

Appendix A

Environmental Impact Worksheet

Environmental Information Worksheet (EIW)



**Minnesota Pollution
Control Agency**

520 Lafayette Road
St. Paul, MN 55155-4194

Environmental Information Worksheet (EIW) Form

Clean Water State Revolving Fund

Minnesota Rule Chapter 7077.0272, subp.
2.a.F. Minnesota Rule Chapter 7077.0277,
subp. 3.E

Doc Type: Environmental Information Worksheet

Eligible applicants seeking funds for clean water (stormwater and wastewater) projects through the Clean Water State Revolving Fund (commonly referred to as the CWSRF Program) are required by Minn. R. ch. 7077.0272, subp. 2.a. F. and Minn. R. ch. 7077.0277, subp. 3.E., to complete an Environmental Information Worksheet (EIW). This information will be used to assess environmental impacts, if any, caused by the project.

For assistance with this worksheet, please visit the Minnesota Pollution Control Agency's website at <http://www.pca.state.mn.us/publications/p-ear1-02.pdf> for detailed instructions on completing this form.

1. **Project title:** City of Foley WWTF Facilities Plan
2. **Proposer:** City of Foley
Contact person: Jessica Hedin
Title: Project Manager
Address: 3535 Vadnais Center Drive
St. Paul, MN 55110
Phone: 320.229.4369
Fax: 888.908.8166
3. **Project location:**
County: Benton
City/Twp: City of Foley, Gilman Twp, St George Twp, Minden Twp, City of St Cloud

Existing Wastewater Facilities

<u>SE</u> 1/4	<u>NE</u> 1/4	Section: <u>35</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u>SW</u> 1/4	<u>NW</u> 1/4	Section: <u>35</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u>NW</u> 1/4	<u>SW</u> 1/4	Section: <u>36</u>	Township: <u>37 N</u>	Range: <u>29 W</u>

City's preferred alternative linear route

<u> </u> 1/4	<u> </u> 1/4	Section: <u>26</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>27</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>33</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>34</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>35</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>36</u>	Township: <u>37 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>4</u>	Township: <u>36 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>5</u>	Township: <u>36 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>6</u>	Township: <u>36 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>7</u>	Township: <u>36 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>8</u>	Township: <u>36 N</u>	Range: <u>29 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>12</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>14</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>22</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>23</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>27</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>28</u>	Township: <u>36 N</u>	Range: <u>30 W</u>
<u> </u> 1/4	<u> </u> 1/4	Section: <u>29</u>	Township: <u>36 N</u>	Range: <u>30 W</u>

City preferred alternative is a linear improvements project. Please refer to attached figures for more detailed route location.

Tables, Figures, and Appendices attached to the EIW:

- County map showing the general location of the project;
- United States Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
- Site plan showing all significant project and natural features.

4. Description:

- Provide a project summary of 50 words or less.
The City of Foley's preferred alternative for wastewater treatment is the decommission of two pond cells (Birch Pond), dredging and conversion of three pond cells to equalization (Golf Pond), and installation of lift stations and forcemains along the State Highway 23 corridor, connecting to St. Cloud's system at Energy Drive.
- Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.
See attached summary of recommended improvements.
- Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.
The purpose of the project is a 20 year planning study to provide additional flow capacity to the Foley wastewater treatment system. The current pond system is at its hydraulic capacity and additional capacity is required for additional development in the community.
- Are future stages of this development including development on any outlots planned or likely to happen? ☐ Yes ☒ No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.
N/A
- Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No
If yes, briefly describe the past development, timeline and any past environmental review.
N/A

5. Project magnitude data

Total Project Area (acres) 67 acres (both pond systems) or Length (miles) 11.5 miles (forcemain route)
 Number of Residential Units: N/A Unattached: N/A
 Attached: N/A Maximum units per building: N/A
 Commercial/Industrial/Institutional Building Area (gross floor space): Total square feet 300 (control buildings for lift stations)

Indicate area of specific uses (in square feet):

Office	<u>0</u>	Manufacturing	<u>0</u>
Retail	<u>0</u>	Other Industrial	<u>0</u>
Warehouse	<u>0</u>	Institutional	<u>0</u>
Light Industrial	<u>300 sqft</u>	Agricultural	<u>0</u>
Other Commercial (specify)	<u>0</u>		
Building height: <u>10 feet</u>		If over 2 stories, compare to heights of nearby buildings	<u>N/A</u>

6. Permits and approvals required.

List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of government	Type of application	Status
City of Foley	Building permit	Pending Design
MPCA	Stormwater Pollution and Prevention Plan	Pending Design
MPCA	Stormwater Permit	Pending Design
MPCA	Plans and Specifications Approval	Pending Design
MPCA	Facility Plan	Pending Design
MnDNR/Corps of Engineers/Watershed	Wetlands Permit (WACA)	Pending Design
MnDNR	License to Cross Elk River	Pending Design
MnDNR	License to Cross Mayhew Creek	Pending Design
MnDNR	License to Cross Unnamed Stream.	Pending Design
MnDNR	License to Cross Unnamed Stream.	Pending Design
MnDOT	Plans and Specifications Approval	Pending Design
Watershed District	Erosion Control Permit	Pending Design

7. Land use.

Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The current wastewater ponds are located on the east side of the City of Foley. The surrounding land uses include a municipal park, public golf course, and single/multi-family housing developments. The corridor for the City's preferred alternative largely follows Highway 23 between Foley and St. Cloud. The highway 23 corridor is largely agricultural land, with intermittent farmsteads and commercial development. 35th Ave NE and Energy Drive, where the forcemain connects with the St. Cloud collection system, is a commercial/industrial park.

It is anticipated that improvements will decommission on of Foley's existing pond systems, while converting the remaining system to an equalization pond. The improvements will result in reducing non-conforming adjacent land uses by the decommissioning of one system without the expansion of the remaining. The preliminary forcemain route is anticipated to be installed using horizontal directional drilling to minimize the impact to existing facilities and land uses. As an underground utility, the majority of the system will not impact above ground activities. The forcemain is anticipated to include two lift station sites located along the forcemain route, as well as requiring periodic access structures for clean-outs and air/vacuum relief valves. There are no anticipated existing environmental hazards along the proposed forcemain route or at the existing wastewater facilities that the City is aware of. The proposed forcemain route using the highway 23 corridor is also used for natural gas pipelines. Utility locates will be requested and the location of facilities will be incorporated into the final forcemain route and plans to prevent potential damage or interruption during construction, operation, and maintenance.

8. Cover types.

Estimate the acreage of the site with each of the following cover types before and after development:

	Before	After		Before	After
Types 1-8 wetlands			Lawn/landscaping		27 ac.
Wooded/forest			Impervious Surfaces		
Brush/grassland			Other (describe)	67 ac. (ponds)	40 ac. (ponds)
Cropland					
			Total	67 ac.	67 ac.

9. Fish, wildlife, and ecologically sensitive resources.

- a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

Stoney Brook is situated between the existing Birch and Golf Wastewater Pond systems. Decommissioning of Birch and dredging of Golf would occur adjacent to this waterway. Noise and traffic from construction activities would have short-term impacts on this wetland area surrounding Stoney Brook. The City's preferred alternative to regionalize with St. Cloud would remove the two existing wastewater discharges to Stoney Brook, instead conveying wastewater to St. Cloud for advanced treatment at a water resource recovery facility prior to discharge to the Mississippi River.

SWPPP and BMPs such as erosion control booms, blankets, and silt fences would be utilized to control sedimentation runoff into the creek and other waterways/wetlands along the proposed forcemain route. It is anticipated that horizontal directional drilling would be utilized were possible for forcemain installation and wetland crossings.

Wastewater pond sites are surrounded by a 6-foot chain link fence which prevents most wildlife from entering those sites. The birch pond fence would be removed as part of the decommissioning project, and it is not anticipated that the golf pond fence would need expansion.

Construction limits identified as part of the project drawings will indicate boundaries of disturbance, as well as mitigate measures such as erosion control to reduce impacts to wetlands and other habitat areas along the forcemain route. The preliminary forcemain route utilizes the highway 23 corridor, which is already a highly disturbed route due to construction of the roadway and adjacent utilities.

- b. Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site?

☐ Yes ☒ No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the Minnesota Department of Natural Resources (DNR) Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: #####

Describe measures to minimize or avoid adverse impacts.

Will be updated when response is received.

10. Physical impacts on water resources.

Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch?

☐ Yes ☒ No

If yes, identify water resource affected. Describe alternatives considered and proposed mitigation measures to minimize impacts. Give the DNR Protected Waters Inventory (PWI) number(s) if the water resources affected are on the PWI.

N/A

11. Water use.

Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?

☒ Yes ☐ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

It is anticipated that dewatering will be required for installation of new conveyance lift stations, as well as drilling/receiving pits for the forcemain installation. Decommissioning and dredging of the existing wastewater ponds will require dewatering of the stored solids and discharge of the dewatering centrate/filtrate through either normal discharge of the pond system or treatment at the St. Cloud facility.

12. Water-related land use management districts.

Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?

☒ Yes ☐ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

FEMA indicates that Birch pond is considered located in a Flood Hazard Zone A location (100 year flood plain). The pond is surrounded by elevated embankments to separate the storage cells from the surrounding area. The City's preferred alternative involve decommissioning of Birch pond, which involves the removal of stored sludge, demolition of existing flow control structures, breakup of clay liner, and grading of embankments. No structures or utilities will be constructed at the Birch pond site.

