

University of Wisconsin Oshkosh

Native Landscaping

Proposal for the Oshkosh Sustainability Board



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Executive Summary

The City of Oshkosh municipal code currently contains unclear guidelines for landscaping practices. Due to this language, Section 17-44 of Oshkosh's municipal code should be revised to provide clear landscaping guidelines, while promoting native landscaping and discouraging turf grasses within the City of Oshkosh. Within the current language, there are implications that the city has the right to tell you to cut vegetation over 8 inches, even if it is registered, if they deem it unsightly or "overgrown." This language causes a bias against tall, deep rooted native species that could improve the environmental health of the Oshkosh community. The current 8 inch rule shall be limited and specified to turf grasses only. The city should also encourage landscaping with native species over turf grass lawns within the ordinance as well as implement incentive programs for citizens who include native species on their properties. The ordinance should also be changed as to not allow removal and destruction of vegetation by the city on private property unless it is deemed a hazard or health violation. Oshkosh should follow in the footsteps of other cities that have updated native landscaping within their codes. Other Wisconsin cities such as Whitewater, and Neenah (see Appendix A&E) contain clear language and definitions in their landscaping ordinances and provide a good example for Oshkosh's code.

This proposal addresses the environmental issues in the Oshkosh community caused by turf grass. These issues include water pollution by toxic lawn chemicals such as fertilizers and pesticides, soil erosion and flooding caused by a lack of deep root structures, and low biodiversity due to a lack of complex and native species. By taking these recommended steps, the City of Oshkosh can achieve greater environmental health within its community. Many communities in Wisconsin are starting to recognize the need for less turf grass and more native species. Oshkosh is starting to fall behind in these areas. By considering the following recommendations, the City of Oshkosh could become a spearhead in the sustainability movement in this region and beyond.

Background

The current standard of landscaping in the Oshkosh community is that of a “corporate lawn,” dominated by bright green turf grass. In an attempt to regulate lawn management on a broad scale, the current city ordinance demonstrates a bias towards traditional turf grass. Numerous Wisconsin cities have adopted progressive lawn care ordinances that promote the use of native species while addressing concerns surrounding maintenance and potential misinterpretations of city expectations. Native plants play a key role in community health. Native species used and promoted on a wide scale have a positive effect on biodiversity, soil and water health. Current ordinances and lack of public education are driving forces of negative perceptions on native landscaping.

Overall, the public is in support of native landscaping for its positive environmental impacts. However, aesthetics are very important to most populations. Generally, people prefer a natural looking landscape that is not too wild. Water features also rate highly as well as colorful flowers. Mowed and clear cut areas tended to rate the poorest. Many studies conclude that younger, more educated, higher class populations prefer a native landscape over older, less educated, lower class populations, with gender not having an influence on opinion. Older generations have an emotional tie to an agricultural landscape that is difficult to interfere with. This highlights the importance of educating the public on the environmental issues in their community and how certain actions can have major negative effects on environmental and human health. Most often, people are in favor of improved air and water quality but are not always aware of what that means for their landscape. A major conclusion to be drawn from this research is the varying preferences of individuals. It is important to find a compromising balance to partially satisfy the masses.

Recommended Action

We are recommending a wording change to Oshkosh Municipal Code Section 17-44 on weed cutting and lawn care. We would like to note the aim of this project is not to abolish the 8 inch rule for lawn care regulations, but rather clarify the language used, specifically in the Exemptions section of the ordinance. As it stands, designated nature areas are allowed and do not have to abide by lawn care regulations however, the wording is unclear and discouraging to native plants. Below is the current code followed by our recommended changes to the code. Please note bolded text is what we are recommending to be added and slashed text is what we are suggesting to be removed.

City Of Oshkosh Current Municipal Code:

SECTION 17- 44 WEED CUTTING AND LAWN CARE

A) Owner' s Responsibility

The owner of every parcel of land within the City shall cut or cause to be cut all grass in excess of eight(8) inches in length, dandelions, and weeds and other like vegetative growth in excess of eight (8) inches in length upon said land and in the public right- of-way adjoining said land. Any owner failing to comply with this provision is subject to the penalties provided in Section 17-46.

B) Uncut Growth; Public Nuisance; Abatement b, All uncut growth as outlined above is hereby declared to be a public nuisance and fire hazard and shall be cut by the City at its option if the owner fails to comply with this ordinance. In addition to any other penalty provided in this Code, the costs thereof, together with an administrative charge applied to the bill, imposed each time the growth is cut, shall be charged against the property as a special tax.

C) Exemption

This ordinance shall not apply to appropriate lands cultivated for agricultural purposes or to appropriate privately- owned nature areas as outlined in paragraph (D) below provided that appropriate measures shall be taken to eliminate noxious weeds as defined in Section 66. 96 of the Wisconsin Statutes. Failure to eliminate the noxious weeds or otherwise conform to the land management plan for a nature area shall forfeit the exemption to this Section.

D) Private Nature Areas

1) An owner of land in the City may apply to the Director of Parks or designee for approval of a nature area on privately owned land. The application shall define the proposed nature area indicating the types of vegetation to be used and any other information the Director deems necessary. The owner shall agree to hold the City harmless for all acts necessary to enforce its Weed Cutting and Lawn Care regulation. There shall be specific management techniques outlined to control weeds and noxious weeds, and rodent infiltration.

2) Failure to comply with the land management plan for the area may result in revocation of approval. The Director shall mail to the owner of the property in question a notice of intent to

revoke the plan allowing the owner thirty (30) days to either correct the violations or to convert the property into a mowed and manicured lawn composed of a common stand or turf grass mowed to a height of not greater than eight(8) inches. Failure to act on the notice shall entitle the City to proceed according to subsection(B) above.

What We Recommend:

(Changed actions bolded)

SECTION 17- 44 WEED CUTTING AND LAWN CARE

A) Owner' s Responsibility

The owner of every parcel of land within the City shall cut or cause to be cut all grass in excess of eight (8) inches in length, dandelions, and weeds and other like vegetative growth in excess of eight (8) inches in length upon said land and in the public right- of-way adjoining said land. Any owner failing to comply with this provision is subject to the penalties provided in Section 17-46.

...

C) Exemption

This ordinance shall not apply to appropriate lands cultivated for agricultural purposes or to appropriate privately- owned ~~nature areas~~ **native landscaping** as outlined in paragraph (D) below provided that appropriate measures shall be taken to eliminate noxious weeds as defined in Section 66. 96 of the Wisconsin Statutes. Failure to eliminate the noxious weeds or otherwise conform to the land management plan for a nature area shall forfeit the exemption to this Section.

D) ~~Private Nature Areas~~ **Designated Native Landscaping**

1) Native landscaping is deemed a viable alternative to turf grass in lawn development as native species can be effective in soil and water conservation, are economical and low maintenance, and may reduce the use of pesticides, herbicides, and fertilizers that contribute to water pollution. The State of Wisconsin has prohibited yard waste in any solid waste disposal facility, has increased regulations on stormwater runoff, and has laws that protect the invasion of chemicals into lakes, streams, and wetlands, such as Lake Winnebago and the Fox River, by lawn products. This legislation should enable the city to progress in achieving compliance with the state regulation while simultaneously improving water quality for our inhabitants. It is hereby noted that native landscaping is no more or less appropriate than turf grasses in regards to the visual appeal of individual properties. Note that the intent of this title is not to allow vegetated areas to be unmanaged. Control of noxious, invasive weeds shall be required in all landscape plans.

