City of Norway

P.O. Box 99 - 915 Main St., Norway, MI 49870 - Ph. 906-563-9961 - Fax 906-563-7502 - norwaymi.gov

December 19, 2016

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: Article 406-Invasive Plant Monitoring Report for 2016**
**Sturgeon Falls Project, FERC No. 2720**

Dear Secretary Bose:

Pursuant to the requirements of Article 406 of the Order Issuing New License dated January 6, 2005, as amended by Order Amending License dated December 8, 2006 and the Order Modifying and Approving Invasive Plant Monitoring Plan Pursuant to Article 406 dated May 18, 2006, the City of Norway, Michigan (City) as the licensee of the Sturgeon Falls Hydroelectric Project (FERC Project No. 2720) is providing a copy of the biennial monitoring report for the even-numbered year 2016.

Attachment 1 to this letter includes the report for the 2016 monitoring year. The report was provided to the Michigan Department of Natural Resources (MDNR) and the U.S. Fish and Wildlife Service (FWS) for comments.[1] Neither consulted party responded with comments. Documentation of Consultation is included in Attachment 2 of the letter.

Should you have any questions relative to this information, please do not hesitate to contact me at (906) 563-9961.

Sincerely,

Ray D. Anderson
City Manager

Attach.

cc: Sturgeon Falls Project, FERC No. 2720
Mr. Tim Brew – City of Norway, Electrical Foreman
Ms. Elle Gulotty-MDNR
Mr. Kyle Kruger-MDNR
Mr. Nick Utrup-FWS

[1] The report inadvertently did not include Table 1. However, comments on the report were not received from either resource agency consulted. Therefore, there is no need to re-submit to include the table. They will receive the final version when copies are sent to them as part of this submittal.

# Attachment 1
# 2016 Monitoring Report

# Invasive Watermilfoil and Aquatic Vegetation Monitoring Survey Report for Sturgeon Falls Hydroelectric Project Area

*Prepared for:*

City of Norway
Department of Power and Light
1000 Saginaw St.
Norway, MI 49870

*Prepared by:*

Lindsay Peterson
Dickinson Conservation District
420 North Hooper St.
Kingsford, MI 49802

*November 3rd, 2016*

## 1.0 Introduction

The City of Norway, Department of Power and Light, has contracted the Dickinson Conservation District to survey and quantify the Invasive Watermilfoil (*Myriophyllum spp.*) and the native aquatic vegetation in the Sturgeon Falls Hydroelectric Project area of the Menominee and Sturgeon Rivers. The survey of milfoil and native vegetation densities is done as part of the City of Norway's FERC (Federal Energy Regulatory Commission) compliance.

## 2.0 Survey Area

The stretch of river involved in the survey constitutes much of the border between Dickinson County in Michigan and Marinette County in Wisconsin. The Menominee River composes most of the survey area with the exception of about 1.5 miles of the Sturgeon River preceding where the two rivers join. The survey area spanned from Piers Gorge, upstream on the Menominee, to the hydro dam downstream on the Menominee and to an impasse on the Sturgeon where the river narrows and many islands develop, totaling approximately 6.5 miles and 400 surface acres.

## 3.0 Methods

Surveying methods involved visually inspecting all aquatic vegetation beds or areas of the river where milfoil fragments or uprooted plants could become hung up or settle out and potentially develop into a new infestation. At every site where milfoil was located, GPS coordinates were marked, density ratings were assigned, the area was calculated, and native vegetation was identified and rated for density as well.

Density ratings were based on an approximate percent cover range, as seen in Table 1. Both milfoil and native vegetation were rated on the same scale.

Table 1. Relative density ratings and approximate percent cover

| Density Rating | | Percent Cover Range |
|---|---|---|
| 1 | Found | 1-10% |
| 2 | Sparse | 11-30% |
| 3 | Moderate | 31-60% |
| 4 | Dense | 61-100% |

In a majority of areas, the plant beds were clearly defined and/or the water wasn't deep enough to conceal plants visually. Therefore, as in the 2015 survey, the rake sampling technique was generally avoided. This method, which involves tossing a rake head attached to a rope over the side of the boat to catch and pull up plants, tends to break up milfoil during sampling and can cause fragmentation. This can lead to the spread and further distribution of the invasive, especially in current systems such as rivers.

# 4.0 Results

## 4.1 Milfoil Survey Results

Quantitative milfoil surveying was conducted over a two-day period in September 2016 (the 23rd and 24th). In total, 43 individual beds, equating to approximately 73 acres of milfoil, were mapped throughout the Sturgeon Falls Project area, accounting for about 18.16% of the total surface acres, which is an approximately 1% increase from 2015 (Appendix A, Figure 1). This makes sense seeing as initial impressions were that several areas seemed more scattered about but at lower densities. Of the 73 acres of milfoil, about 9.23 acres were at the 'found' density level, while only 0.474 acres were at the dense category. The majority of the acreage was comprised of 'sparse' to 'moderate' densities (Table 2 and Appendix A, Table 1). Many of the larger beds varied in their densities throughout the entire area. Therefore, to more accurately represent the populations found, larger beds were broken up and may be assigned multiple densities for different parts but are considered a single bed overall.