13. Water surface use.

Will the project change the number or type of watercraft on any water body?

☐ Yes ☒ No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

N/A

14. Erosion and sedimentation.

Give the acreage to be graded or excavated and the cubic yards of soil to be moved: 27 ac Acres: _____ cubic yards.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

Decommissioning of Birch pond will involve the permanent regrading of approximately 27 acres that currently constitute the pond system. Other excavation is anticipated to be temporary for installation of a forcemain system including valve structures and lift stations, as well as improvements to the Golf pond system including modification to the influent and discharge structures.

Highly erodible soils along the proposed forcemain route have not been identified. The majority of the route is 0 to 3% existing ground slopes. The preliminary forcemain route is located outside of the in slope of highway 23. The topographic conditions along the highway 23 route are such that little out slope was required for construction of the access corridor.

The route does increase in grad as the system approaches St. Cloud. SWPPP and BMPs such as erosion control booms, blankets, and silt fences would be utilized to control sedimentation runoff into the creek and other waterways/wetlands along the proposed forcemain route. It is anticipated that horizontal directional drilling would be utilized were possible for forcemain installation and wetland crossings.

Construction limits identified as part of the project drawings will indicate boundaries of disturbance, as well as mitigate measures such as erosion control to reduce impacts to wetlands and other habitat areas along the forcemain route. The preliminary forcemain route utilizes the highway 23 corridor, which is already a highly disturbed route due to construction of the roadway and adjacent utilities.

15. Water quality – surface-water runoff.

- a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm water pollution prevention plans.

Improvements to Golf pond will not increase or decrease stormwater runoff from the site as the pond impoundments will remain in place. The City's preferred alternative forcemain system is an underground utility which will not generate additional runoff of significant volume. Lift station sites will likely include two 10-foot diameter at-grade concrete cover slabs, a small 150 sqft control building and access drive. Decommissioning of Birch pond will result in a large turf greenspace which is adjacent to the Stoney Brook marshy wetland.

- b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

The existing wastewater treatment ponds are located adjacent to Stoney Brook. Stoney Brook eventually discharges to Rice Lake, which outflows to Rice Creek to Elk Lake, which outfalls to Elk River to Orono Lake, back to the Elk River and into the Mississippi River.

Four intermittent stream, stream, and River crossing are required along the forcemain route to St. Cloud. The first unnamed creek near Hwy 25 drains to Stoney Brook. A second unnamed creek near CR 60 drains to the Elk River. A crossing for the Elk River flows to Elk Lake and continues as described previously. The final crossing is Mayhew Creek which also flows to the Elk River.

There is not anticipated long term impacts to runoff quality received by the streams as a result of recommended improvements.

16. Water quality – wastewater.

- a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

Wastewater included as part of the City of Foley's collection system is generated within municipal boundaries. The City of Foley has one significant industrial user which separates high-strength and low-strength waste. Low strength is discharged to the municipal collection system and high-strength is trucked to St. Cloud. The City requires the industrial user to take periodic low-strength wastewater samples to monitor compliance with the SIU agreement.

The remaining dischargers are a combination of residential, institutional, commercial, and light industrial users. The City does have several meat processors which are not covered with SIU agreements, but do discharge to the municipal collection system.

- b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

The City of Foley operates a controlled discharge pond municipal wastewater treatment facility to treat wastewater generated within the City. Each pond is supplied flow from an influent lift station. Birch Lift Station primarily provides flow to Birch Pond, and Broadway Lift Station primarily provides flow to Golf Pond, however each lift station is piped to discharge to either Pond. The facility operates two pond systems, Birch Pond consisting of one primary and one secondary cell, and Golf Pond consisting of two primary and one secondary cell. The ponds are located within the municipal boundary of Foley as shown in Figure 1. Access to Birch pond is attained from Oak Drive, through Lion's Park, and access to Golf Pond is attained from 55th Street South (County Highway 51), through the municipal yard waste site. The existing wastewater treatment ponds are located adjacent to Stoney Brook. Stoney Brook eventually discharges to Rice Lake, which outflows to Rice Creek to Elk Lake, which outfalls to Elk River to Orono Lake, back to the Elk River and into the Mississippi River.

The City's preferred alternative would result in removal of the discharge locations to Stoney Brook. Wastewater would be pumped to St. Cloud's collection system for treatment at their regional facility. St Cloud has sufficient capacity in their treatment process to add the additional flow and load associated with Foley's wastewater. St Cloud currently receives at treats approximately 10 million gallons of day of wastewater flow, therefore the addition of flow from Foley would add an additional 5.7% to St. Cloud's discharge flow.

St. Cloud is an advanced treatment biological facility with biosolids land application, effluent reuse, and nutrient recovery. The St Cloud facility is continuously staffed and better equipped and positioned to treat current and potential future wastewater limits which may otherwise be required by the City of Foley.

- c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

The City's preferred alternative would result in removal of the discharge locations to Stoney Brook. Wastewater would be pumped to St. Cloud's collection system for treatment at their regional facility. St Cloud has sufficient capacity in their treatment process to add the additional flow and load associated with Foley's wastewater. St Cloud currently receives at treats approximately 10 million gallons of day of wastewater flow, therefore the addition of flow from Foley would add an additional 5.7% to St. Cloud's discharge flow.

The City of Foley would be required to meet wastewater characteristics outlined by a user agreement with the city of St Cloud. The user agreement generally outlines maximum wastewater parameters, establishes a user fee rate based on wastewater flow and strength, and requires odor control as regionalization lift stations.

St. Cloud is an advanced treatment biological facility with biosolids land application, effluent reuse, and nutrient recovery. The St Cloud facility is continuously staffed and better equipped and positioned to treat current and potential future wastewater limits which may otherwise be required by the City of Foley.

- d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

N/A

17. Geologic hazards and soil conditions.

- a. Approximate depth (in feet) to Groundwater TBD minimum; TBD average.
Bedrock: TBD minimum; TBD average.

Describe any of the following geologic site hazards to groundwater and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

There are no known sinkholes, shallow limestone formations or karst conditions near the existing wastewater treatment facilities or along the preliminary forcemain route between Foley and St. Cloud.

- b. Describe the soils on the site, giving U.S. Soil Conservation Service (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

A geological survey will be conducted prior to design to determine the in-situ soils and applicability for recommended improvements. Soil characteristics, along with right-of-way and existing improvements will influent the final forcemain route to mitigate impacts to utilities, land owners, wetlands, and habitat.

18. Solid wastes, hazardous wastes, storage tanks.

- a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Decommissioning and dredging of wastewater ponds will require the dewatering and disposal of stabilized waste solids at the bottom of the treatment cells. A sludge depth analysis for primary cells was conducted as part of the facility planning document. Sludge samples were also collected to test for heavy metals in accordance with MPCA requirements for land application. It is anticipated that approximate 8.8 million wet gallons of sludge will be removed, then dewatered, and ultimately land applied during construction.

Some general construction demolition waste will be generated as a result of improvements. Contractors will be required to provide manifests which indicate proper disposal of general construction waste. Prior to design a hazardous waste assessment will be conducted to survey existing facilities for any hazardous substances (lead paint, asbestos, mercury, etc.) which may require special disposal during construction.

- b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

There are no toxic or hazardous materials used or present at the existing wastewater facilities the City is aware of.

- c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

N/A

19. Traffic.

Parking spaces added:

0

Existing spaces (if project involves expansion):

0

Estimated total average daily traffic generated:

0

Estimated maximum peak hour traffic generated (if known) and its timing:

0

Provide an estimate of the impact on traffic congestion affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

Wastewater stabilization ponds do not generate significant traffic as a result of operation. Periodic maintenance during summer months including mowing are required, and more frequent visits during spring and fall during discharge are required. Influent samples are collected from lift station prior to the pond systems.

Similarly, a regionalized collection system does not generate a significant amount of traffic. Periodic maintenance for pumps, electrical equipment, generators, and instrumentation are required. Samples are collected at lift station prior to be pumped to St. Cloud.

20. Vehicle-related air emissions.

Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *Environmental Assessment Worksheet (EAW) Guidelines* about whether a detailed air quality analysis is needed.

No significant changes in traffic are anticipated as a result of the improvements project.

21. Stationary source air emissions.

Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

Each lift station will be equipped with an emergency power backup generator. These generators will need to meet EPA requirements for exhaust particulates.

Wastewater stabilization ponds may be a source of carbon dioxide, hydrogen sulfide, and methane as a result of anaerobic processes. Regionalization with St. Cloud will result in aerobic treatment of liquid waste in a centralized treatment system.

22. Odors, noise, and dust.

Will the project generate odors, noise or dust during construction or during operation?

☒ Yes ☐ No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Dust and noise generated during construction will be typical of a building project. Construction is localized to the existing wastewater treatment facilities and along existing highway corridors. Generators located at lift stations will be provided with noise attenuating enclosures, and it is anticipated that odor control will be provided at each lift station in accordance with St. Cloud regionalization requirements. There is no anticipated increase in noise, odors, or dust as a result of improvements. Decommissioning of Birch pond will reduce adverse odors, particularly during spring turn over, associated with pond operation. Birch pond will operate as emergency equalization and therefore will be dry most of the year, again reducing odors associated with pond operation.

23. Nearby resources.

Are any of the following resources on or in proximity to the site? Projects should search the State Historic Preservation Office's (SHPO) National Register of Historic Places database by calling 651-259-3453.