2)(1) ~~An owner of land in the City may~~ If the property owner exceeds fifty percent of the surface area of the property with native landscaping not otherwise occupied by buildings,

structures, or improvements, the owner shall file a notice—apply to the Director of Parks or designee for the approval of a native landscape area on privately owned land. The notice shall define the proposed nature area indicating the types of vegetation to be used as well as a detailed maintenance plan and any other information the Director deems necessary. The owner shall agree to hold the City harmless for all acts necessary to enforce its Weed Cutting and Lawn Care regulation. There shall be specific management techniques outlined to control weeds and noxious weeds, and rodent infiltration. Said native landscaping may be subject to removal if:

- 1. the native landscaping, or any portion thereof, encroaches on any property ownership line or public right-of-way,**
- 2. there is a clear and present a hazard to public health, safety or city maintenance issues exists,**
- 3. the area is not properly maintained as outlined in maintenance plan presented when registering native landscape**

Additional Recommendations:

Aside from the municipal code change, we also recommend that the City of Oshkosh implement an incentive program for citizens who include native species on their properties. The city currently has a residential stormwater utility credit policy in place for residents who have a rain barrel or rain garden on their properties. This incentive can be further promoted encourage residents to incorporate native species in their landscaping. Once the outlined code change is adopted, we anticipate a more widespread adoption of native landscaping within the city. In efforts to promote this shift, the City of Oshkosh is recommended to incorporate more native landscaping around city buildings such as city hall, police and fire stations, as well as community parks. There should be a required percentage of represented native landscaping at these locations. For inspiration the city can look to the USDA/NRCS county office where they have already incorporated native landscaping. Additionally, to help combat the educational barrier and inform residents, the city should provide educational signs explaining the benefits that the given area has on environmental health. These signs could simply show that the area is a certified wildlife habitat or monarch waystation (if properly certified), or they could go more in depth into the science of native species, or how citizens can implement a similar looking landscape on their own properties.

Stakeholders

Lisa Mick & Anita Carpenter

University of Wisconsin Oshkosh Facilities Management & Volunteer

According to these individuals, everyone should have some aspects of native species within their landscaping. These stakeholders talked heavily on the benefits native species have on insect and bird populations. However, one of the major problems that they identified on the UW-Oshkosh campus are the opposing societal views that they have encountered when trying to implement these species. These stakeholders have a strong personal bias towards accepting native landscaping, partially due to the immense education they have received on the benefits of these species. What they struggle with is pleasing everyone's landscaping taste.

They explained that many people complain about the "overgrown weeds" around campus without knowing what the species are, blaming facilities management for being lazy. This could possibly be due to the lack of native species in Oshkosh. Lisa Mick is responsible for the visual appeal of campus to future students and parents. If the public views the university as being "lazy" and not keeping up with weeds, it is safe to assume this view could carry onto their academic views of UWO. They have begun using education to combat these negative views by putting up signs by native species to show that the area is monarch waystation. This simple act dramatically changed public opinion and they have since received compliments on their work to save the environment. Another aspect that is not widely known, is that native species can serve other purposes such as providing food for migrating birds and insects, creating natural snow fences, and are extremely low maintenance. These are especially relevant in Oshkosh as we deal with long winters where snow fences can be useful.

These stakeholders have noticed the ease with low maintenance native landscapes. Native species require less care opposed to traditional lawns, especially in regards to mowing, which saves on the cost of gas. They said on average it takes over 800 million gallons a year to mow turf grass lawns, while native plants do not need this continual maintenance. The problem is changing the cultural mindset. People don't want brown yards or have something they perceive as weeds because it shows laziness to many. This mindset causes citizens to put more money into lawns through water, herbicides, insecticides, fungicides and so on, all of which contribute runoff. What facilities management has done to combat this is plant flowering or blooming plants to give more natural beauty. Overall, these stakeholders, who would be positively impacted by the change in ordinance, agree that more public education needs to be done. There is a current big societal push to save the bees and butterflies, and if more people knew the benefits native species give to these pollinators, a positive change could be seen in the Oshkosh community.

Levi Schultz

Winnebago County Conservation Technician

Mr. Schultz is an expert stakeholder because he is with the Natural Resource Conservation Service (NRCS), and is engaged in an effort to promote and assist in native landscaping. This professional responsibility makes it his job to know everything about native plants and how to implement them into landscaping.

Upon entering the US Department of Agriculture (USDA) and the NRCS government building, one can immediately notice the native landscaping surrounding the building as well as informative posters about native plants. This is a great example to the City of Oshkosh of using native plants to educate the public on their benefits and appealing looks. Mr. Schultz also provided detailed information on their own native plants as well as a handout on how to install a rain garden in 3 easy steps (Appendix C). This is a great way to show people how easy a cost saving, environmentally friendly project can be to do yourself.

Mr. Schultz is strongly in favor of native plants and even talked about his efforts in transforming his own yard to primarily native plants. As he embarks on this journey, he is very concerned with what his neighbors will think so he is trying to create a smooth transition from turf grass to native species. In terms of implementing this at the household level, it is important to know what your neighbors think. Mr. Schultz is concerned because one neighbor complaining about overgrown weeds can cause problems throughout the community and result in the city forcing him to cut them down. Mr. Schultz would be positively impacted by the change in ordinance.

One of the key points that he identified was the control of soil erosion. "They never make more land so we need to conserve what we have," he said, and native plants are important in doing this. He also identified that native species help recharge groundwater, which is important for the Oshkosh area's water quality. Mr. Schultz frequently travels to schools to talk about soil health, conservation practices, and native species. He also travels to places like the county fair to promote conservation works. He also brought up their willingness to do more community presentations when asked, because the more knowledge the community has, the more accepting they are which makes their job much easier. It is a good idea to have more presentations like this at places like the farmers markets, on campus, and more community events to keep educating the public. Mr. Schultz's expertise in the subject is very beneficial to this project.

Shannon Davis-Foust

UWO Professor and Wild Ones Member

Shannon is a professor at UW Oshkosh and she's very involved with Wild Ones Fox Valley Area. She's an expert stakeholder due to the fact that she wouldn't directly be affected by the ordinance changes, however she's very knowledgeable about native landscaping. She was supportive of the proposal to reword the current ordinances regarding native landscaping. She has vast knowledge on the impacts that both invasive and native plant species have on the environment and she would be an excellent source for information on how to start a native garden. She understands that native plantings are not for everyone but she encourages those that want to incorporate native vegetation into their landscapes to do so and gives them the information they need to start and maintain their native landscape. Shannon's opinion benefits this proposal because she knows first-hand that native landscaping can increase biodiversity and improve the health of the soil, air and water around the landscape. When we first started our research we were looking into getting rid of the eight inch rule. When advised of this, Shannon said that getting rid of the eight inch rule would not be beneficial to our goal, which is to implement more native vegetation in Oshkosh. She advised that without mowing, a turfgrass lawn would become very hard to maintain as well as very susceptible to invasive species.

Robert and Carol Niendorf

Wild Ones Members

Robert and Carol live in Omro and have had their native prairie for 32 years. They have gained vast knowledge about native landscaping over the years. They are also a huge part of Wild Ones, an organization that works to promote the use of environmentally sustainable landscapes. The Fox Valley chapter for Wild Ones was partially started because Robert and Carol's prairie was the first in the area. They are supportive of rewording the current ordinances, removing a portion of the native prairie ordinance where the city is not held responsible for enforcing the Weed and Lawn Care Policy as well as making sure those who plan on implementing native landscapes have a maintenance plan. The Niendorfs opinions are beneficial to our project because they have so much knowledge on the topic and first hand experience because they've been maintaining their prairie for 32 years. They hope to see more people implementing native landscaping and they are there to help for those who need more information on how to start.

Lynn Markham

Shoreland and Land Use Specialist

Lynn Markham is a shoreland and land use specialist with the University of Wisconsin Stevens Point. She is an expert in the field and specializes primarily in shoreline restoration. Her

experience in restoration projects provides key insight into dealing with negative public opinion, public education, and long term maintenance. She suggested educating the public on the identification of noxious weeds and invasive species. Additionally, Lynn mentioned incentive programs in which signs that highlight “pollinator friendly” and “pesticide free” lawns that help educate the public on the importance of native landscaping. Distributing lists of native plant nurseries will also help ease the process of starting a native landscaping project. She did mention that the long term maintenance of native lawns can be overwhelming if an individual starts with too big of a project. However, as the ecosystem becomes more established and self sustaining maintenance will decline.

Ruth McGinley

Miller’s Bay Neighborhood Leader

Ruth McGinley is considered a primary stakeholder in this issue because as the Miller’s Bay Neighborhood Leader and as a citizen of Oshkosh, she will be directly affected by changes in the city’s ordinances. She was very opinionated against us making this recommendation to the city. Aesthetics and property value are key issues to many property owners. McGinley expressed that many people have no interest in changing their yards and landscape by replacing their turf grass. The natural look of native species is not wanted by some individuals who greater prefer a manicured urban look within their landscaping. A concern that McGinley had was that by getting rid of the mowing ordinance, people would just stop mowing their turf grass, creating an unappealing appearance and lowering the property values of surrounding homes. She pointed out that simply removing the current 8 inch requirement would not make people switch to native species. This concern caused us to shift our initial proposal idea from removing the 8 inches rule completely to applying the rule to turf grass species only. Another concern that McGinley had was the expensive initial cost of removing turf and replacing it with native species.