Table 2. Acreage of milfoil by density

| Density | Number of Sites | Total Acres | Percent of Total Acreage |
|---|---|---|---|
| Found | 22 | 9.2295 | 2.31% |
| Sparse | 33 | 26.2290 | 6.56% |
| Moderate | 29 | 36.6953 | 9.17% |
| Dense | 2 | 0.474 | 0.12% |
| | | | |
| Totals | 86 | 72.6278 | 18.16% |
| Total Project Area Acreage = approx. 400 surface acres | | | |
| * Note: 'Number of Sites' includes every individual density rating. Many larger beds were assigned multiple density ratings. There were 43 individual beds. | | | |

Essentially, the milfoil beds mapped in 2016 were mostly unchanged since 2015. No new beds were found and all areas previously surveyed were found to have milfoil present. However, there were substantial density shifts throughout the project area. This is likely due to the late season timing of the survey. The vegetation had started to senesce and die back which impacted the observable density.

## 4.2 Weevil Analysis

Of the 43 individual beds mapped throughout the project area, only 2 beds showed evidence of weevil damage and this was at about a 5% impact level. It is possible that the last few harsher winters (for example, 2014's early snow) have played a role in a natural decline in

the weevils, potentially having impacted them during their shoreline over-wintering. Additionally, the lack of native milfoils or even pure Eurasian Milfoil strains, which the weevils tend to prefer, and the abundance of hybridized species could also be contributing to their apparently low abundance. While conclusions cannot be drawn without conducting a proper survey of the current weevil population within the project area and at past stocking locations, it seems that the population is at low levels. Yet it is important to note that these observations are merely that and that weevils were not explicitly included in the survey or its methods.

### 4.3 Native Vegetation Survey Results

Throughout the project area, 22 different native aquatic plant species were identified. The most dominant species were Wild Celery (*Vallisneria americana*), Invasive Watermilfoil (*Myriophyllum spicatum X M. sibiricum*), Coontail (*Ceratophyllum demersum*), and Clasping Leaf Pondweed (*Potamogeton richardsonii*) (Appendix A, Figure 3). While it was not the most dense plant, hybrid watermilfoil was found at 93.02% of sites (Appendix A, Table 2), which is fitting seeing as it was the focus of the survey and not all plant beds were surveyed if milfoil was not present.

Native vegetation was dense and there was a great deal of algae coating the plants, more in some areas than others. This, and the fact that ten less native species were found than in 2015, is likely attributed to the late season timing of the survey, which occurred past the height of the growing season, when waters are the warmest and most productive (especially in terms of algae). Overall the native plant community appears healthy, diverse, and productive despite the infestation of invasive milfoil throughout the community. It appears that native plant species, such as Wild Celery and coontail, can in habit a wider range of flow conditions than the invasive milfoil can. This limits where the milfoil can grow effectively and frequent high flow conditions in 2016 could have contributed to the lower densities as well.

### 4.4 Milfoil Genetic Results

Milfoil samples were not collected for genetic testing in 2016. However, despite it being difficult to accurately identify the species of milfoil in many areas due to algae growth and plant senescence, there did not appear to be much of a shift in specific species distribution of milfoil since being determined in 2015.

## 5.0 Discussion

Riverine systems are subject to an extensive variety of influences, both natural and anthropogenic. These factors all have impacts on the biological function of the river, including invasive species such as milfoil. Furthermore, the flow of rivers creates a corridor of transport for invasive species which leads to the spread and expansion of that species. Invasive milfoil was distributed throughout most of the Sturgeon Falls project area, with a majority of the

infestations being of moderate densities. There were observable natural shifts in the plant communities and the distribution and density of milfoil as compared to past surveys. Overall, the milfoil could be classified as a moderately dense infestation within the project area.

The healthy, productive state of the native plant community in the Sturgeon Falls project area is quite encouraging. The plants fill a niche that would otherwise be overtaken by milfoil due to its invasive nature This becomes very apparent in a number of the beds where the milfoil is patchy, growing only in disturbed areas, along the edges of plant beds, or in the only gaps it can find. There are also numerous plant beds where no milfoil was found.

Yet the fact that milfoil can quickly dominate disturbed areas is a concern. Any changes in water level can create habitat or destroy it. Erosion and sedimentation can disrupt native vegetation and milfoil could overtake an affected area quicker than native vegetation could recover. This is of particular concern with hybridized milfoil species, which is what most of the milfoil in the project area is, because it has been proven to germinate faster than native or Eurasian milfoil and tends to utilize more of the growing season that native species, giving it a head start in the spring and even leading to the shading of other species that begin to come in later in the season.