***Note:** Project proposers must contact the SHPO at DataRequestSHPO@state.mn.us or 651-259-3453 to request a database review to obtain information on any known historical or archaeological sites in the project area. Include a copy of correspondence with SHPO with the submittal of this EIW form.

- | | |
|---|---|
| d. Archaeological, historical, or architectural resources? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| e. Prime or unique farmlands or land within an agricultural preserve? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| f. Designated parks, recreation areas, or trails? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| g. Scenic views and vistas? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| h. Other unique resources? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

Will be updated when response is received.

24. Visual impacts.

Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?

☐ Yes ☒ No

If yes, explain.

N/A

25. Compatibility with plans and land use regulations.

Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?

☒ Yes ☐ No

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

The existing wastewater treatment ponds pre-date the most recent comprehensive growth plan update. The City is currently preparing an updated comprehensive growth plan. The growth plan for the community incorporate the existing system. It is not anticipated to have any conflicts with a regionalization alternative as the forcemain is largely a subsurface utility utilizing existing utility right-of-ways.

26. Impact on infrastructure and public services.

Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?

☒ Yes ☐ No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

Regionalization will require the installation of forcemain between the cities of St. Cloud and Foley. The preliminary forcemain route utilizes the existing Highway 23 corridor. Utilities are available along this corridor for operation of system lift stations. Lift station will require an access drive for periodic maintenance.

There are no anticipated large roadway, electrical, natural gas, or communication improvement anticipated as a result of the City's preferred alternative.

27. Cumulative impacts.

Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

No significant negative impacts are anticipated to this project.

Regionalization with St. Cloud provides the potential for a greater degree of treatment than would otherwise be available for wastewater from the City of Foley. St. Cloud operates a water resource recovery facility providing nutrient recovery and receives numerous regulatory and industry awards for the operations.

28. Other potential environmental impacts.

If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No additional impacts are foreseeable which have not already been discussed.

29. Summary of issues.

List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

Additional geotechnical investigations will be required to determine final suitability of the forcemain route.

Depending on the location of the forcemain route, additional wetland delineation may be required for protection or mitigation of construction activities.

A hazardous material survey will be conducted at the existing wastewater facilities prior to demolition to identify potential hazardous or toxic waste which may require special disposal.

Additional Comments for: 4. Description:

- a. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

Regionalization with the City of Saint Cloud would include constructing a new lift station and forcemain which would pump wastewater from Foley to the Saint Cloud collection system and ultimately the wastewater treatment facility for treatment. In this alternative, the Broadway and Birch Pond lift station pumps would be replaced to pump to a new lift station near Golf Pond. The new lift station would pump directly into a forcemain approximately 7.5 miles to a second lift station near Highway 23 between St. Cloud and Foley. The second lift station would then pump the remaining 4.0 miles to a gravity manhole located at Energy Drive and 35th Ave NE in the northeast corner of St. Cloud's collection system. The forcemain would mainly be located in the right-of-way associated with Hwy 23.

Each new lift station would be a submersible lift station with a set of dry and wet weather pumps. This is in response to the wide range between dry weather and peak wet weather flow rates and the high head requirements resulting from a long forcemain. A valve vault and meter vault in addition to the wetwell would connect into a 12-inch forcemain. The forcemain route requires seven air release and 10 cleanout manholes. An odor control system would be required by St. Cloud and likely dose into each of the new lift stations. A service connection fee and monthly usage fee would also be assessed to Foley by St. Cloud as part of the project. The City of Foley would be responsible for the operation and maintenance of the lift stations and forcemain. Regionalization will result in decommissioning of Birch pond and removal of solids from Golf pond with the possibility of use as an equalization basin. Decommissioning of Birch Pond includes sludge removal, demolition of the pond structure. Other improvements include rehabilitation of the existing lift stations and pumps and land acquisition for new infrastructure and lift station site. Regionalization would also better accommodate future regulations which may reduce effluent concentrations of existing parameters or introduce new parameter effluent limits.

Improvements to Existing facilities:

Broadway Lift Station

- Replace existing wastewater pumps
- Replace flow meter
- If required -
 - Provide new motor starters
 - Provide new main service breaker
 - Provide new transfer switch

Birch Lift Station

- Replace existing wastewater pumps
- Replace flow meter
- If required -
 - Provide new motor starters
 - Provide new main service breaker
 - Provide new transfer switch

Birch Pond System

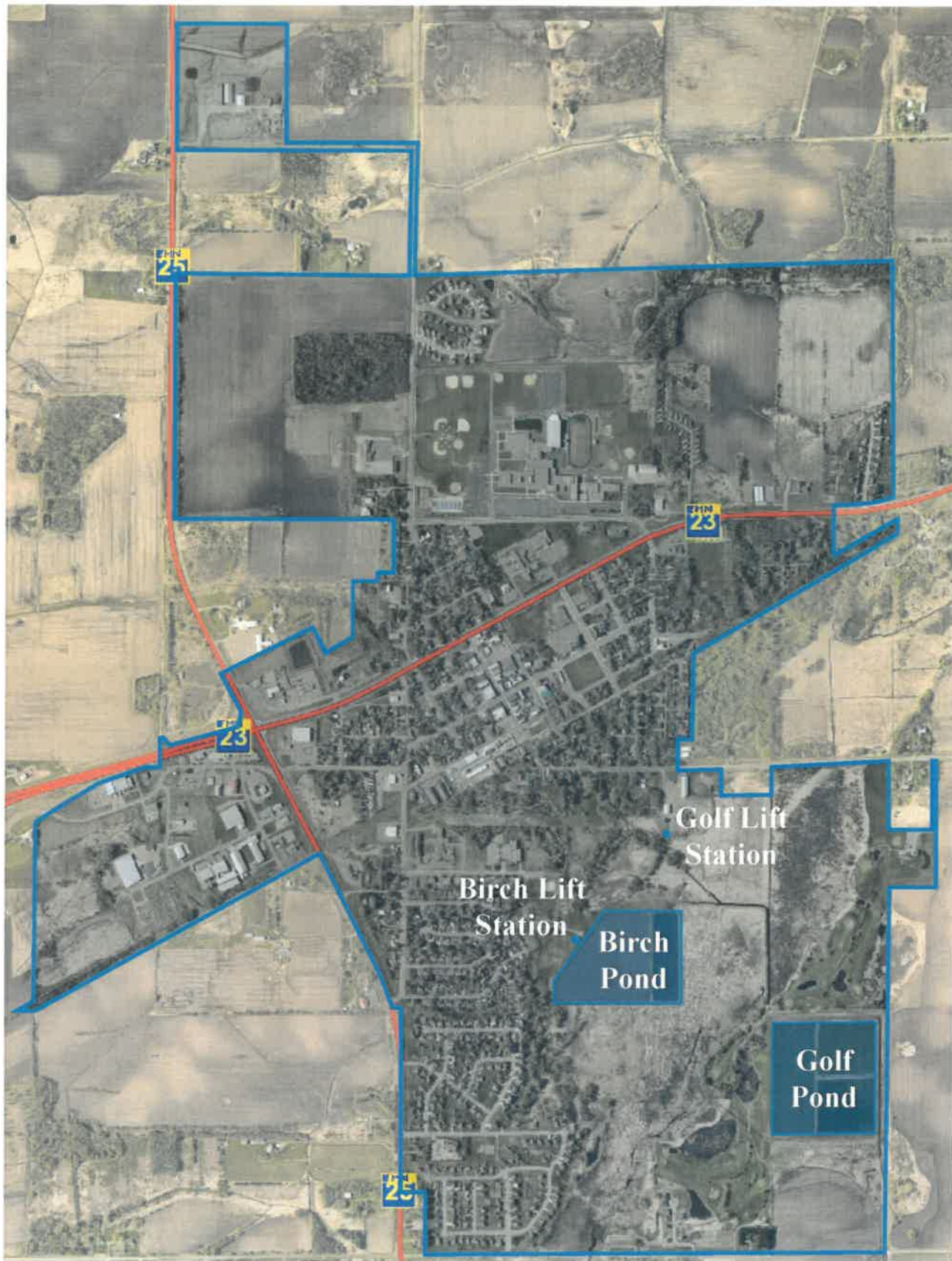
- Dredge, dewater, and dispose of sludge
- Remove flow control structures
- Remove clay liner
- Regrade site and restore to turf

Golf Pond System

- Modify/rehabilitate influent and discharge structures
- Convert stabilization pond to equalization pond
- Dredge, dewater, and dispose of sludge

Regionalization Forcemain System

- Two new quadplex submersible type lift stations
 - Pump controls, PLC, communications
 - Backup generator
 - Odor control system
 - Valve vault
- 12-inch HPDE forcemain from Foley to Energy Drive in St. Cloud
- Seven air release structures
- Ten clean-out structures