Misty McPhee

UWO Environmental Studies Professor

Misty McPhee is considered an expert stakeholder in this issue because as an Environmental Studies Professor and someone who has a native landscape on their property, she has extensive knowledge and experience in the subject. She is highly in favor of advocating for the implementation of more native species and promoting fewer areas of turf grasses to increase the overall environmental health within the community. When advised of McGinley’s concerns about cost, maintenance, and appearance of native landscaping, McPhee took a very different approach. Installation does not have to be expensive. There are cheap ways to kill turf grass without special tools or chemicals, and cuttings and seeds of native plants are available in various places within the community. Additionally, any initial cost will quickly be made up by the reduced maintenance cost of a native landscape. If turf grasses are replaced, time and money spent on mowing, watering, and pesticide and herbicide application is eliminated. I also asked McPhee about the overall appearance of her landscaping and how her neighbors feel about her choices. She told me that she keeps up the appearance of her yard through weeding and trimming

to prevent overgrowth. She also shared that no one has complained about her landscaping choices.

Michelle Bogden Muetzel

Sustainability Advisory Board Member

Michelle Bogden Muetzel is a member of the Sustainability Advisory Board. She is a secondary stakeholder with a background shoreline restoration and native planting. Her background gave insight to how to address negative public opinion toward the project. She suggested a lack of education on the subject could be the source of the general public's distaste. With that utilizing forums and brochures as well as the promotion of incentive programs. Michelle mentioned citizens that utilize rain gardens (a form of native landscaping) receive stormwater credit and credit on their water bill. It's programs like these that will promote the use of native landscaping on a broader scale. She was also able to provide insight to concerns the city council may raise. A primary one being maintenance of the native landscaping on government properties. An emphasis will be placed on the price reduction on mowing needs and pesticide use. Additionally, we will need to work to address how the local government will follow up on complaints within the city. Ultimately, we need to emphasize the ecological importance of native landscaping, whether it be through increased biodiversity, stormwater management or soil health.

Dale Rezabek

Shoreland Specialist

Dale Rezabek is a shoreland specialist with the Department of Natural Resources (DNR). He is a secondary stakeholder and his expertise in shoreland restoration provided a key insight to implementation and maintenance of native landscaping projects from a government perspective. Rezabek mentioned the education of the public on the key differences between turf grass lawns and those that feature native landscaping. He has noticed complaints by neighborhood leaders near sites where native landscaping has been used on a broader scale. A lot of cities are recognizing the importance native landscaping on ecological health. It's the change in policy that will ultimately advocate the use of native plantings. Current statutes do not align with DNR standards thus shifts must be made to ensure the protection of Oshkosh waterways, soil and environment as a whole.

Raymond Maurer and Bill Sturm

Parks Director and Landscape Operations Manager

Raymond Maurer and Bill Sturm did not feel that a change in current city ordinance regarding native landscaping, or as it states in the ordinance private nature areas, is necessary

because they do not always follow ordinance guidelines. Bill said that if there was a complaint about a lawn that someone would be sent out to survey the land and make sure that the property owners are following the ordinances. They also mentioned that the section that says, “the owner shall agree to hold the City harmless for all acts necessary to enforce its Weed Cutting and Lawn Care regulation,” was not enforced for the exempt nature areas unless they were found to have noxious weeds or are not following their land management plan. Bill also mentioned that not many people know of the current exemption that Oshkosh has in place as well as the benefits of native vegetation in general. The few places that have applied for the exemption happen to be larger plots of land that have used native vegetation. When asked if requiring native vegetation in the landscapes of city buildings would be beneficial as examples for homeowners for ways to implement native vegetation in their yards Bill and Raymond said that they do not actively promote the use of native vegetation. Raymond mentioned that if a homeowner was very interested in incorporating native vegetation into their yard that they could look at places such as Menomonie Park or the DNR station as examples of places that do have a native landscape. Both Bill and Raymond agreed that incorporating native vegetation would be best around shorelands with educational plaques at them. They also mentioned, and agreed on, that incorporating native vegetation around more visible sites on commercial properties would be encouraging to citizens.

Benchmarking

Whitewater, WI (Municipal code in Appendix A)

Whitewater is a great example of what Oshkosh should be moving towards. In Whitewater's city municipal code they clearly and concisely define and outline the benefits to native landscaping without contradicting words. Whitewater even states that it is just as appropriate to have native grasses opposed to turf grasses regarding visual appeal, this is done in hopes of promoting native landscaping. Whitewater only requires the land owner to file a notice with the city when it exceeds 50% of the land area. This implies less work on the owners part and more focus on promoting the native planting.

City of Whitewater, Whitewater Municipal Code, Section 13.10.030, website:
<https://www.whitewater-wi.gov/243/Ordinances>

Green Bay, WI (Municipal Code in Appendix F)

Green Bay has recently revised their city municipal code in 2012 to promote native landscaping within the community. Green Bay's Ordinance states as follows, "Any person wishing to maintain a planned natural landscaping area on their property may register their property with the Department of Public Works." Green Bay's push to promote native landscapes comes even in their wording. Green Bay says you may register, implying it's possible for anyone to implement this change. Within Green Bay's code there is a push to promote native landscaping while at the same time addressing the public concerns of overgrown weeds and goes as follows; "It is the purpose of this section to prohibit the uncontrolled growth of vegetation and to control noxious weeds, while permitting the planting and maintenance of planned natural landscaping that add diversity and richness to the quality of life." This section promotes native landscaping by stating the benefits of "adding diversity and richness to the quality of life." The Green Bay ordinances also state: "It is also in the public's interests to encourage diverse landscaping treatments, particularly those that encourage the preservation, restoration, and management of native plant communities which can be economical, low-maintenance and effective in soil and water conservation. The city enacts this section to balance these competing interests." This section provides the public with the outlined benefits while still enforcing overgrown weed control while Oshkosh's does not provide any support for native plants and discourages native landscaping by the given wording.

City of Green Bay, Green Bay Municipal Code, Section 8.11, website:
<https://greenbaywi.gov/323/Codes-Ordinances>

Portage, WI (Municipal Code in Appendix D)

Portage's municipal code is a good example of what our proposal is trying to accomplish. Citizens who are interested in having a natural lawn must complete an application that includes a natural lawn management plan and turn it in to the city clerk. Once the application is turned in the city mails each of the property owners that are within 300 feet of the boundary of the property implementing native vegetation. If there is less than fifty-one percent objection the citizen who applied for permission to implement a natural lawn can then do so. The part that best suits our proposal is that the native landscape does not fall under the 8" rule. "The growth of a natural lawn in excess of eight inches in height from the ground surface shall be prohibited within the city corporate limits **unless** a natural lawn management plan is approved and a permit is issued by the city as set forth in this division." This portion of Portage's ordinance would be beneficial to Oshkosh's ordinance because many native plants are adapted to grow taller than eight inches, therefore it would be very difficult to obtain a variety of native plants to fit the current standards in Oshkosh's ordinance.

City of Portage, Portage Municipal Code, Section 26,51-26,106, website:
https://library.municode.com/wi/portage/codes/code_of_ordinances

Neenah, WI (Municipal Code in Appendix E)

Neenah's Municipal Code was amended in 2014 to encourage the implementation of native and natural landscapes. Neenah's ordinance is a good example of clear wording regarding the benefits that native landscaping can have towards the health of a community. The ordinance states, "It is also in the public's interests to encourage diverse landscaping treatments, particularly those that encourage the preservation, restoration, and management of native plant communities that can be economical, low-maintenance and effective in soil and water conservation." Definitions and guidelines regarding the different types of landscaping such as Planned Natural Landscape, Native Plants, and Turf Grasses are clearly outlined to avoid confusion. This type of guidance would be beneficial to include in Oshkosh's Municipal Code.