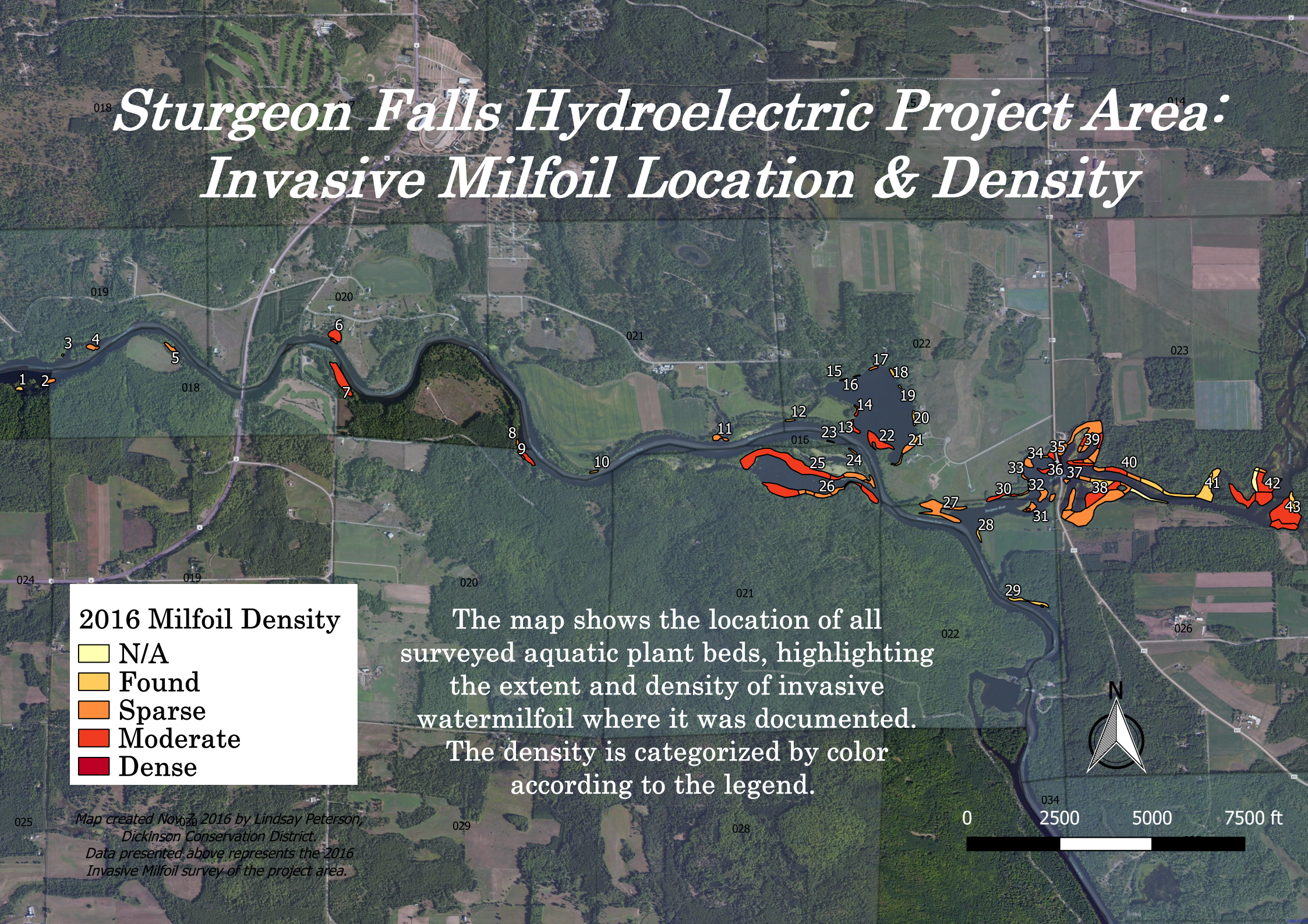
In some areas, recognition of plants was made difficult by the amount of algae present, which obscured plant structures and appearances that are key for identification. It is suggested that future surveys occur sooner in the season but still late enough to allow for optimal plant growth, ideally mid-August. Many of the milfoil beds within the project area are not very large or are composed of very sparse, patchy populations. Ultimately, it is suggested that monitoring of both the milfoil and the natural plant community continue.

# Appendix A

## 2016 Data

*Map of Milfoil Bed Location and Density – Figure 1*
*Attributes of Sturgeon Falls Milfoil Beds – Table 1*
*Aquatic Vegetation Analysis – Table 2, Figure 2*

# Sturgeon Falls Hydroelectric Project Area: Invasive Milfoil Location & Density




*Map created Nov 7, 2016 by Lindsay Peterson, Dickinson Conservation District.*
*Data presented above represents the 2016 Invasive Milfoil survey of the project area.*