CITY FACILITIES AND SERVICE AREA

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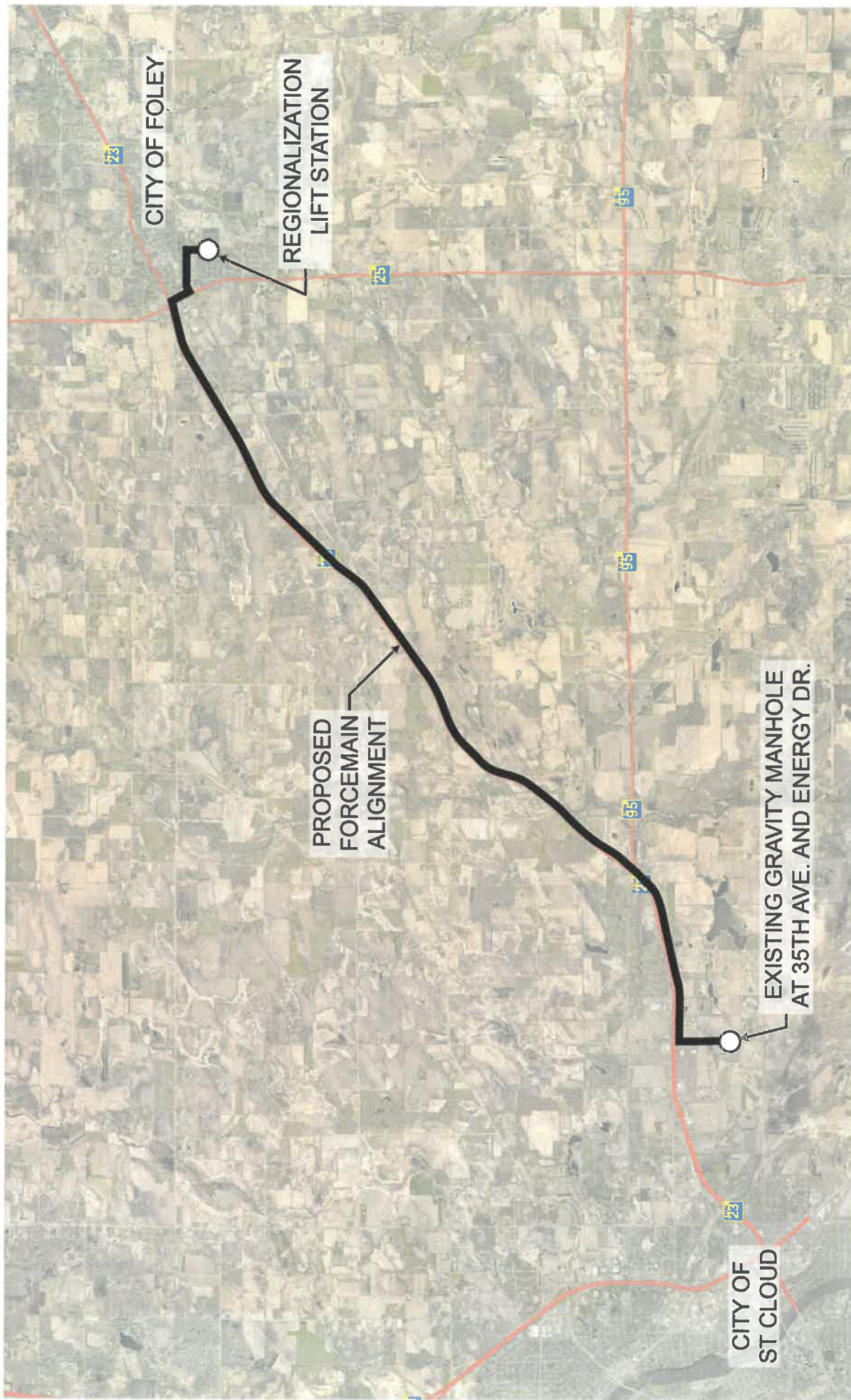


FOLEY, MINNESOTA

FILE NO.
CITY PROJECT NO.
ISSUED DATE
5/14/2018
Shurtliff, Hershenson Inc. © 2018

SHEET TITLE
FOLEY, MN WWTF
CITY FACILITIES AND
SERVICE AREA

Figure
1



1 PRELIMINARY REGIONALIZATION FORCEMAIN ALIGNMENT



SHEET TITLE

**FOLEY, MN WWTF
REGIONALIZATION
ALTERNATIVE**

Figure
12

FILE NO.
CITY PROJECT NO.
ISSUED DATE

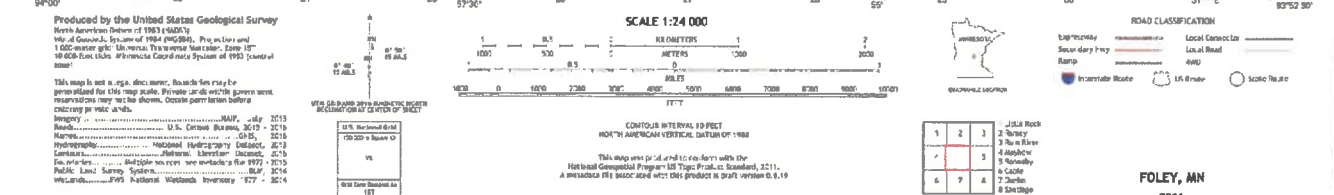
12/19/2018

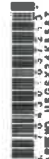
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FOLEY, MINNESOTA



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FAX: 612.355.2005
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NHIS Information Request

Submitted to:

Lisa Joyal

Endangered Species Review Coordinator Division of
Ecological and Water Resources Minnesota Department of
Natural Resources

500 Lafayette Road, Box 25

St. Paul, Minnesota 55155

Submitted: 4/11/2019

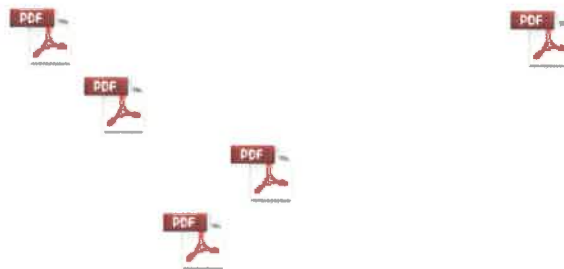
Response: Pending

From: [Eric Miller](#)
To: review.NHIS@state.mn.us
Subject: NHIS Request - City of Foley
Date: 04/11/2019 11:48 AM
Attachments: [NHIS Data Request Form Signed.pdf](#)
[Attachment 4 - Cable Quadrangle 20160606 TM.pdf](#)
[Attachment 3 - Foley Quadrangle 20160620 TM.pdf](#)
[Attachment 2 - Figure 12 Preliminary Regionalization Forcemain Alignment.pdf](#)
[Attachment 1 - Figure 1 City of Foley Facilities and Service Area.pdf](#)

Please see the attached NHIS review request prepared as part of the EIW for the Foley Wastewater Treatment Facility Plan.

If you have any additional questions or require supplemental information please contact me by email or cell at 651.600.7019.

Thanks.



Eric J. Miller, EI

Engineer Intern 13648 - North Dakota State Board of Registration for Professional Engineers and Land Surveyors
Project Engineer



Short Elliott Hendrickson Inc.

3535 Vadnais Center Drive, St. Paul, MN 55110-5196

651.765.2913 **direct**

651.600.7019 **cell**

sehinc.com

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2012	For Agency Use Only:			#Sec _____	Contact Rqsted? _____
	Received _____	Due _____	Inv _____	#EOs _____	Survey Rqsted? _____
	Search Radius _____ mi. L / I / D EM		Map'd _____	#Com _____	
	NoR / NoF / NoE / Std / Sub	Let _____	Log out _____	Related ERDB# _____	

NATURAL HERITAGE INFORMATION SYSTEM (NHIS) DATA REQUEST FORM

Please read the instructions on page 3 before filling out the form. Thank you!

WHO IS REQUESTING THE INFORMATION?

Mr. ☐ Ms. ☒ **Name and Title** Jessica Hedin, PE - Project Manger

Agency/Company Short Elliot Hendrickson, Inc.

Mailing Address 1200 25th Avenue South PO Box 1717 St. Cloud, MN 55302

(Street) (City) (State) (Zip Code)

Phone 320.229.4369 **e-mail** jhedin@sehinc.com

Responses will be sent via email. ☐
If you prefer US Mail check here: ☐

THIS INFORMATION IS BEING REQUESTED FOR A:

- ☐ Federal EA ☒ State EAW ☐ PUC Site or Route Application ☐ Watershed Plan ☐ BER
☐ Federal EIS ☐ State EIS ☐ Local Government Permit ☐ Research Project
☐ NEPA Checklist ☒ Other (describe) The response letter, only, will be included as an attachment to the facility plan.
- ☐ Check here if this project is funded through any of the following grant programs: Lessard-Sams Outdoor Heritage Council (L-SOHC), Conservation Partners Legacy (CPL), or Legislative-Citizen Commission on Minnesota Resources (LCCMR).

INFORMATION WE NEED FROM YOU:

- 1) Enclose a map of the project boundary/area of interest (topographic maps or aerial photos are preferred).
- 2) Please provide a GIS shapefile* (NAD 83, UTM Zone 15N) of the project boundary/area of interest.
- 3) List the following locational information* (attach additional sheets if necessary):

For Agency Use: Region / MACBS Status	County	Township #	Range #	Section(s) (please list all sections)	For Agency Use: TRS Confirmed <input type="checkbox"/>
	Benton	37 N	29 W	26, 27, 33, 34, 35, 36	
	Benton	36 N	29 W	4, 5, 6, 7, 8	
	Benton	36 N	30 W	12, 31, 14, 22, 23, 27, 28, 29	

- 4) Please provide the following information (attach additional sheets if necessary):

Project Name: Wastewater Treatment Facility Plan

Project Proposer: City of Foley

Description of Project (including types of disturbance anticipated from the project):

The City of Foley's preferred alternative for their wastewater treatment facility is the decommission of two pond cells located in T 37 N R 29 W S 35, dredging and conversion of three pond cells to equalization located in T 37 N R 29 W S 36, and installation of lift stations and forcemains along the State Highway 23 corridor, connecting to St. Cloud's collection system at Energy drive located in T 36 N R 30 W S 27.