City of Neenah, Neenah Municipal Code, Section 10-33, 10-34, website:
<https://invasivespecies.wi.gov/wp-content/uploads/2016/08/Neenah>

Stevens Point, WI (Municipal Code in Appendix G)

The Stevens Point ordinance helps serve as framework for a functioning city ordinance that promotes the use of native plantings by its citizens. Instead of limiting the height of lawns,

what forms of plantings are permitted etc., the ordinance explicitly lays out what form of plantings cannot be permitted in a lawn. Stevens Point Ordinance 21.03(17) states that “No owner, operator or occupant of any premises shall suffer, permit or allow noxious weeds as defined in Section 66.96 Wisconsin Statutes...” (Appendix G). The ordinance goes on to list common weeds and invasive species that must be excluded from landscaping. By listing what isn't permitted it allows for citizens to easily utilize native landscaping without facing push back from government officials.

City of Stevens Point, Stevens Point Municipal Code, Section 21.03, website:

<https://stevenspoint.com/DocumentCenter/View/103/Chapter-21---Maintenance--Occupancy?bidId=>

Costs

Revising the ordinance would present a minimal cost to the City of Oshkosh. In our proposal we are suggesting that citizens not have to apply to create a native landscaped lawn. Instead, once a certain percentage of one's lawn is planted with native vegetation, they would give a notice to the City of Oshkosh so that the city knows that the property owner's lawn should be exempt from the weed and lawn cutting ordinance. This would reduce the current cost to the city by cutting out the application process that is currently in place. There would be a small cost to requiring Oshkosh's city buildings to have a certain percentage of their landscape to be native vegetation. In an interview with Misty McPhee, she mentioned that it cost her only \$600 to turn her roughly 3,000 square foot turfgrass lawn into a native landscape. To implement turfgrass it costs anywhere from \$170 to \$320 per 100 square feet of lawn, which includes the basic costs of materials, equipment and labor (Homewyse). Because we are not suggesting that the city buildings transform their entire landscape, the cost would be expected to be lower than McPhee's landscape. Adding a sign by the native vegetation would also have a small cost. The monarch waystation sign and certified wildlife habitat signs shown under additional recommendations can be found at <https://shop.monarchwatch.org/> and <https://www.nwf.org/Garden-for-Wildlife/Certify> respectively. The monarch waystation sign is \$17 alone or it can be paired with certification as a monarch waystation for \$33. The certified wildlife habitat sign is a little bit more expensive. To obtain the sign you have to get certified as a wildlife habitat which costs \$20 and an additional \$30 is added if you want the sign. Another option would be to custom design a sign for city buildings. There are also financing options to help afford the cost of implementing native vegetation. The Winnebago County Land and Water Conservation Department has a Water Quality Improvement Program where they will "provide cost-sharing at 70% up to \$20,000 for eligible projects" (Winnebago County). This includes rain gardens and vegetative buffers. The Wild Ones organization also has a grant they offer for implementing native landscaping through Natural Landscapes for Tomorrow. The grant offers between \$100 and \$500 and the recipient must provide at least half of the matching funds. The application can be found at <https://foxvalleyarea.wildones.org/resources/>.

There are also some initial costs when implementing native landscapes for private property owners who wish to create a native landscape, and for the city if a percentage of the landscape must be native vegetation for city buildings. According to Robert and Carol Niendorf, planting a native prairie costs just about the same, maybe a little more than planting a traditional turfgrass lawn. The Niendorfs have a 4 acre native prairie that they had someone come and plant for them, which could be one reason for the higher cost. Misty McPhee's costs were much lower due to the fact that she got cardboard and mulch free from the city which she used to cover up the turfgrass to kill it before she added the plants. Costs can also vary depending on if you decided to plant seeds or plugs. Plugs are plants that are already growing such as those you can

buy at a nursery. Plugs are much more expensive but seeds take longer to grow and require more maintenance for them to get established. One way the Niendorfs mentioned to lower the cost of native plants is to go out and collect seeds. This is a free and easy way to gather plants to start a native garden. The Niendorfs also mentioned that Wild Ones Fox Valley Area has an annual plant sale where they sell plugs of various types of vegetation such as flowers, trees and shrubs which are anywhere between \$5- 45 depending on the size and type of plant. You can also get relatively inexpensive kits, such as a 32-plant kit from Prairie Nursery (Prairie Nursery). For \$120 you can choose thirty-two 2.5" plants which not too expensive for just starting out. When first starting a native landscape, most people don't plan to transform the entire landscape at once so implementing native landscaping would not be overly expensive, especially if they did it themselves versus contracting the work out.

Transitioning larger areas into native landscapes does have a higher cost, but in the long run can save money. "With reduced water and fertilizer inputs and reduce mowing costs up to 42% savings can be realized by 5 years after conversion and up to 80% cost savings after 20 years" (USDA). Native plants maintain themselves after they are established and they do not require mowing, watering or fertilizing which can add up with a turf grass lawn.

Barriers

One major barrier in this project is the public opinion toward turf lawns and native planting. Generally, people prefer turf lawns because of their clean appearance as well as recreational function. It is generally agreed that overgrown turf grasses are unappealing, however there is a clear distinction between the look of overgrown turf grasses and the look of tall native grasses that some of the public may not be aware of. Some members of the public believe that an unmowed landscape will lower property value of the home and surrounding homes which drives them to mow their lawn in order to look nice for their community. This also leads to the barrier of varying individual landscape preferences. While some prefer the urbanized mowed look, others will prefer the native natural look with the remainder of individual preferences falling somewhere in between. Various studies regarding public opinion of different native landscapes found that people prefer looking at unmowed, but not overgrown grass landscapes with sporadic larger elements such as trees or water features (Barton). However, the participants in these studies were asked about landscape preferences for public land and not their preferences for their own private properties. The current social construct of beauty surrounding landscaping is a considerable barrier for this project.

The initial cost of implementation is also a barrier for the public. However, as discussed in the Costs section of this report, there are methods of cost savings when transforming a turf lawn landscape to a native landscape. Also, the lower cost of maintenance with native landscaping will cut costs for property owners in the long run.

Time is also a barrier for the public. Due to the nature of native species, it can take up to three years for the landscape to fully flourish. Most native plants follow the “Sleeps, Creeps, Leaps” growing pattern (Schultz). The first year after planting many native species lay dormant, causing many people to believe that their plants have died, resulting in their removal. The second year the plants begin growth slowly. Finally, in the third year, the species are able to take hold and fully start to flourish. This long wait time can serve as a deterrent for property owners.

A final major barrier regarding native landscaping and lawn mowing is the public’s lack of knowledge on the subjects. Education is needed to show residents the good of native plants and the negatives of traditional turfgrasses. Many people are unaware of the negative environmental impacts that turfgrass and lawn mowing have on biodiversity, soil, air, and water quality. Studies have shown that when the public is educated on these issues, more people will be in favor of native plant implementation (Ryan). Another issue the public has with native landscaping is the undesirable wildlife, such as bees, that it attracts. Education needs to be given to inform residents of the roles these species have in a healthy ecosystem and how they can coexist with these important species.

Significance for Sustainability

Revising the city ordinances on native landscaping will achieve several of Oshkosh's goals in their Sustainability Plan. Under the "Greenhouse Gas Sinks" category the first goal of "encouraging the citizenry to plant trees, flowers, and brushes that will act as a natural greenhouse gas sinks" can be met by rewording the ordinances. If revised, the ordinances would be more encouraging for Oshkosh's citizens to implement more native vegetation into their yards. It will also accomplish several goals under "Environmental Conservation" including goals for waterfront development, native landscaping, green spaces as well as environmental considerations. Many of Oshkosh's goals under the previously stated headings are about promoting and using more native plants around Oshkosh including city buildings, parks and homes. Rewording the current ordinance would give citizens more incentive to incorporate more native vegetation in their yards and businesses because they won't have to worry about the city applying the 8" rule to their native landscape. Also, by requiring a management plan for the landscape citizens are able to demonstrate that the implementation of native vegetation has been researched and the city will know that the person knows how to care for it. Lastly, by only having citizens register their gardens if fifty percent of their total area of their property citizens have the ability to implement native gardens without having to register it with the city. Most people wouldn't switch over their landscapes all at once but most likely in small portions, which without registration, making the utilization of native plantings easier on the homeowner. In total, ten of Oshkosh's sustainability goals can be accomplished or partially accomplished by rewording the current ordinances regarding native landscaping.