Table 1. Attributes of invasive milfoil beds of the Sturgeon Falls Project Area

| Bed ID | Density | Density % | Acres | Estimated Weevil Damage % |
|---|---|---|---|---|
| 1 | Found | 10 | 0.0023 | 0% |
| 2 | Sparse | 15 | 0.23 | 0% |
| 3 | Found | 1 | 0.0002 | 0% |
| 4 | Sparse | 30 | 0.23 | 5% |
| 5 | Sparse | 30 | 0.45 | 0% |
| 6 | Moderate | 35 | 0.8 | 0% |
| 6 | Moderate | 35 | 0.023 | 0% |
| 7 | Moderate | 45 | 1.5 | 0% |
| 8 | Sparse | 20 | 0.23 | 0% |
| 9 | Moderate | 45 | 0.7 | 0% |
| 9 | Moderate | 45 | 0.0023 | 0% |
| 10 | Found | 10 | 0.1 | 0% |
| 11 | Sparse | 20 | 0.45 | 0% |
| 12 | Found | 5 | 0.023 | 0% |
| 13 | Moderate | 60 | 0.5 | 0% |
| 14 | Moderate | 40 | 0.23 | 0% |
| 15 | Found | 10 | 0.023 | 0% |
| 16 | Found | 10 | 0.05 | 0% |
| 17 | Sparse | 15 | 0.1 | 0% |
| 18 | Found | 10 | 0.15 | 0% |
| 19 | Found | 10 | 0.05 | 0% |
| 20 | Found | 5 | 0.3 | 0% |
| 21 | Found | 5 | 0.312 | 0% |
| 21 | Found | 10 | 0.137 | 0% |
| 21 | Sparse | 20 | 0.567 | 0% |
| 22 | Moderate | 40 | 1.8 | 5% |
| 23 | N/A | 0 | 0 | 0% |
| 24 | Sparse | 5 | 0.023 | 0% |
| 25 | Moderate | 35 | 6.8 | 0% |
| 25 | Moderate | 40 | 0.501 | 0% |
| 25 | Sparse | 30 | 1.345 | 0% |
| 25 | Sparse | 25 | 0.51 | 0% |
| 26 | Moderate | 60 | 3.1 | 0% |
| 26 | Moderate | 35 | 1.2 | 0% |
| 26 | Moderate | 35 | 0.356 | 0% |
| 26 | Sparse | 30 | 0.358 | 0% |
| 26 | Sparse | 20 | 0.364 | 0% |
| 26 | Sparse | 15 | 0.768 | 0% |
| 26 | Sparse | 30 | 0.599 | 0% |
| 27 | Sparse | 30 | 2.5 | 0% |
| 28 | Found | 5 | 0.23 | 0% |
| 29 | Found | 5 | 1.231 | 0% |
| 30 | Found | 5 | 0.103 | 0% |
| 30 | Moderate | 45 | 0.168 | 0% |
| 30 | Moderate | 45 | 0.6 | 0% |

| | | | | |
|---|---|---|---|---|
| 30 | N/A | 0 | 0 | 0% |
| 30 | Sparse | 15 | 0.224 | 0% |
| 31 | Moderate | 35 | 0 | 0% |
| 31 | Sparse | 15 | 0.85 | 0% |
| 32 | Sparse | 15 | 1.15 | 0% |
| 33 | Sparse | 15 | 0.3 | 0% |
| 34 | Sparse | 15 | 0.68 | 0% |
| 35 | Found | 10 | 0.2 | 0% |
| 35 | Moderate | 50 | 0.32 | 0% |
| 35 | Sparse | 15 | 0.11 | 0% |
| 36 | Moderate | 45 | 0.767 | 0% |
| 37 | Sparse | 15 | 0.12 | 0% |
| 38 | Dense | 80 | 0.32 | 0% |
| 38 | Found | 5 | 1.036 | 0% |
| 38 | Moderate | 40 | 2.712 | 0% |
| 38 | N/A | 0 | 0 | 0% |
| 38 | Sparse | 15 | 0.859 | 0% |
| 38 | Sparse | 30 | 0.74 | 0% |
| 38 | Sparse | 25 | 0.323 | 0% |
| 38 | Sparse | 30 | 5.516 | 0% |
| 39 | Dense | 75 | 0.154 | 0% |
| 39 | Moderate | 40 | 0.002 | 0% |
| 39 | Moderate | 35 | 0.663 | 0% |
| 39 | Moderate | 50 | 0.298 | 0% |
| 39 | Moderate | 35 | 0.32 | 0% |
| 39 | Sparse | 25 | 0.151 | 0% |
| 39 | Sparse | 15 | 0.613 | 0% |
| 39 | Sparse | 25 | 0.13 | 0% |
| 39 | Sparse | 25 | 4.561 | 0% |
| 40 | Found | 10 | 0.85 | 0% |
| 40 | Found | 5 | 0.9 | 0% |
| 40 | Moderate | 35 | 0.962 | 0% |
| 40 | Sparse | 25 | 0.452 | 0% |
| 40 | Sparse | 30 | 0.528 | 0% |
| 41 | Found | 10 | 1.84 | 0% |
| 41 | Found | 10 | 0.67 | 0% |
| 42 | Found | 10 | 0.172 | 0% |
| 42 | Moderate | 35 | 1.69 | 0% |
| 42 | Moderate | 50 | 2.23 | 0% |
| 42 | Moderate | 35 | 2.167 | 0% |
| 42 | N/A | 0 | 0 | 0% |
| 42 | N/A | 0 | 0 | 0% |
| 42 | Sparse | 25 | 0.198 | 0% |
| 43 | Found | 10 | 0.85 | 0% |
| 43 | Moderate | 50 | 1.326 | 0% |
| 43 | Moderate | 45 | 4.96 | 0% |