Disturbances at the decommissioned ponds include removal of sludge, liner, and removal of embankments.

Disturbances at the converted ponds include removal of sludge and influent control structure. Disturbances along the forcemain corridor include air relief structures, clean-out structures, an anticipated two submersible type lift stations (wetwell, valve vault, sampler structure, meter vault, control panel, backup generator, and odor control system). It is anticipated that the forcemain installation will be horizontal, directionally drilled where possible with periodic drilling/recieving pits and open excavation for structures. Generally, construction activities will result in short term noise, traffic, and potential dust generation in and around construction areas.

Describe the existing land use of the project site. What types of land cover / habitat will be impacted by the proposed project?

Wastewater ponds are located along the east side of Foley. Force mains will be installed in right-of-way for municipal, county, and state roadways where possible. The Highway 23 corridor is mostly bordered by agricultural land, however urban mix of housing and commercial is present through Foley, and approaching St. Cloud.

List any waterbodies (e.g., rivers, intermittent streams, lakes, wetlands) that may be affected by the proposed project, and discuss how they may be impacted (e.g., dewatering, discharge, riverbed disturbance).

The Highway 23 corridor does not border permanent named lakes or water bodies. The Highway 23 corridor does cross several named and unnamed permanent and intermittent streams including Mayhew Creek, Elk River, unnamed ditch near 85th Ave, and an unnamed ditch near Highway 25. Several shallow marshes, wooded swamps, meadows, and seasonally flooded basins are adjacent to Highway 23, however it is anticipated the force main route will not extend far enough from Highway 23 to impact these wetlands.

Does the project have the potential to affect any groundwater resources (e.g., groundwater appropriation, change in recharge, or contamination)?

The force main system includes two wastewater lift stations. These structures are underground wastewater holding tanks, and will be located for sufficient well head protection.

To your knowledge, has the project undergone a previous Natural Heritage review? If so, please list the correspondence #: ERDB # _____. How does this request differ from the previous request (e.g., change in scope, change in boundary, project being revived, project expansion, different phase)?

To my knowledge this project has not undergone a previous Natural Heritage review.

To your knowledge, have any native plant community or rare species surveys been conducted within the site? If so, please list: To my knowledge this project has not undergone a previous native plant community or rare species survey.

List any DNR Permits or Licenses that you will be applying for or have already applied for as part of this project:

General DNR wetlands permit. DNR permission to cross for the above identified permanent and intermittent streams/rivers (total of 4).

INFORMATION WE PROVIDE TO YOU:

1) The response will include a Natural Heritage letter. If applicable, the letter will discuss potential effects to rare features.

- ☐ Check here if you are interested in a list of rare features in the vicinity of the area of interest but you do not need a review of potential effects to rare features. Please list the reason a review is not needed:

2) Depending on the results of the query or review, the response may include an Index Report of known aggregation sites and known occurrences of federally and state-listed plants and animals* within an approximate one-mile radius of the project boundary/area of interest. The Index Report and Natural Heritage letter can be included in any public environmental review document.

3) A Detailed Report that contains more information on each occurrence may also be requested. Please note that the Detailed Report may contain specific location information that is protected under *Minnesota Statutes*, section 84.0872, subd. 2, and, as such, the Detailed Report may not be included in any public document (e.g., an EAW).

- ☒ Check here if you would like to request a Detailed Report. Please note that if the results of the review are 'No Effects' or a standard comment, a Detailed Report may not be available.

FEES / TURNAROUND TIME

There is a fee* for this service. Requests generally take 3-4 weeks from date of receipt to process, and are processed in the order received.

I have read the entire form and instructions, and the information supplied above is complete and accurate. I understand that material supplied to me from the Natural Heritage Information System is copyrighted and that I am not permitted to reproduce or publish any of this copyrighted material without prior written permission from the DNR. Further, if permission to publish is given, I understand that I must credit the Minnesota Division of Ecological and Water Resources, Minnesota Department of Natural Resources, as the source of the material.

Signature
(required)

Jessica Hedlin

Note: Digital signatures representing the name of a person shall be sufficient to show that such person has signed this document.

Mail or email completed form to:

Lisa Joyal, Endangered Species Review Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155
Review.NHIS@state.mn.us

Form is available at

http://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf

Revised March 2, 2012

Instructions for the Natural Heritage Information System (NHIS) Data Request Form

The Division of Ecological and Water Resources maintains the Natural Heritage Information System (NHIS), a collection of databases that provides information on Minnesota's rare plants and animals, native plant communities, and other rare features. The NHIS is continually updated as new information becomes available, and the Minnesota County Biological Survey (MCBS) is a major source of this information.

- Use this form to request information on rare features within an approximate one-mile radius of an area of interest. You may reproduce this form for your own use or to distribute. An electronic copy of the form is available at the DNR's web site at http://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf
- If you are interested in obtaining the Rare Features Database electronically as a GIS shapefile, do not fill out this form. Please see http://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf for more information on this option.

WHO IS REQUESTING THE INFORMATION?

- The person whose name is entered on the form under the "Who is Requesting the Information" section must sign the form as an acknowledgment of the State of Minnesota's copyright on all generated reports. All correspondence and invoices will be sent to this person. Please do not ask us to send this information to a different party.
- Please include a complete mailing address. Responses will be sent via email unless you specify differently.

INFORMATION WE NEED FROM YOU:

- Include a legible map (topographic maps or aerial photographs are preferred) clearly showing:
 - 1) location and boundaries of the project,
 - 2) associated infrastructure, and
 - 3) any waterbodies that may be affected by the proposed project.
- If the project boundary is large or complex, please provide a **GIS shapefile** (NAD 83, UTM Zone 15) of the project boundary/area of interest. Do not include any buffers. An additional "digitizing fee" may be charged for projects that require a substantial amount of time to digitize.
- Provide a complete list of sections that the proposed project or area of interest falls within. Do not include any buffer area. Please double-check this information. Incorrect sections can delay the processing of your request, and may result in an invalid review.
- Please provide a detailed **project description**, attaching separate pages to the form if necessary. Identify the type of development (e.g., housing, commercial, utility, ethanol facility, wind farm) being proposed, the size and # of units (if applicable), construction methods, and any **associated infrastructure** such as access roads, utility connections, and water supply and/or discharge pipelines.
- We cannot begin processing data requests until we receive all parts of the request, including a map and a completed, signed form.

INFORMATION WE PROVIDE TO YOU:

- The Natural Heritage review and database reports are valid for environmental review purposes for one year, and they are only valid for the project location and description provided on the form. Please contact Lisa Joyal at lisa.joyal@state.mn.us if project details change or if a data update is needed.
- Please note that the Natural Heritage review and database reports do not address/contain locations of the gray wolf (*Canis lupus*), state-listed as special concern, or Canada lynx (*Lynx canadensis*), federally-listed as threatened, as these species are not currently tracked in the Natural Heritage Information System. See page 4.

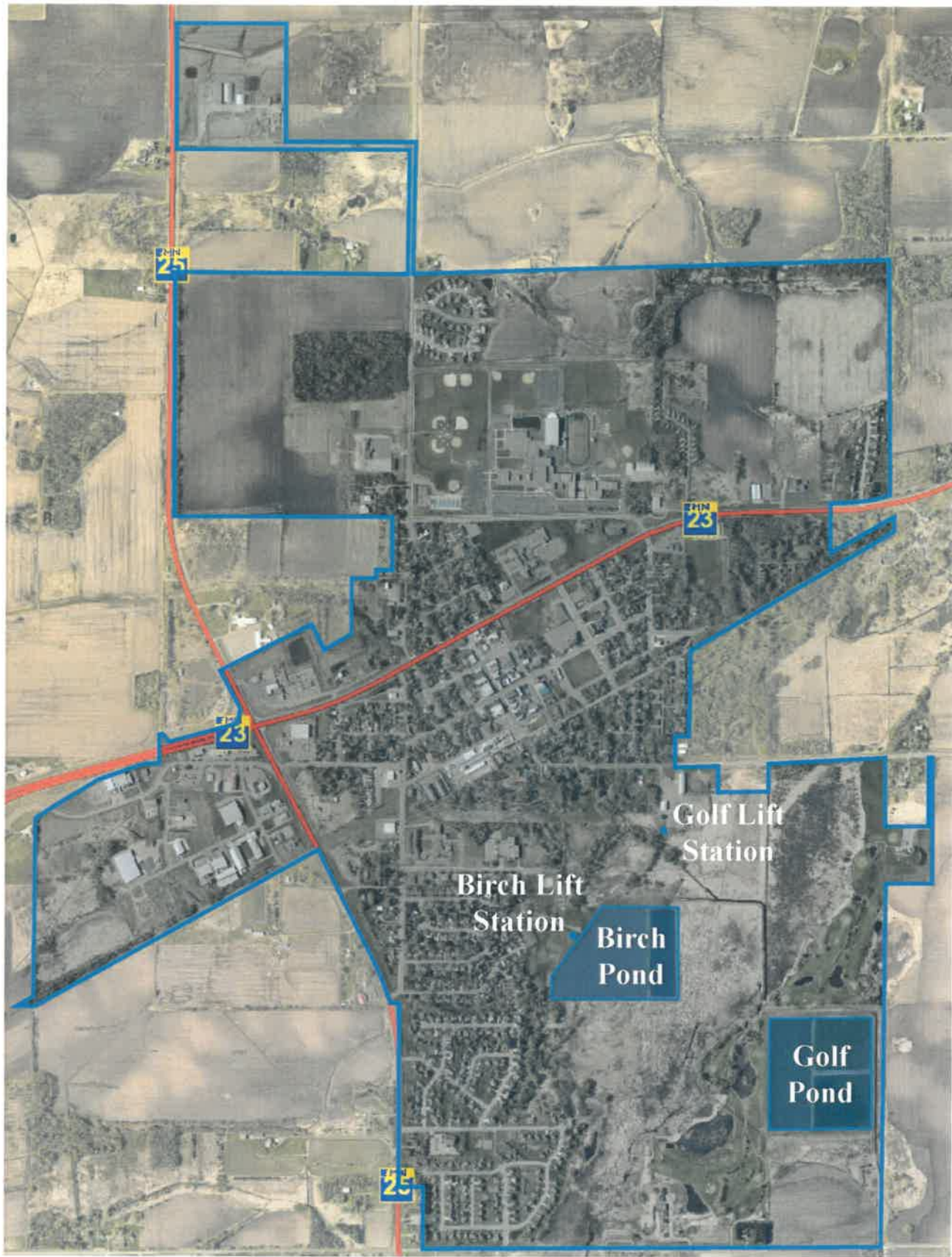
FEES / TURNAROUND TIME:

- There is a fee for this service. All fees are subject to change. The current fee schedule is available at http://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf. The minimum charge is \$90.00, and increases based on the time it takes us to process the request (dependent upon project size and the results of the query). Please do not include payment with your request; an invoice will be sent to you.
- There is generally a **3-4 week turn-around time** to process requests.

PLEASE SEE NEXT PAGE FOR ADDITIONAL SOURCES OF INFORMATION

ADDITIONAL SOURCES OF INFORMATION:

- The DNR Rare Species Guide (<http://www.dnr.state.mn.us/rsg/index.html>) is the state's authoritative reference for Minnesota's endangered, threatened, and special concern species. It is a dynamic, interactive source that can be queried by county, ECS subsection, watershed, or habitat.
- Information on the gray wolf (*Canis lupus*):
DNR website: <http://www.dnr.state.mn.us/mammals/graywolf.html>
USFWS website: <http://www.fws.gov/midwest/wolf/>
- Information on the Canada lynx (*Lynx Canadensis*):
DNR website: <http://www.dnr.state.mn.us/mammals/canadalynx.html>
USFWS website: <http://www.fws.gov/midwest/endangered/mammals/lynx/index.html>
- Minnesota's Comprehensive Wildlife Conservation Strategy (<http://www.dnr.state.mn.us/cwcs/index.html>) is an action plan focused on managing Minnesota's native animals whose populations are rare, declining, or vulnerable to decline. It identifies Species in Greatest Conservation Need and the Key Habitats that support them.
- The DNR Data Deli (<http://deli.dnr.state.mn.us/>) allows users to download GIS shapefiles of MCBS Sites of Biodiversity Significance, MCBS Native Plant Communities, MCBS Railroad Rights-of-Way Prairies, and Scientific and Natural Area Boundaries.
- Information on MCBS Sites of Biodiversity Significance can be found at http://www.dnr.state.mn.us/eco/mcbs/biodiversity_guidelines.html.
- Information on MCBS Native Plant Communities can be found at <http://www.dnr.state.mn.us/npc/index.html>.
- Questions? Please contact Lisa Joyal at 651-259-5109 or lisa.joyal@state.mn.us.



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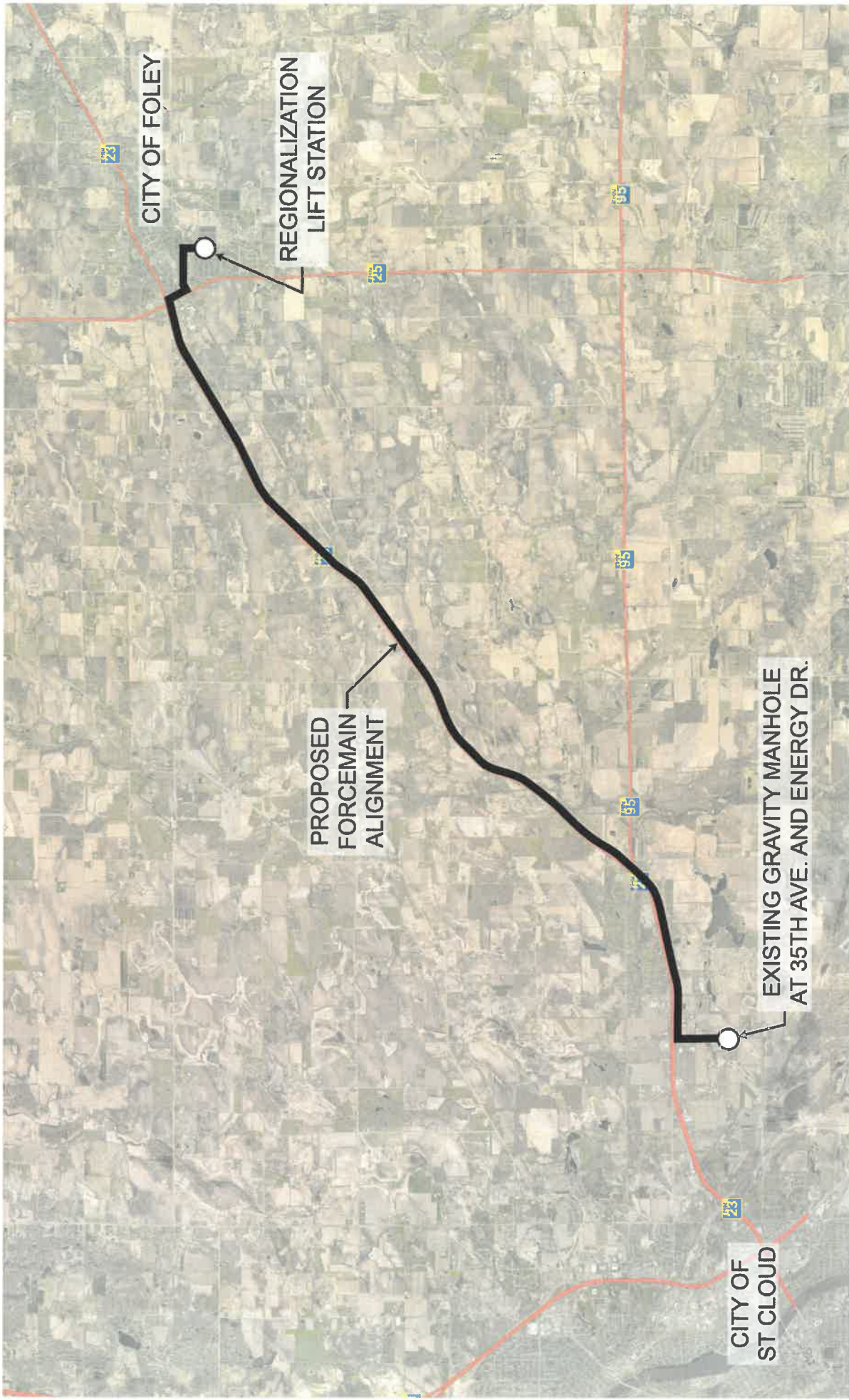


FOLEY, MINNESOTA

FILE NO.
CITY PROJECT NO.
ISSUED DATE
5/14/2018
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SHEET TITLE
FOLEY, MN WWTF
CITY FACILITIES AND
SERVICE AREA