Native landscaping is extremely beneficial for water and soil quality improvement. In today's society traditional lawns pose various threats that contribute to soil degradation as well as water quality degradation. In 2003 some 31,754 tons of soil were estimated to have eroded from Wisconsin fields; only 9 other states had greater total water erosion (WICCI). Today that amount has increased tremendously. Incorporating native landscaping can provide deeper root structures and cover against the elements and hold that soil in place. In the wake of dramatic climate shifts it is our duty as earth inhabitants to reduce harm to the environment, one of the easiest, most beneficial ways to reduce impact is to eliminate traditional yards and shift to native landscaping. The City of Oshkosh primarily has traditional or corporate yards which are mowed grass lawns common in association with corporate headquarters, office buildings, governmental building complexes and shared open space in large residential developments. These can have long term negative impacts on soil and water health as they are often mowed and treated with chemicals as well as over watered. Often when these common open spaces are cleared so are the native plants in the area and then "traditional" short grasses are introduced. The native topsoil can erode away with the introduction of new plants and compromise its ability to filter out water toxins or stay in

place. Native plants can bring back the soil's stability and natural filtration system in turn improving water quality and durability.

Native planting can improve water quality like storm water or for Lake Winnebago and the Fox River considering they are on the WI State impaired waters list. In multiple scientific articles examined experiments were conducted to study the specific benefits of planting native plants versus introduced plants were conducted on roadside or roadside simulated environments, the results confirmed the improvement of water quality where native landscaping had been implemented. Native prairies can be used as water treatments as well (Appendix B), prairie treatment systems allow developments to make more productive use of the available land for larger developments with more retail, parking, and various other projects instead of dedicating land for stormwater detention ponds. Due to the deep root structures of many native plants they have the ability to absorb release nutrients in water and break down pollutants.

Native plantings have a significant impact on bird and insect (in the colloquial sense) diversity. Additionally native landscaping has a superior ability to "fend off" weeds and invasive species, especially when compared to turf grass. There is a strong correlation between biodiversity and urban landscaping. Several case studies examining interspecies correlation in connection to urban planting provide key insight into the impact of native landscapes. These studies solidify the holistic nature of the urban planning crisis as a shift in the food source of an animal lower in the food chain can have a drastic effect on larger taxa. Two case studies in particular serve as key examples of these trends. A study conducted in suburban properties in Pennsylvania found that native properties showed a greater abundance and diversity of birds and caterpillar species (Burghardt). An additional case study conducted in Michigan was used to determine the effects of native plants on weed control, the success of native plantings on previously "barren" lots and soil health (DeJong). The results of native grasses could provide insight for viable species that could be used here in Oshkosh due to the proximity of the study as well as their impact on weed control. Ultimately, while biodiversity in urban landscaping is a key argument, our group will need to focus mainly with altering public perception.

The proposal to revise the current ordinances for implementation of native landscaping is more sustainable because Oshkosh would be promoting the use of native vegetation on a broader scale. If citizens implement more native vegetation a reduction in non-native, turf grass and consequently lawn maintenance chemicals could be observed. This means there's less chemicals and pollutants getting into the air, water and land due to the maintenance of traditional turfgrass lawns, therefore improving the overall environmental health of the area. To summarize, implementing native vegetation has numerous benefits that can positively impact Oshkosh's biological health.

Conclusion

Due to the world's changing climatic system, Oshkosh needs to do its part in contributing to a sustainable future. Native plants are relatively inexpensive, low maintenance, as well as a sustainable way to improve water quality, soil health, and ecosystem function. There have been many cities within Wisconsin that have updated or transformed their municipal codes to accommodate those changes. Oshkosh should not only update their ordinance to welcome these plants, but also do their part in promoting native landscapes throughout the city. If the City of Oshkosh makes these changes they will have the opportunity to become a leader in more sustainable practices driving change throughout the city and spreading to a state and global level. Native landscaping is also low maintenance which will allow Oshkosh City residents to lower spending costs put into traditional lawn upkeep including lowering pesticide, insecticide, and fungicide use which will in turn improve water quality. Lake Winnebago and the Fox River have increased levels of chemical run off and high algal blooms, this is due to the runoff from city residents lawns. By promoting the change to native landscaping this runoff will be lowered. Oshkosh will also be able to meet ten of its sustainability goals pushing the city to a greener future with the ordinance changes we are introducing. With this change Oshkosh can become a part, possibly a leader, of the many cities in Wisconsin dedicated to land and water health as well as conservation.

Works Cited

- Barton, S., Darke, R., Schwetz, G., & Finnie, C. Roadside Vegetation Concept and Planning Manual: Enhancing Delaware Highways, 25–30 (2005). Delaware Department of Transportation.
- Burghardt, Karin T, et al. “Impact of Native Plants on Bird and Butterfly Biodiversity in Suburban Landscapes.” *Conservation Biology*, vol. 23, no. 1, 1 Oct. 2007, pp. 219–224.
- “Corporate Lawn Conversion to Native Plants.” USDA, Natural Resources Conservation Service- New Jersey. (2011).
- Cost to Install Sod: Sod Installation Calculator. 2019. *Homewyse*. Retrieved from: https://www.homewyse.com/services/cost_to_install_sod.html
- DeJong, Leanna N, et al. “Converting Lawn to Restored Forest on a Midwest College Campus: A Seven Year Assessment of Herbaceous Plant Establishment.” *Ecological Restoration*, vol. 35, no. 2, June 2017, pp. 167–174.
- Duke, J. M., Bruck, J., Barton, S., Murray, M., Inamdar, S., & Tallamy, D. W. (2016). Public preferences for ecosystem services on exurban landscapes: A case study from the Mid-Atlantic, USA. *Heliyon*, 2(7). doi: 10.1016/j.heliyon.2016.e00127
- Nahuelhual, L., Laterra, P., Jiménez, D., Báez, A., Echeverría, C., & Fuentes, R. (2018). Do people prefer natural landscapes? An empirical study in Chile. *Bosque (Valdivia)*, 39(2), 205–216. doi: 10.4067/s0717-92002018000200205
- Prairie Nursery. 2019 Native Plant Catalog and Ecological Gardening Guide. (2019).

Ryan, R. L. (2012). The influence of landscape preference and environmental education on public attitudes toward wildfire management in the Northeast pine barrens (USA). *Landscape and Urban Planning*, 107(1), 55–68. doi:
<https://doi.org/10.1016/j.landurbplan.2012.04.010>

Water Quality Improvement Program. 2019. *Winnebago County Land and Water Conservation Department*. Retrieved from:
<https://www.co.winnebago.wi.us/lwcd/programs/water-quality-improvement-program>

Wisconsin Initiative on Climate Change Impacts - WICCI : Soil Conservation Working Group. (n.d.). Retrieved from
<https://www.wicci.wisc.edu/soil-conservation-working-group.php#soil>.

Appendix A

Whitewater, Wisconsin- Code of Ordinances Title 13 - NATURAL LANDSCAPE YARD

PURPOSE:

The purpose of this natural landscape yard title is to address concerns regarding landscaping in the City of Whitewater. Natural landscape gardens are viable alternatives to lawn development as they can be economical, low maintenance, effective in soil and water conservation, and may reduce the use of pesticides, herbicides, and fertilizers. Because the State of Wisconsin has prohibited yard waste in any solid waste disposal facility; has increased percentage regulations on stormwater runoff and has laws that protect the chemical invasion of lakes, streams and wetlands by lawn products, this legislation should enable the city to progress in achieving compliance with said state regulation. It is hereby noted that these landscape alternatives are no more or less appropriate than turf grass yard choices in regard to the visual appeal of individual properties. It is also important to note that the intent of this title is not to allow vegetated areas to be unmanaged. Control of noxious, invasive weeds shall be required in all landscape plans.

- Natural landscape gardens allowed.

(a) A natural heritage garden, ornamental garden, rain garden and/or sustenance garden may be planted if it is in compliance with the following provisions: (1) The garden does not violate any other City of Whitewater ordinance. (2) The garden is authorized by the owner or occupier with written permission as verified by owner. (3) The garden, or any portion thereof, does not encroach on any property ownership line or public right-of-way. (4) The owner or occupier complies with the notice provisions of below:

- Notice of natural landscape garden.