Table 2. Aquatic Vegetation of the Sturgeon Falls Project Area

| Common Name | *Scientific Name* | Average Density | Relative Frequency |
|---|---|---|---|
| Wild celery | *Vallisneria americana* | 2.5116 | 86.05% |
| Invasive Watermilfoil | *Myriophyllum spicatum X sibiricum* | 1.7907 | 93.02% |
| Coontail | *Ceratophyllum demersum* | 1.7209 | 72.09% |
| Clasping-leaf pondweed | *Potamogeton richardsonii* | 1.1628 | 67.44% |
| Flat-stem pondweed | *Potamogeton zosteriformis* | 0.9535 | 58.14% |
| White-stem pondweed | *Potamogeton praelongus* | 0.9535 | 62.79% |
| White water lily | *Nymphaea odorata* | 0.8140 | 51.16% |
| Waterweed | *Elodea spp.* | 0.6279 | 30.23% |
| Duckweed | *Lemna spp.* | 0.4884 | 25.58% |
| Yellow pond lily | *Nuphar spp.* | 0.4651 | 34.88% |
| Large-leaf pondweed | *Potamogeton amplifolius* | 0.3721 | 23.26% |
| Sago pondweed | *Stuckenia pectinata* | 0.3023 | 20.93% |
| Small pondweed | *Potamogeton pusillus* | 0.2791 | 11.63% |
| Water marigold | *Bidens beckii* | 0.2558 | 16.28% |
| Floating-leaf pondweed | *Potamogeton natans* | 0.2326 | 11.63% |
| River bulrush | *Scirpus fluviatalis* | 0.1860 | 13.95% |
| Common bladderwort | *Utricularia vulgaris* | 0.0930 | 9.30% |
| Illinois pondweed | *Potamogeton illinoisis* | 0.0698 | 2.33% |
| Mare's tail | *Hippuris vulgaris* | 0.0465 | 4.65% |
| Slender naiad | *Najas flexilis* | 0.0465 | 2.33% |
| Soft-stem bulrush | *Schoenoplectus tabernaemontani* | 0.0465 | 2.33% |
| Cattails | *Typha spp.* | 0.0233 | 2.33% |

Average Density: The average density is based on the number of observations for each density rating divided by the total number of sampling sites. The average density corresponds to the same density rating scale of 1-4 for Found - Dense.

Relative Frequency: The relative frequency is the percentage of sites out of the total number of sites where the plant was observed.

