-up would likely be required. Aquatic rated products should be used in proximity to water, including saturated surface soils. This will probably be the case where alder grows, which would preclude basal application.

Alternatively, repeated growing season cutting with a brush cutter (2-3 times annually) across a couple growing seasons, while minimizing cutting of surrounding sedges, is untested with alder, but it could be tried and may allow sufficient recovery of underlying sedges to restore flammability and turn the corner against the alder.

Reed Canary Grass

Reed canary grass is most abundant around the periphery, which is where cattle appear to have had the greatest impact and where nutrient impacts from the adjacent field are greatest. Reed canary in these areas is less of a concern than reed canary grass in the interior of the site. Reducing nitrogen availability (through volatilization) and minimizing thatch with very frequent dormant burning may prevent further expansion of reed canary grass, and it may even reduce its vigor where it co-occurs with native vegetation. This may be all that is needed to meet the goal of no increase in reed canary grass over the next ten years. While reed canary grass could be treated chemically around the periphery, this likely would not resolve the issue of nutrient / sediment inputs from adjacent agricultural land. Before such efforts would be worthwhile, a buffer would need to be established uphill into the cultivated area.

If reed canary grass is treated, treatment should be selective. Read Reversing *Reed canary grass Invasions Requires a Multiple-method Systems Approach* (I recommend downloading a copy there, but if link breaks, contact the TPE Ecologist for a copy) for ideas about integrated approaches for reed canary grass suppression that include fire and potentially herbicide use. I would only

recommend the latter here after assessing the results of fire alone for at least several years, particularly since little can be done in the near term to fix underlying issues around the perimeter. Most of the interior is buffered from surface runoff and instead subject to groundwater seepage, bolsters prospects for minimizing reed canary grass.

Purple Loosestrife

Purple loosestrife is scattered but not terribly abundant. It probably established after physical disturbance by cattle. In my experience it typically does not proliferate in settings like this so long as disturbances that expose the soil surface in the growing season are minimized. This species may be addressed by cutting plants at the soil surface just as they begin to flower to prevent further seed set or cutting plants low and carefully treating the cut stems with glyphosate. Plants may be dug, but when they get large it is difficult to remove all rhizomes, and the physical disturbance created may be too great. Biocontrol (*Galerucella* beetles) is another option, but I am not sure the invasion here is severe enough to warrant it. Invasive Japanese beetles (*Popillia japonica*) also cause considerable damage to purple loosestrife when their populations are high.

Other Exotic or Opportunistic Herbaceous Species

Species like Canada / tall goldenrods (*Solidago canadensis* and *S. altissima*) and Canada thistle (*Cirsium arvense*) that quickly colonize open space and proliferate by seeds and/or long rhizomes can be problematic in the wake of brush work and canopy thinning or following other physical disturbances. Pulling these in recently cleared areas before they become well-established or selectively cutting them short once or twice during the growing season over consecutive years while interseeding more desirable vegetation is the recommended approach where these are over-abundant. These and other exotic or opportunistic species should be prioritized for treatment only if their presence threatens the remaining populations of more conservative native species on the site.

Adding Species by Interseeding

There is minimal need for this practice unless potentially alder clearing along the southwest edge. Seed may be harvested on site and broadcast in any areas with exposed soil caused by brush removal or any other physical disturbance.

Collecting Seed from this Site

One of the reasons this site is of interest is that it may provide local genetic sources for wet prairie species that would otherwise be unavailable for restoration and reconstruction projects in the area. However, care should be taken not to over-collected. Species like greater fringed gentian and marsh betony are not long-lived, so continued seed input from those species needs to be allowed and between 75 and 90 percent of their seed production should be left unharvested, depending on their populations and flowering in any given year.

Over-Abundant and Feral Fauna

If the Property Steward considers any animal (vertebrate or invertebrate) species to be at a high enough population level to impede attainment of site goals by excessively harming native flora or excessively suppressing native fauna, such species may be reduced in numbers by regulated hunting or other controlled lethal methods. Feral animals may be live trapped and removed or killed if such action is legal. As of 2024 no such concerns were obvious, but deer browse would be the most likely concern to arise. Where conflict between the autumn deer hunting season and needed management activities exists, management activities should be prioritized. In this case any

such activity will require permission of the property owner.

INVENTORY/MONITORING

These actions will be undertaken as time and resources permit.

1) Take documentation photos before management work begins and periodically thereafter.

2) Maintain lists for flora and select fauna.

3) Annually search for invasive and aggressive native plants, both those currently known to be present and those that may yet arrive.

5) Conduct botanical/ecological assessments of management units at least once each decade. Here, floristic quality assessment using a timed meander method timed meander would be ideal, though the 7/31/2024 assessment likely provides an adequate baseline with the caveat that greater fringed gentian was not observed on that date.

6) Evaluate the attainment of goals in this plan in 2035.

FACILITIES

There are no facilities on site.

USE

The property is closed to the public.

III. MANAGEMENT AND MONITORING RECORDS

The Saint Croix Valley Chapter of The Prairie Enthusiasts will designate a steward (individual, group, or committee). The steward will keep records of all management activities (i.e., what, where, when, and how) and monitoring carried out by or at the behest of the Chapter. A site base map or precise description of location (using landmarks or spatial coordinates) may be used to document where management and monitoring activities were conducted. For example, hand-written notes could be made on Attachment A, map 2, and the maps could be scanned in on a regular basis and saved by the chapter and/or shared with the TPE Ecologist to be saved in the property's digital management plan folder. Alternatively, detailed notes with reference to the location kept in Word or Excel document could suffice. All management and monitoring activities (excluding passive monitoring like iNaturalist observations) must be reported to the steward or other appropriate TPE representative for record keeping.

IV. APPROVALS

SAINT CROIX VALLEY CHAPTER (Chapter Chair/President, Chair of Land Management, Site Steward, etc. This is optional at the chapter's discretion)

By:_____
(name)

Title:_____

Date:_____

TPE LAND MANAGEMENT COMMITTEE

By:_____
(name)

Title: Committee Chair

Date:_____

THE PRAIRIE ENTHUSIASTS

By:_____
(name)

Title: President

Date:_____

V. ATTACHMENTS

A: Property Location and Approximate Prairie Boundary
B: Topographic and Hillshade Maps
C: Quarternary Deposits
D: Soil Map and Units
E: Rare Species Table and Inventory with Preliminary Floristic Quality Assessment
F: Site Photographs
G: Original Land Survey Field Notes
H: Historical Aerial Photography and Bordner Survey

Version 2024 (DLC)