(a) If any natural heritage garden, ornamental garden, rain garden, sustenance garden, or combination thereof, exceeds fifty percent of the surface area of the property not otherwise occupied by buildings, structures, or improvements, the owner shall file a notice with the director of public works. This notice shall contain: (1) A drawing or sketch depicting the area of the garden relative to the property ownership lines, public right-of-way, buildings, and structures and improvements located on the property. The drawing need not be done to scale or prepared by professionals; (2) Information indicating the general vegetation to be used within the plan and their approximate locations. (b) The landscape garden plan shall be submitted to the director of public works for appropriate city staff review. If the plantings might suggest a negative impact on drainage, visibility or drainage easements the plan shall be changed or submitted to the garden landscape review board for further review. (c) Information on planning an alternative landscape yard

can be secured from the director of public works. A review of the costs and labor involved in the planting and maintenance of these yard alternatives may be discussed at that time.(d)No fees shall be assessed for this review.(e)If the garden(s) do not exceed fifty percent of the surface area as set forth above, the garden(s) shall be allowed without filing a notice, but shall still adhere to the other sections of this chapter.

- Garden landscape review board.

A garden landscape review board shall be appointed by the city council for a three-year term. The board shall consist of the city forester, the park and recreation board urban forestry commission representative, a city council member, and two citizens at large. The board shall meet as needed.

- Noxious weeds.

(a)The following noxious weeds are prohibited in natural landscape gardens:(1)Buckthorn (Common glossy) (*Rhamnus cathartica*);(2)Burdock (*Arctium*);(3)Dame's Rocket (*Hesperis matronalis*);(4)Garlic Mustard (*Allaria petiolata*);(5)Wild Honeysuckles—Japanese (*Lonicera japonica*); EurAsian bush (Amur, *Lonicera maackii*); and Morrow's (*L. morrowii*);(6)Purple Loosestrife (*Lythrium solitaria*);(7)Reed Canary Grass (*Phalaris arundinacea*); and(8)Thistles—Purple, Bull (*Cirsium vulgare*); Musk (*Carduus nutans*); Plumeless (*Carduus arvensis*); Yellow star (*Centaurea solstitialis*); and Canada (*Cirsium arvense*).(b)Other invasives that may become problematic in Whitewater, as defined by the Wisconsin DNR listing and pictured in the publication "A Field Guide to Terrestrial Invasive Plants in Wisconsin", Wisconsin DNR 2010, may be referred to the garden landscape review board upon request for review, and said board may recommend that the council add the plant(s) to the above list.

- City controls.

(a)The City staff may not damage, remove, burn, or cut vegetation in any privately-owned residential yard that has a notice on file with the city, for which the city does not have management responsibilities, except the city may take such actions following a hearing in front of the garden landscape review board at which it is found:(1)That noxious invasives specifically named in city ordinances exist in that landscape; or(2)That a condition(s) creating a clear and present hazard to public health, safety or city maintenance issues exists; or(3)That property management responsibilities have not been met by the property owner.(b)This hearing must occur within thirty days following notification.(c)This section shall not in any manner restrict the city's right to maintain trees and vegetation in city rights-of-way.

- Pre-existing legal use exemption.

Properties with natural landscape gardens in place in compliance with the above regulations at the time of enactment of this title, which would be required to file a notice pursuant to, shall be

exempt from the filing notice requirement. In order to assist in the enforcement of this title, any owner claiming exempt status regarding the natural garden notice provisions called for herein shall register with the city clerk, on a form provided by the city clerk, within one hundred eighty days of the passage of this title by the common council. The information required on the registration form shall include the address of the property in question as well as a description of the gardens contained thereon. Any property not registered within one hundred eighty days of the enactment shall not receive exempt status. Any property granted exempt status must continue to adhere to all of the provisions of this title except for the notice requirement.

Appendix B

A Prairie for Clean Water



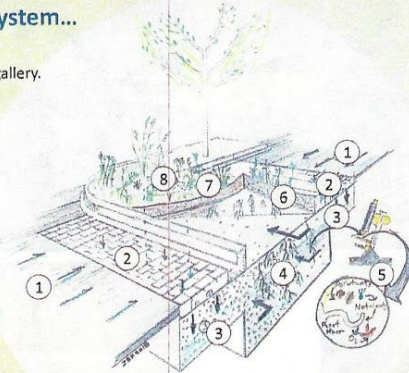
WINNEBAGO COUNTY
Land and Water Conservation
Wildlife and Forest Management



Prairie Treatment Systems integrate the water treatment capabilities of native vegetation into the urban landscape. Systems may be adapted and constructed anywhere they are needed. They may be designed to meet water quality treatment performance standards or may be designed to also meet the peak runoff reduction requirements of local jurisdictions. Prairie Treatment Systems allow developments to make more productive use of the available land for larger developments with more retail, manufacturing, parking, warehousing, or leasing instead of dedicating land for stormwater detention ponds. This project was partially funded by the Great Lakes Commission Green Infrastructure Champions Program with support from the Erb Family Foundations.

Did you know this Prairie Treatment System...

- Manages the runoff from 0.1 acres of parking lot.
- Captures 5,000 gallons of runoff in its subsurface storage gallery.
- Exceeds water quality performance standards for reducing sediment carried by stormwater
- Reduces the peak runoff rate for a 10-year rainfall to runoff rates equal to undeveloped land.
- Is able to capture rainfall as high as 2.5 inches per hour without ponding.
- Is crossed by 4 buried communication conduits and one electrical conduit without interference.



How Do Prairie Treatment Systems Work?

1. Rain runs off parking lot picking up pollutants.
2. Runoff passes through gaps in permeable pavement (PaveDrain®).
3. Runoff fills the underground gravel storage gallery.
4. Deep roots of native vegetation provide ideal habitat for microbes.
5. Microbes living on gravel and plant roots breakdown pollutants.
6. Soil cover insulates the gallery and absorbs odors from decomposition.
7. Native prairie plant's deep roots absorb released nutrients.
8. A 1/2-inch hole in manhole drains the rain water from the gallery in approximately 20 hours. When the gallery is full a second 10-inch hole keeps the gallery from overflowing into the parking lot.

Conventional Parking Lot With Bioswale

• Pavement and a landscaped parking island costs	\$6,000
• Drainage infrastructure costs	\$8,000
• Cost of an equivalent bioswale	\$30,000
• Cost of the extra land for the bioswale	\$13,000
• Total cost	\$57,000

Save Money By Integrating Construction

• Pavement and a landscaped parking island costs	\$6,000
• Cost to add the Prairie Treatment System	\$24,000
• Cost of the extra land for the Prairie Treatment System	\$0
• Total cost of this Prairie Treatment System	\$30,000
Cost savings	\$27,000

Why Build A Prairie Treatment System?

- Allows land to be more productively used for larger developments with retail, manufacturing, parking, warehousing, or leasing instead of dedicating land for stormwater detention ponds.
- Reduces the amount of land required for development.
- Has no standing water to turn green or attract mosquitoes
- Requires no specialized skills to maintain vegetation or permeable pavement.
- Allows space to be used for multiple purposes: paths/sidewalks, utilities, temporary snow storage, outdoor recreation, etc.).

Maintenance Requirements

- Maintenance of vegetation can be performed by standard landscapers/grounds keepers.
- Maintenance of pavement can be performed by standard vacuum pavement sweepers.
- Requires less deicing material.
- Standard snow plows and snow storage practices can be used.
- Pavement will not heave due to ground freezing.
- Pavement will not crack and shift.

Appendix C

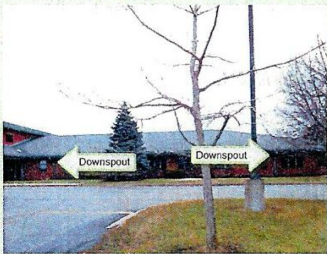


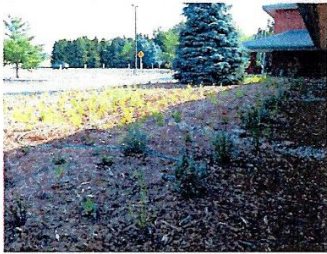
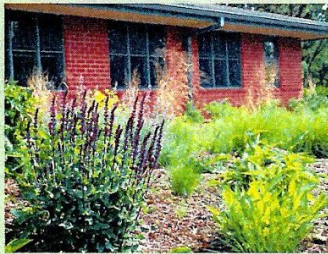

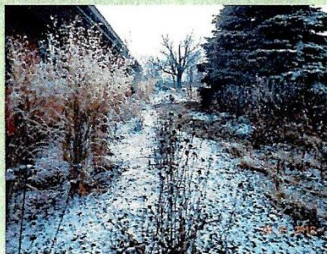




Rain Garden



3 Easy Steps to Install a Rain Garden

(more detailed information on back)

 <p>Step 1: Choose Site & Plan Project Select location, size and shape of the rain garden.</p>	 <p>Step 2: Excavation Shallow, 4 to 8 inches deep. Flat bottom.</p>	 <p>Step 3: Planting Install native plants at one foot spacing within the rain garden.</p>
 <p>Established Garden Control weeds until established. Water when dry to help establish plants.</p>	 <p>Spring</p>	 <p>Late Summer</p>
 <p>Winter</p>	 <p>Plaque at Building Entrance Visit for description of garden and plant identification.</p>	 <p>Enjoy Nature!</p>

Appendix D

Portage, WI Municipal Code

Sec. 26-71. - Definitions.