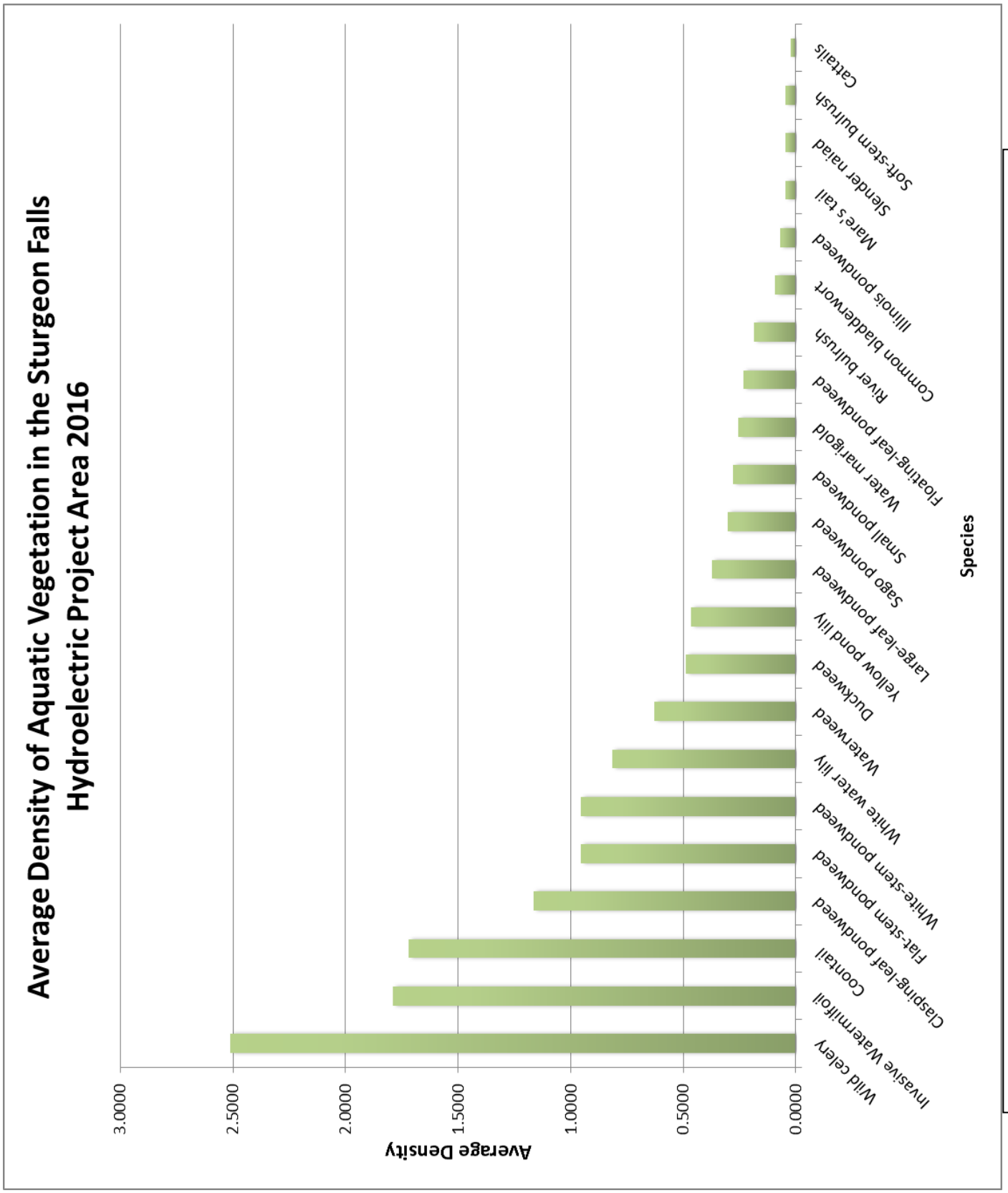



Figure 2. Average density of aquatic vegetation in the Sturgeon Falls Project area in 2016.

# Attachment 2
# Documentation of Consultation

**Shawn Puzen**

| | |
|---|---|
| **From:** | Shawn Puzen |
| **Sent:** | Monday, November 14, 2016 11:23 AM |
| **To:** | KRUGERK@michigan.gov; Gulotty, Elle (DNR); Burr_fisher@fws.gov |
| **Cc:** | Ray Anderson; Shawn Puzen |
| **Subject:** | Sturgeon Falls Annual Invasive Monitoring Report |
| **Attachments:** | 2016MilfoilSurvey-CityofNorway2.pdf; MilfoilSurveyReport2016.pdf |

Good Morning!

Enclosed is the annual invasive species monitoring report for the 2016 season at Sturgeon Falls.

Please provide your comments on the report as soon as possible, but no later than **EOB December 13, 2016**. If you do not respond by EOB December 13, 2016, The City of Norway will assume you do not have comments.

Please feel free to contact me with any questions.

Thanks!

**Shawn Puzen | FERC Licensing & Compliance Senior Project Manager**
Mead & Hunt | 1345B North Road | Green Bay, WI 54313
Direct: 920-593-6865 | Mobile: 920-639-2480
shawn.puzen@meadhunt.com | meadhunt.com
https://www.linkedin.com/in/shawnpuzen

**Shawn Puzen**

**From:** Shawn Puzen
**Sent:** Friday, November 18, 2016 11:40 AM
**To:** Utrup, Nick
**Subject:** FW: Sturgeon Falls Annual Invasive Monitoring Report
**Attachments:** 2016MilfoilSurvey-CityofNorway2.pdf; MilfoilSurveyReport2016.pdf

**Categories:** Filed by Newforma

Sorry Nick!

I sent this to Burr Fisher instead.

Thanks!

**Shawn Puzen | FERC Licensing & Compliance Senior Project Manager**
Mead & Hunt | 1345B North Road | Green Bay, WI 54313
Direct: 920-593-6865 | Mobile: 920-639-2480
shawn.puzen@meadhunt.com | meadhunt.com
https://www.linkedin.com/in/shawnpuzen

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https://www.linkedin.com/in/shawnpuzen

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*Prepared for:*

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1000 Saginaw St.
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*Prepared by:*

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Milfoil samples were not collected for genetic testing in 2016. However, despite it being difficult to accurately identify the species of milfoil in many areas due to algae growth and plant senescence, there did not appear to be much of a shift in specific species distribution of milfoil since being determined in 2015.

## 5.0 Discussion

Riverine systems are subject to an extensive variety of influences, both natural and anthropogenic. These factors all have impacts on the biological function of the river, including invasive species such as milfoil. Furthermore, the flow of rivers creates a corridor of transport for invasive species which leads to the spread and expansion of that species. Invasive milfoil was distributed throughout most of the Sturgeon Falls project area, with a majority of the

infestations being of moderate densities. There were observable natural shifts in the plant communities and the distribution and density of milfoil as compared to past surveys. Overall, the milfoil could be classified as a moderately dense infestation within the project area.

The healthy, productive state of the native plant community in the Sturgeon Falls project area is quite encouraging. The plants fill a niche that would otherwise be overtaken by milfoil due to its invasive nature This becomes very apparent in a number of the beds where the milfoil is patchy, growing only in disturbed areas, along the edges of plant beds, or in the only gaps it can find. There are also numerous plant beds where no milfoil was found.

Yet the fact that milfoil can quickly dominate disturbed areas is a concern. Any changes in water level can create habitat or destroy it. Erosion and sedimentation can disrupt native vegetation and milfoil could overtake an affected area quicker than native vegetation could recover. This is of particular concern with hybridized milfoil species, which is what most of the milfoil in the project area is, because it has been proven to germinate faster than native or Eurasian milfoil and tends to utilize more of the growing season that native species, giving it a head start in the spring and even leading to the shading of other species that begin to come in later in the season.

In some areas, recognition of plants was made difficult by the amount of algae present, which obscured plant structures and appearances that are key for identification. It is suggested that future surveys occur sooner in the season but still late enough to allow for optimal plant growth, ideally mid-August. Many of the milfoil beds within the project area are not very large or are composed of very sparse, patchy populations. Ultimately, it is suggested that monitoring of both the milfoil and the natural plant community continue.