Figure
1



1 PRELIMINARY REGIONALIZATION FORCEMAIN ALIGNMENT



Figure 12

SHEET TITLE
**FOLEY, MN WWTF
 REGIONALIZATION
 ALTERNATIVE**

FILE NO.
 CITY PROJECT NO.
 ISSUED DATE
 12/19/2018

FOLEY, MINNESOTA

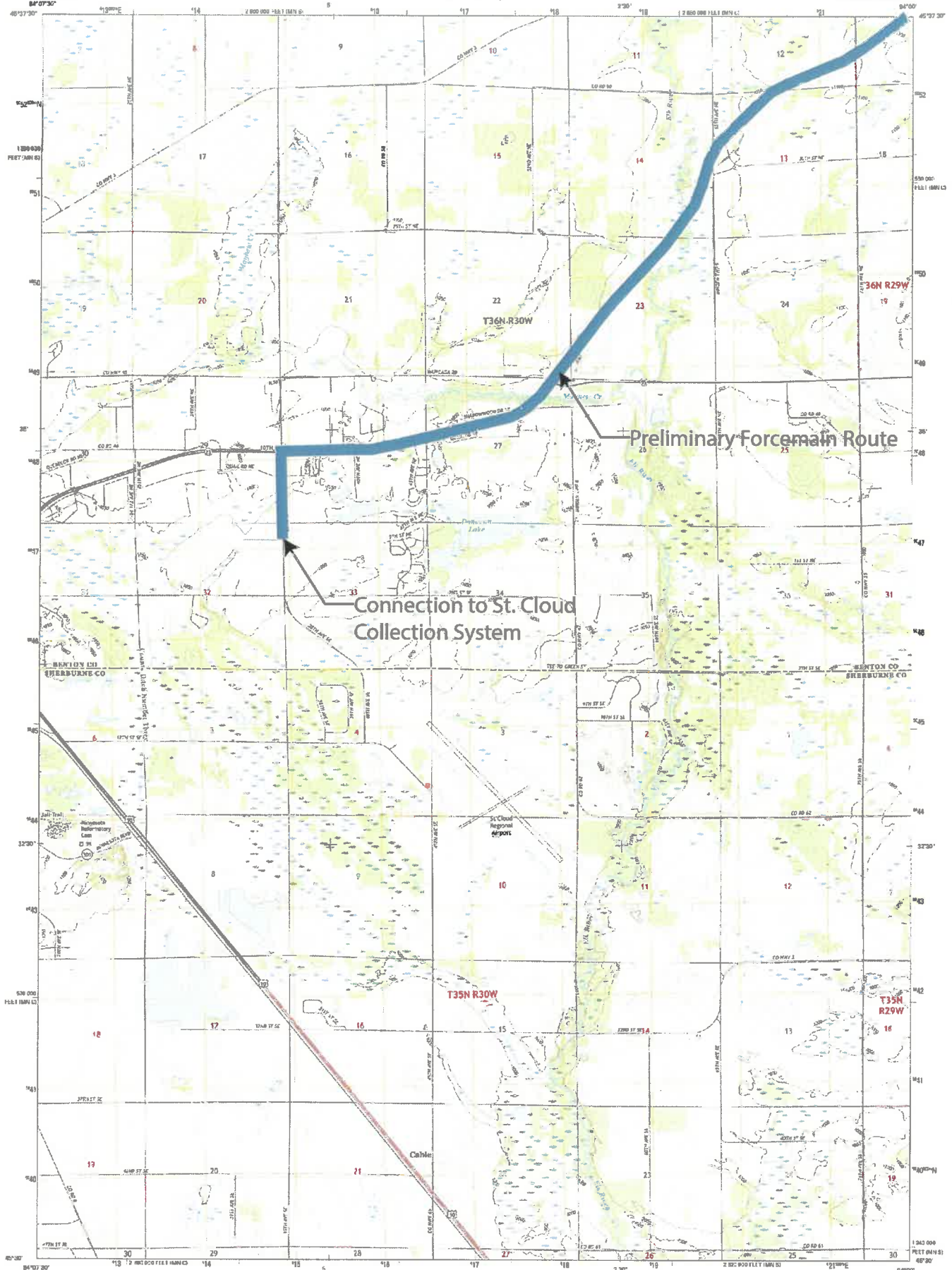




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FOLEY, MN



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
Datum used for this map series. If you have a 1983
IC 600-foot (1:50,000) National Geographic Society of 1983 control
and base map.

This map is not a legal document. Boundaries may be
unreliable for this map scale. If you have a 1983 government
surveyors may not be shown. Check permission before
or using similar lands.

Map data: USGS, July 2013
Roads: USGS, 2010
Hydrography: USGS, 2010
Contours: USGS, 2010
Boundaries: USGS, 2010
Public Land Survey: USGS, 2010
Municipalities: USGS, 2010

U.S. National Map
Scale 1:24,000
Section 10

SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
NORTH ARROW VERTICAL AT DATUM OF 1983
This map was produced to conform with the
National Geographic Society's 7.5-minute map series.
A "National Map" is a product of the USGS.

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Road	US Route
Interstate	State Route

Legend:
1. Single Rock Lane
2. Keyhole
3. Policy
4. Solid Cloud
5. Dashed
6. Solid Area
7. Obsolete

CABLE, MN

SHPO Information Request

Submitted to:

Property Information/Database Searches
Minnesota Historical Society - MnHPO Government
Programs and Compliance
345 Kellogg Boulevard West
St. Paul, MN 55102
Submitted: 4/11/2019
Response: Pending

From: [Eric Miller](#)
To: datarequestshpo@state.mn.us
Subject: SHPO Request - City of Foley
Date: 04/11/2019 11:56 AM
Attachments: [Attachment 4 - Cable Quadrangle 20160606 TM.pdf](#)
[Attachment 3 - Foley Quadrangle 20160620 TM.pdf](#)
[Attachment 2 - Figure 12 Preliminary Regionalization Forcemain Alignment.pdf](#)
[Attachment 1 - Figure 1 City of Foley Facilities and Service Area.pdf](#)

Good Morning,

My name is Eric Miller and I am working with the City of Foley for their Wastewater Treatment Facility Plan.

I am contacting you as part of the EIW for the MPCA to request a database review for any known historical or archeological sites in the project area.

The City of Foley's preferred alternative for their wastewater treatment facility is the decommission of two pond cells located in T 37 N R 29 W S 35, dredging and conversion of three pond cells to equalization located in T 37 N R 29 W S 36, and installation of lift stations and forcemains along the State Highway 23 corridor, connecting to St. Cloud's collection system at Energy drive located in T 36 N R 30 W S 27.

Construction activities will occur in the following Township and Ranges:

County	Township	Range	Section(s)
Benton	37 N	29 W	26, 27, 33, 34, 35, 36
Benton	36 N	29 W	4, 5, 6, 7, 8
Benton	36 N	30 W	12, 31, 14, 22, 23, 27, 28, 29

Disturbances at the decommissioned ponds include removal of sludge, liner, and removal of embankments. Disturbances at the converted ponds include removal of sludge and influent control structure. Disturbances along the forcemain corridor include air relief structures, clean-out structures, an anticipated two submersible type lift stations (wetwell, valve vault, sampler structure, meter vault, control panel, backup generator, and odor control system). It is anticipated that the forcemain installation will be horizontal, directionally drilled where possible with periodic drilling/receiving pits and open excavation for structures. Generally, construction activities will result in short term noise, traffic, and potential dust generation in and around construction areas.

Your report will be included as an appendix to the final Facility Plan.

Thank you for taking the time to review our project. If you have any questions, or require additional information please contact me at 651.600.7019 or by email at emiller@sehinc.com

Attachments:

Attachment 1 - Figure 1 City of Foley Facilities and Service Area.pdf

Attachment 2 - Figure 12 Preliminary Regionalization Forcemain Alignment.pdf

Attachment 3 - Foley Quadrangle 20160620 TM.pdf

Attachment 4 - Cable Quadrangle 20160606 TM.pdf



Eric J. Miller, EI

Engineer Intern 13648 - North Dakota State Board of Registration for Professional Engineers and Land Surveyors
Project Engineer



Short Elliott Hendrickson Inc.

3535 Vadnais Center Drive, St. Paul, MN 55110-5196

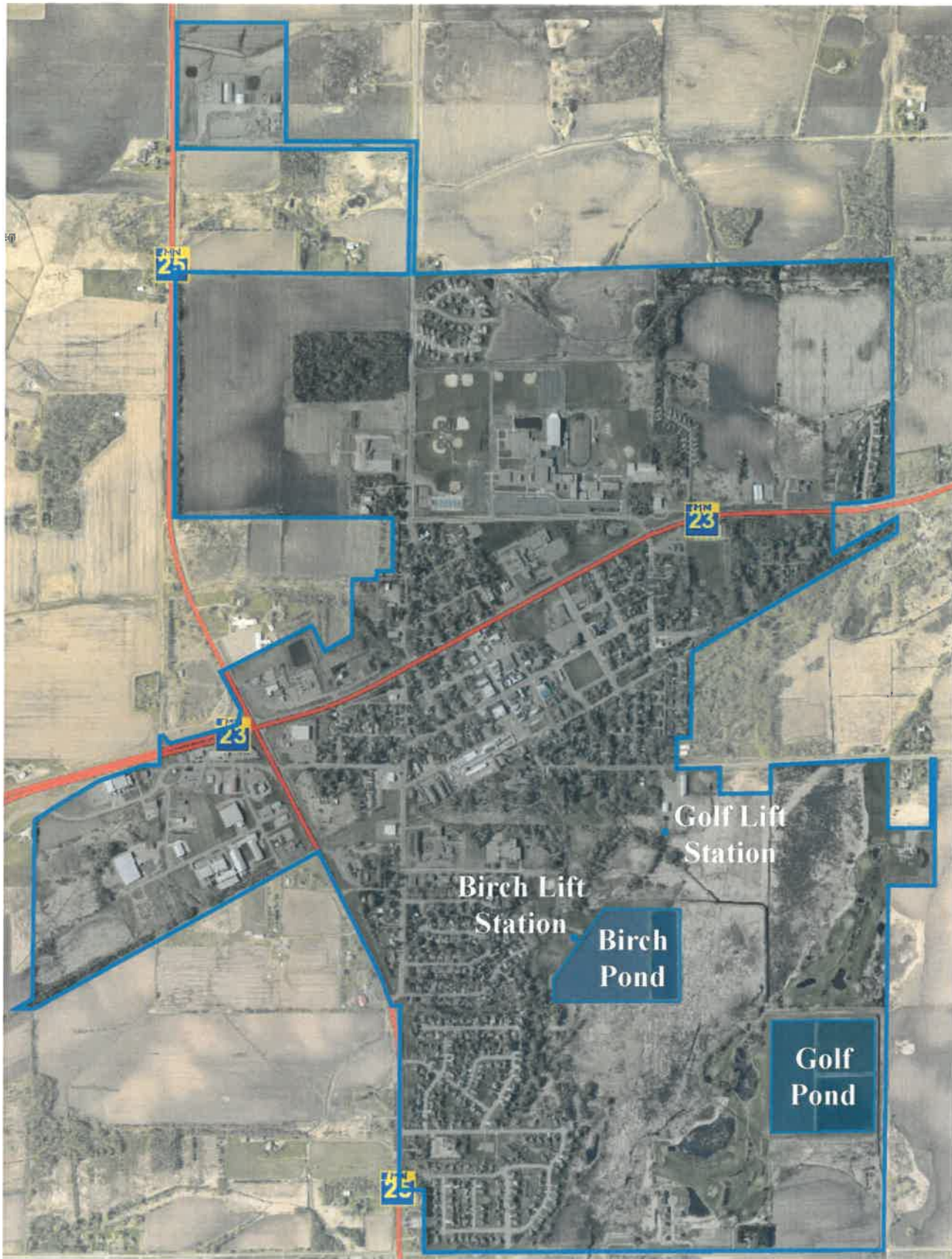
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www.sashrc.com