Natural lawn means common species of grass and wildflowers native to North America which are designed and purposely cultivated to exceed eight inches in height from the ground. Specifically excluded in natural lawns are the noxious grasses and weeds identified in division 2 of this article. The growth of a natural lawn in excess of eight inches in height from the ground surface shall be prohibited within the city corporate limits unless a natural lawn management plan is approved and a permit is issued by the city as set forth in this division. Natural lawns shall not contain litter or debris and shall not harbor undesirable wildlife.

(Code 1990, § 8-1-6(b))

Sec. 26-73. - Application process to establish natural lawn.

- (a) Property owners interested in applying for permission to establish a natural lawn shall obtain and complete an application form available from the city clerk. The completed application shall include a natural lawn management plan. Upon submitting a completed application, a nonrefundable filing fee will be assessed by the city as set forth in the official city fee schedule on file in the city clerk's office. Upon receiving payment, copies of the completed application shall be mailed by the city to each of the owners of record, as listed in the office of the city assessor, who are owners of the property situated wholly or partly within 300 feet of the boundaries of the properties for which the application is made. If within 15 calendar days of mailing the copies of the complete application to the neighboring property owners the city receives written objections from 51 percent or more of the neighboring property owners, the city clerk shall immediately deny the application. Neighboring property owners shall be defined as all those property owners who are located within 300 feet of the proposed natural lawn site.
- (b) If the property owner's application is in full compliance with the natural lawn management plan requirements and less than 51 percent of the neighboring property owners provide written objections, the city clerk shall issue permission to install a natural lawn.

(Code 1990, § 8-1-6(d))

Appendix E

Neenah, WI Municipal Code

Section 1. Section 10-33 of the Code of Ordinances of the City of Neenah is amended by adding the highlighted language and deleting the stricken language to read as follows: Sec. 10-33. Weed Commissioner designated.; Public Notice. Pursuant to the provisions of Wis. Stats. § 66.0517, the Public Works Superintendent is designated as the Weed Commissioner of the City. Unless delegated to the County, the Department of Public Works shall publish a notice annually on or before May 15, as required by State law, that every person is required by law to destroy all noxious weeds on lands in the City which he owns, occupies or controls. A joint notice with other towns or municipalities may be utilized. Section 2. Section 10-34 of the Code of Ordinances of the City of Neenah is repealed and recreated to read as follows: 10-34 NOXIOUS WEEDS AND MAINTENANCE OF VEGETATION (a) PURPOSE. It is the purpose of this Section to prohibit the unmanaged growth of vegetation and to control noxious weeds, while allowing the planting and maintenance of planned natural landscaping that adds diversity and richness to the quality of life. There are reasonable expectations regarding the proper maintenance of vegetation on any lot or parcel of land. It is in the public's interests to provide standards regarding the maintenance of vegetation because vegetation that is not managed can decrease the value of nearby properties and threaten the public health and safety. It is also in the public's interests to encourage diverse landscaping treatments, particularly those that encourage the preservation, restoration, and management of native plant communities that can be economical, low-maintenance and effective in soil and water conservation. The City enacts this Section to balance these competing interests. AN ORDINANCE: By Public Services & Safety Committee Re: Amending Neenah Code §10-33; repealing and recreating Neenah Code § 10-34; and repealing Neenah Code §§10-35 & 10-36 relating to the regulation of noxious weeds and maintenance of vegetation (b) DEFINITIONS. Conservation – The preservation and careful management of the environment and of natural resources. In this case, it involves preserving natural resources through the use of native plants and landscape designs that optimize local conditions to reduce irrigation water usage, reduce soil erosion, lower maintenance costs and maintain biodiversity. Destroy - the complete killing of weeds or the killing of weed plants above the surface of the ground by the use of chemicals, cutting, tillage, cropping system, or any or all of these in effective combination, at a time and in a manner as will effectually prevent the weed plants from maturing to bloom or flower stage. Garden - a cultivated area dedicated to growing vegetables, fruits, annual and perennial plants, ornamental grasses and ground cover in a well-defined location. Native Plants - those grasses (including prairie grasses), sedges (solid, triangularstemmed plants resembling grasses), and forbs (flowering broadleaf plants) native to or naturalized to the state of Wisconsin. Native plants do not include weeds. Noxious Weeds - any plant listed under §§ Wis. Stat. 23.235(1)(a), §§ Wis. Stat. 66.0407(1)(b), or Wisconsin Invasive

Species Rule (Ch. NR 40, Wis. Adm. Code). Ornamental Grasses and Groundcovers - grasses and groundcovers not indigenous to Wisconsin. Ornamental grasses do not include turf grasses and weeds. Planned Natural Landscaping - a planned, intentional and maintained planting of native plants, ornamental grasses and groundcovers, rain gardens, shrubs and trees. Planned natural landscaping does not include any species of turf grasses and is not intended to allow a property owner to ignore lawn care duties. Planned natural landscaping does not include gardens. Rain Garden - a native plant garden that is designed not only to aesthetically improve properties, but also to reduce the amount of storm water and accompanying pollutants from entering streams, rivers and lakes. Turf Grasses – any grasses commonly used in regularly cut lawns or play areas including bluegrass, fescue or rye grass blends or any other similar grasses. Unmanaged Plant Growth - any turf grass, hay, weeds, brush or other offensive vegetation which has grown to a height of over 8” but does not include: 1. Gardens, 2. Plants located on agricultural land, 3. Plants located on shoreland within 35 feet of the ordinary high-water mark, 4. Plants located within environmentally sensitive areas such as steep slopes, drainage ways, wetlands, and protective buffer areas, or 5. Planned natural landscaping that is wholly contained within the parcel on which it is planted and maintained. 6. Wooded lands. (c) REQUIREMENTS OF PLANNED NATURAL LANDSCAPING. (1) Turf grass is to be eliminated and the native plants, trees and shrubs are to be planted through transplanting or seed by humans or mechanical means. (2) Setbacks - The setback area shall be regularly cut turf grass, garden beds, trees, shrubs, mulch, wood chips or landscape stone. Setback distances are defined as: A. Three (3) feet from front lot line when adjacent to a public sidewalk and 0 feet from front lot line if there is no public sidewalk B. Three (3) feet from rear and side lot lines C. No setback is required on side and rear lot lines if any of the following conditions exist: i. there is a sight-tight fence along the lot lines. ii. the native landscaping abuts a neighboring planned natural landscaping area. iii. the native landscaping abuts a public park/open space. iv. the native landscaping abuts a natural area. D. On corner lots, the vision clearance triangle, as defined in Section 26-3, must be maintained. (d) CONTROL OF NOXIOUS WEEDS. (1) A person owning, occupying, or controlling land shall destroy all noxious weeds on the land. The person having immediate charge of any public lands shall destroy all noxious weeds on the lands. (2) If a person neglects to destroy all noxious weeds as required under subpar. (1), the Weed Commissioner shall destroy or have destroyed the noxious weeds. The cost of destroying the weeds shall be charged and assessed in the manner provided by § 66.0517(3)(b)1, Wis. Stats. (e) CONTROL OF UNMANAGED PLANT GROWTH. (1) A person owning, occupying, or controlling any residential lot or property adjacent to or adjoining a residential lot shall cut and remove any unmanaged plant growth on the land. (2) A person owning, occupying, or controlling any planned natural landscaping adjacent to or adjoining a residential lot shall cut and remove any unmanaged plant growth on the land. (3) If a person neglects to cut and/or remove unmanaged plant growth as required under par. (a) or (b), the Weed Commissioner shall cut down and remove or cause to be cut down and remove the unmanaged plant growth. The cost of cutting and removing the unmanaged plant