# Appendix A

## 2016 Data

*Map of Milfoil Bed Location and Density – Figure 1*
*Attributes of Sturgeon Falls Milfoil Beds – Table 1*
*Aquatic Vegetation Analysis – Table 2, Figure 2*

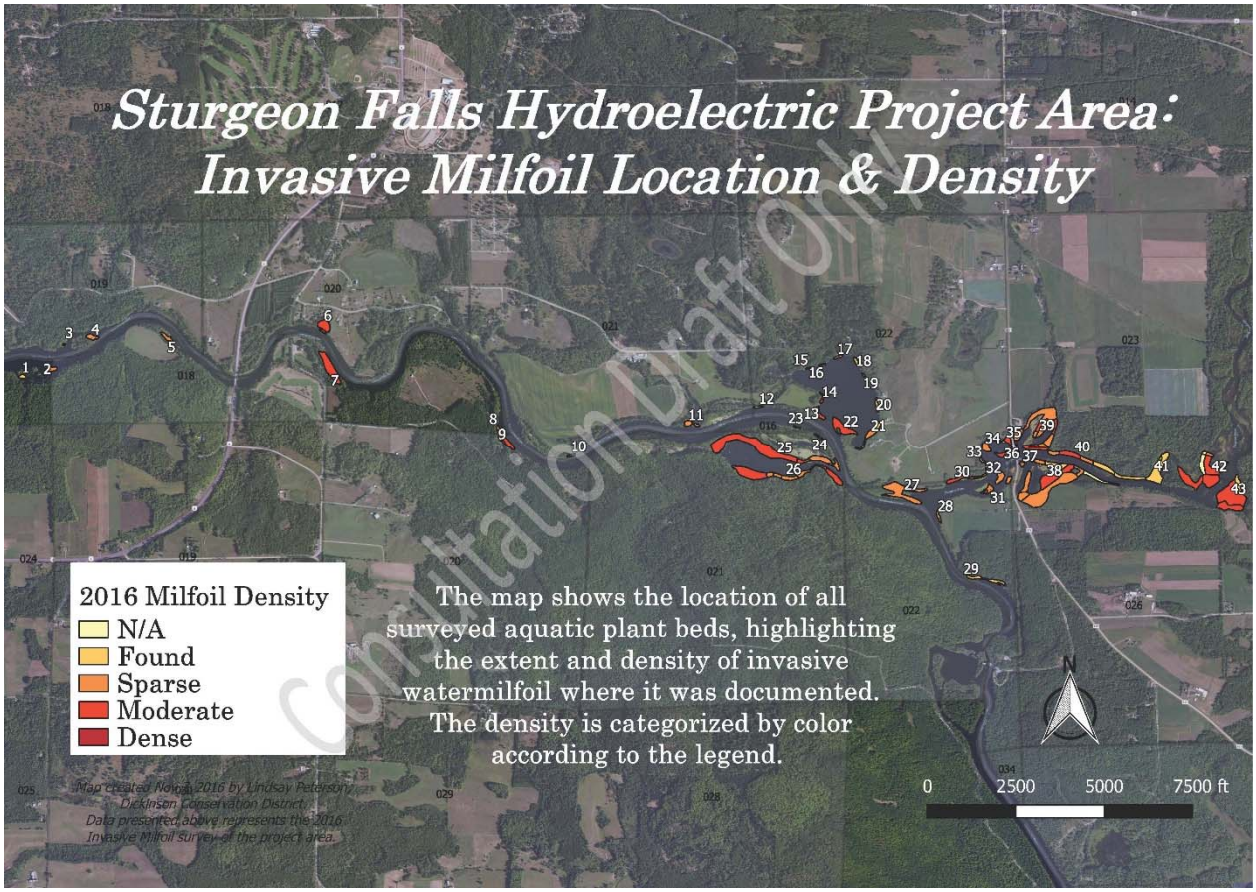

Table 2. Aquatic Vegetation of the Sturgeon Falls Project Area

| Common Name | *Scientific Name* | Average Density | Relative Frequency |
|---|---|---|---|
| Wild celery | *Vallisneria americana* | 2.5116 | 86.05% |
| Invasive Watermilfoil | *Myriophyllum spicatum X sibiricum* | 1.7907 | 93.02% |
| Coontail | *Ceratophyllum demersum* | 1.7209 | 72.09% |
| Clasping-leaf pondweed | *Potamogeton richardsonii* | 1.1628 | 67.44% |
| Flat-stem pondweed | *Potamogeton zosteriformis* | 0.9535 | 58.14% |
| White-stem pondweed | *Potamogeton praelongus* | 0.9535 | 62.79% |
| White water lily | *Nymphaea odorata* | 0.8140 | 51.16% |
| Waterweed | *Elodea spp.* | 0.6279 | 30.23% |
| Duckweed | *Lemna spp.* | 0.4884 | 25.58% |
| Yellow pond lily | *Nuphar spp.* | 0.4651 | 34.88% |
| Large-leaf pondweed | *Potamogeton amplifolius* | 0.3721 | 23.26% |
| Sago pondweed | *Stuckenia pectinata* | 0.3023 | 20.93% |
| Small pondweed | *Potamogeton pusillus* | 0.2791 | 11.63% |
| Water marigold | *Bidens beckii* | 0.2558 | 16.28% |
| Floating-leaf pondweed | *Potamogeton natans* | 0.2326 | 11.63% |
| River bulrush | *Scirpus fluviatalis* | 0.1860 | 13.95% |
| Common bladderwort | *Utricularia vulgaris* | 0.0930 | 9.30% |
| Illinois pondweed | *Potamogeton illinoisis* | 0.0698 | 2.33% |
| Mare's tail | *Hippuris vulgaris* | 0.0465 | 4.65% |
| Slender naiad | *Najas flexilis* | 0.0465 | 2.33% |
| Soft-stem bulrush | *Schoenoplectus tabernaemontani* | 0.0465 | 2.33% |
| Cattails | *Typha spp.* | 0.0233 | 2.33% |