growth shall be charged and assessed in the manner provided by § 66.0627(2), Wis. Stats. (f) COMPLAINT NOTIFICATION. Upon receipt of a complaint of unmanaged plant growth and/or noxious weeds, the Weed Commissioner shall inspect any residential lot or property adjacent to or adjoining a residential lot to review compliance with provisions of this ordinance. If violations are noted, the Director of Public Works or Weed Commissioner shall on the first violation of the season notify the party responsible for the property that he intends to take action on the parcel ten (10) calendar days before any action is taken. Said notice shall inform the owner that subsequent violations during the current season shall be corrected by the City without further notice. If the parcel owner objects within ten (10) calendar days after the notice was issued, the Public Services and Safety Committee shall review the objection and recommend whether the parcel is a Planned Natural Landscaping exempt from Code Section 10-34(e) to the Common Council. The Common Council shall affirm or reverse the Public Services and Safety Committee's recommendation and issue a final decision. (g) APPEAL. Any property owner wishing to contest a charge assessed under this section may appeal to the Public Services and Safety Committee. The appeal shall be in writing and submitted to the City Clerk within 30 days of the date on which the unmanaged plant growth and/or noxious weeds were cut and/or destroyed. The Committee may uphold, modify or cancel the charge. This procedure for administrative review shall not be governed by Ch. 68, Wis. Stats. Section 3. Sections 10-35 & 10-36 of the Code of Ordinances of the City of Neenah are repealed. Section 4. Severability. In the event any section, subsection, clause, phrase or portion of this ordinance is for any reason held illegal, invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remainder of this ordinance. It is the legislative intent of the Common Council that this ordinance would have been adopted if such illegal provision had not been included or any illegal application had not been made.

Appendix F

Green Bay, WI Municipal Code

Purpose. It is the purpose of this section to prohibit the uncontrolled growth of vegetation and to control noxious weeds, while permitting the planting and maintenance of planned natural landscaping that add diversity and richness to the quality of life. There are reasonable expectations regarding the proper maintenance of vegetation on any lot or parcel of land. It is in the public's interests to provide standards regarding the maintenance of vegetation because vegetation which is not managed can decrease the value of nearby properties and threaten the public health and safety. It is also in the public's interests to encourage diverse landscaping treatments, particularly those that encourage the preservation, restoration, and management of native plant communities which can be economical, low-maintenance and effective in soil and water conservation. The city enacts this section to balance these competing interests.

(2) *Definitions.*

- (a) *Destroy* means the complete killing of weeds or the killing of weed plants above the surface of the ground by the use of chemicals, cutting, tillage, cropping system, or any or all of these in effective combination, at a time and in a manner as will effectively prevent the weed plants from maturing to bloom or flower stage.
- (b) *Garden* means a cultivated area dedicated to growing vegetables, fruits, annual and perennial plants, ornamental grasses and ground cover in a well defined location.
- (c) *Native plants* means those grasses (including prairie grasses), sedges (solid, triangular-stemmed plants resembling grasses), forbes (flowering broadleaf plants) that are native to or naturalized to the state. Native plants do not include weeds.
- (d) *Noxious weeds* means any plant listed under § 23.235(1)(a) or 66.0407(1)(b), Wis. Stats., and shall also include *Arctium* spp. (burdock), *Cirsium* and *Carduus* spp. (thistle), *Ambrosia* spp. (ragweed), *Alliaria petiolata* (garlic mustard), *Plantago lanceolata* (buckhorn), and poison ivy.
- (e) *Ornamental grasses and groundcovers* means grasses and groundcovers not indigenous to Wisconsin. Ornamental grasses do not include turf grasses and weeds.
- (f) *Planned natural landscaping* means a planned, intentional and maintained planting of native plants, ornamental grasses and groundcovers, rain gardens, shrubs and trees. Planned natural landscaping does not include any species of turf grasses and is not intended to allow a property owner to ignore lawn care duties. Planned natural landscaping does not include gardens.
- (g) *Rain garden* means a native plant garden that is designed not only to aesthetically improve properties, but also to reduce the amount of stormwater and accompanying pollutants from entering streams, rivers and lakes.

- (h) *Turf grasses* means grasses commonly used in regularly cut lawns or play areas including bluegrass, fescue or ryegrass blends or any other similar grasses.
- (i) *Unmanaged plant growth* means any grass, hay, weeds, brush or other offensive vegetation which has grown to a height of over nine inches but does not include:
 - 1. Gardens,
 - 2. Plants located on agricultural land,
 - 3. Plants located on shoreland within 35 feet of the ordinary high-water mark,
 - 4. Plants located within environmentally sensitive areas such as steep slopes, drainage ways, wetlands, and protective buffer areas, or
 - 5. Planned natural landscaping that is wholly contained within the parcel on which it is planted and maintained.

(3) *Control of noxious weeds.*

- (a) A person owning, occupying, or controlling land shall destroy all noxious weeds on the land. The person having immediate charge of any public lands shall destroy all noxious weeds on the lands.
- (b) If a person neglects to destroy all noxious weeds as required under par. (a), the weed commissioner shall destroy or have destroyed the noxious weeds. The cost of destroying the weeds shall be charged and assessed in the manner provided by § 66.0517(3)(b)1, Wis. Stats.

(4) *Unmanaged plant growth.*

- (a) A person owning, occupying, or controlling any residential lot or property adjacent to or adjoining a residential lot shall cut and remove any unmanaged plant growth on the land.
- (b) If a person neglects to cut and/or remove unmanaged plant growth as required under paragraph (a), the weed commissioner shall cut down and remove or cause to be cut down and remove the unmanaged plant growth. The cost of cutting and removing the unmanaged plant growth shall be charged and assessed in the manner provided by § 66.0627(2), Wis. Stats.

(5) *Planned natural landscaping.*

- (a) Any person wishing to maintain a planned natural landscaping area on their property may register their property with the department of public works.
- (b) Planned natural landscaping guidelines:
 - 1. Turf grass is to be eliminated and the native plants, trees and shrubs are to be planted through transplanting or seed by humans or mechanical means.
 - 2. Setbacks:

- a. Three feet from front lot line when adjacent to a public sidewalk and zero feet from front lot line if there is no public sidewalk.
- b. Three feet from rear and side lot lines.
- c. No setback is required on side and rear lot lines if there is a fence along the lot lines, or the native landscaping abuts a neighboring planned natural landscaping area public park/open space, or is adjacent to a natural area.
- d. The setback area should be regularly cut turf grass, garden beds, trees, shrubs, mulch, wood chips or landscape stone.
- e. Planned natural landscaping is to be cut to a maximum height of nine inches once annually by July 15.

(c) Complaint notification.

Any person who registers a parcel as natural landscaping with the department of public works shall receive a notice that the weed commissioner intends to take action on the parcel under this section ten business days before any action is taken. If the registered parcel owner objects within ten business days after the notice was issued, the improvement and services committee shall recommend whether the parcel is a planned natural landscaping exempt from subsection 8.11(4) to the common council. The common council shall affirm or reverse the improvement and service committee's recommendation and issue a final decision.

(6) Appeal.

Any property owner wishing to contest a charge assessed under this section may appeal to the improvement and services committee. The appeal shall be in writing and submitted to the city clerk within 30 days of the date on which the unmanaged plant growth and/or noxious weeds were cut and/or destroyed. The committee may uphold, modify or cancel the charge. This procedure for administrative review shall not be governed by ch. 68, Wis. Stats.

Appendix G

Stevens Point WI Municipal Code

Chapter 21: Building and Premises Maintenance and Occupancy

21.03 Responsibilities of Owners and Occupants

(17) No owner, operator or occupant of any premises shall suffer, permit or allow noxious weeds as defined in Section 66.96 Wisconsin Statutes (being Canadian Thistle, Leafy Sprunge and Field Bindweed) and poison ivy, and in addition thereto, sow thistle, burdock, ragweed, sandbur, lambsquarter, green foxtail, yellow foxtail, pigweed, and bull thistle are noxious weeds in the event such weeds grow in profusion on a premises.