Average Density: The average density is based on the number of observations for each density rating divided by the total number of sampling sites. The average density corresponds to the same density rating scale of 1-4 for Found - Dense.

Relative Frequency: The relative frequency is the percentage of sites out of the total number of sites where the plant was observed.

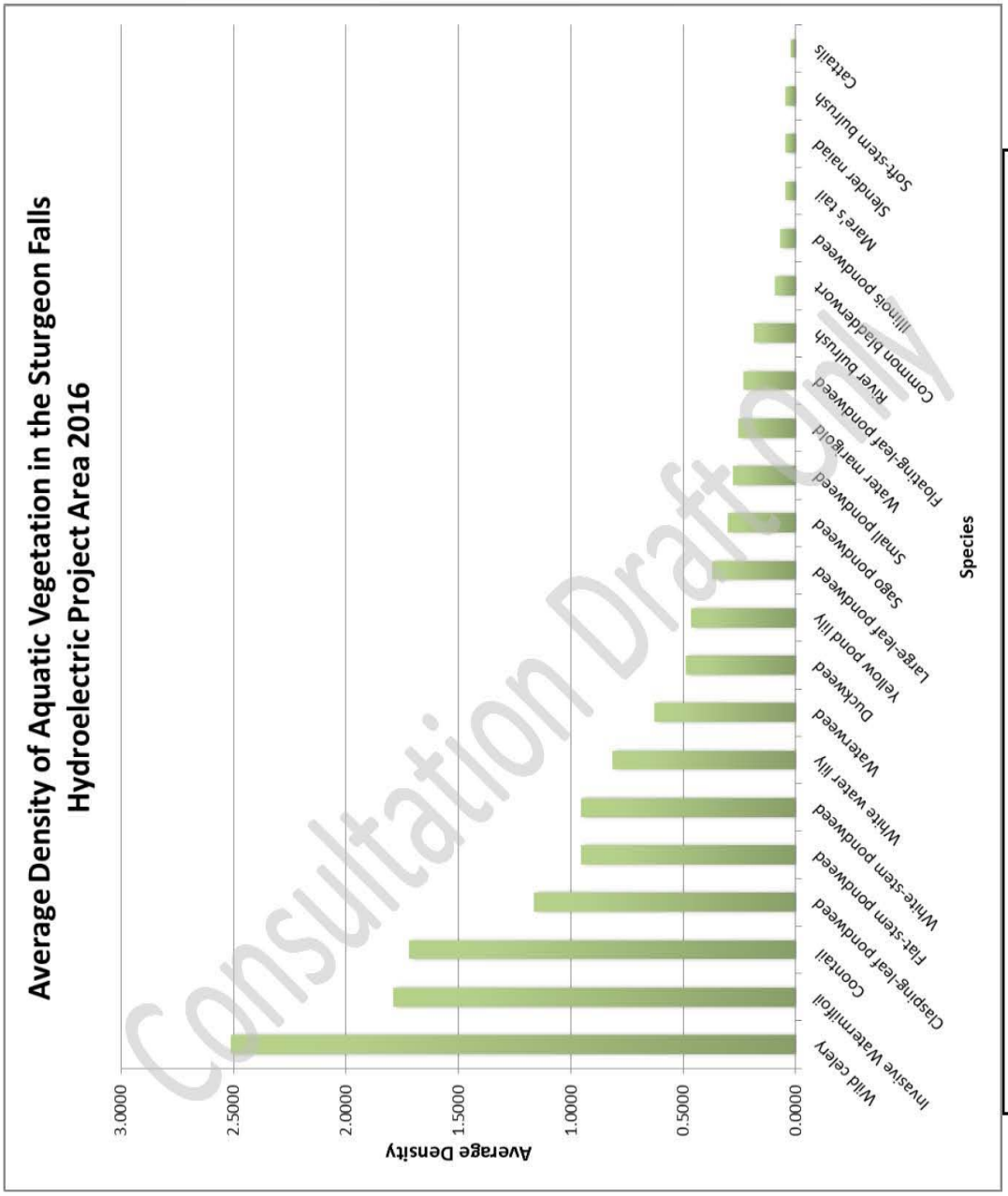


Figure 2. Average density of aquatic vegetation in the Sturgeon Falls Project area in 2016.

The Michigan Department of Natural Resources and the U.S. Fish and Wildlife Service did not respond with comments.

Document Content(s)