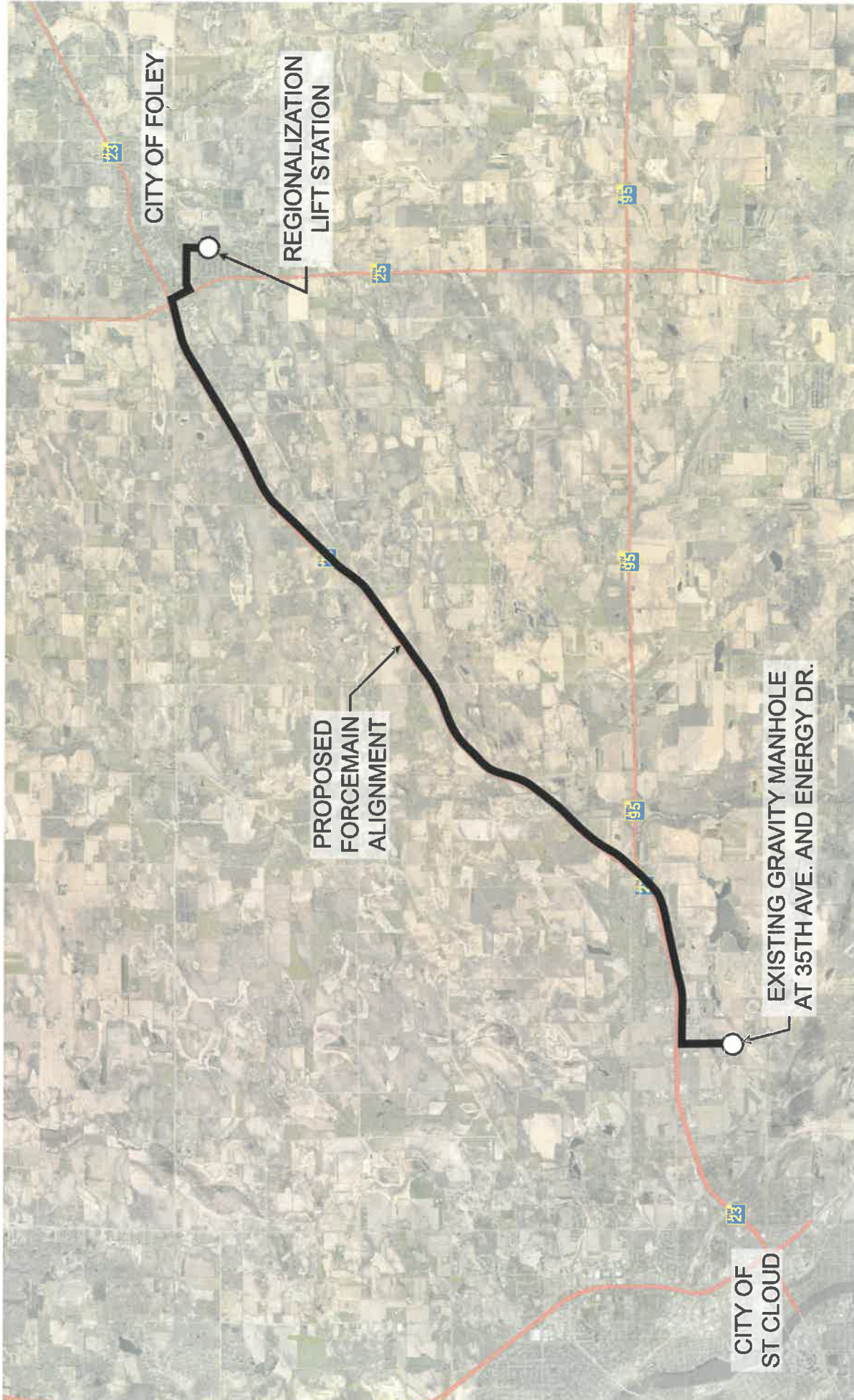


FOLEY, MINNESOTA

FILE NO.
CITY PROJECT NO.
ISSUED DATE
5/14/2018
Shurtliff Engineering, Inc. (SEH)

SHEET TITLE
FOLEY, MN WWTF
CITY FACILITIES AND
SERVICE AREA

Figure
1



1 PRELIMINARY REGIONALIZATION FORCEMAIN ALIGNMENT 12



Figure
12

SHEET TITLE
**FOLEY, MN WWTF
REGIONALIZATION
ALTERNATIVE**

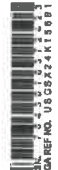
FILE NO.
CITY PROJECT NO.
ISSUED DATE
12/19/2018

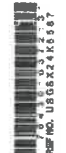
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FOLEY, MINNESOTA



3355 WYOMING CENTER DR
ST PAUL, MN 55110
PHONE: 651.442.2000
FAX: 651.442.2001
TOLL FREE: 800.325.2655
www.sehinc.com





Section 106 Letter

Submitted to:

Ms. Sarah J. Beimers

Manager

Minnesota Historical Society - MnHPO Government Programs and

Compliance 345 Kellogg Boulevard West

St. Paul, MN 55102

Submitted: Pending NHIS and SHPO Surveys

Response: Pending

Appendix B

NPDES/SDS Permit



Minnesota Pollution Control Agency

Brainerd Office | 7678 College Road | Suite 105 | Baxter, MN 56425 | 218-828-2492

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

March 1, 2012

The Honorable Gary Gruba
Mayor, City of Foley
P.O. Box 709
Foley, MN 56329-0709

RE: Final Reissued National Pollutant Discharge Elimination System/State Disposal System
Permit No. MN0023451
Foley WWTF
T37N, R29W, Section 35, Gilmanton Township, Benton County, Minnesota

Dear Mayor Gruba:

Enclosed is the final National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for your facility. This permit supersedes an earlier NPDES/SDS permit that was issued on December 13, 2006. All comments submitted in writing during the public notice comment period have been considered in the formulation of the terms and conditions of the permit.

It is the responsibility of the Permittee to maintain compliance with all of the terms and conditions of this permit. Please carefully review the entire permit. A "Submittals Checklist" that is specific for your facility is also enclosed for your use. You may find this checklist to be a convenient tool in tracking the due dates and status of submittals required by the final issued permit.

Special attention should be directed to the following:

Limits and Monitoring Requirements

Elk Lake Total Maximum Daily Load (TMDL) Study. It has been determined that the Foley Wastewater Treatment Facility (WWTF) contributes to the excess nutrient impairment in Elk Lake and is therefore required to have a Water Quality Based Effluent Limit (WQBEL). The recommended Total Phosphorus (TP) mass limit for station SD004 is 1,026 kilograms per year. This station has been added as a tracking station for the total phosphorus discharge from each of the stabilization pond systems. This mass limit is equivalent to the Waste Load Allocation (WLA) in the draft Elk Lake Excess nutrient TMDL study. Mass limits were developed using the best available science and are equivalent to WQBEL because they are designed such that Elk Lake will achieve water quality standards assuming other reductions outlined in the TMDL are completed. The Permittee should be aware that more restrictive TP limits may be necessary following the adoption of numeric river nutrient criteria during the next triennial rulemaking session.

Total Phosphorus Sampling. All phosphorus samples must be analyzed by a certified laboratory and the data submitted to the Minnesota Pollution Control Agency (MPCA). If your laboratory would like more information about becoming certified, please call the Environmental Laboratory Certification Unit at 651-201-5200. Samples must be collected in a clean bottle (preferably cleaned by a certified laboratory) that was not washed with phosphate detergent. Also, a sulfuric acid preservative must be added immediately after the sample is collected, and it must be stored at four degrees Celsius until analysis. If

a contract laboratory is used, the bottle and preservative would typically be provided by the laboratory analyzing the sample.

Total Sulfate Monitoring. The facility's discharge path goes to Rice Lake which has been designated as a wild rice lake; because Rice Lake has been designated as a wild rice lake, total sulfate monitoring once weekly during discharge is required. The Permittee can request an evaluation of the monitoring results after two years of sampling and the requirement may be withdrawn.

Additional Monitoring for Municipal Facilities. This monitoring is required by 40 CFR § 122.21(j) and has been added to the limits and monitoring section of the permit. The permit reissuance will require effluent monitoring two times per year, in April and September for Ammonia Nitrogen, Total Kjeldahl Nitrogen, Total Nitrite plus Nitrate and Total Dissolved Solids. The data will be recorded on a custom supplemental form provided by the MPCA and must be submitted with the Discharge Monitoring Report (DMR) for the month when the sample was collected.

Chapter 1: Special Requirements

The Permittee is required to submit plans and specifications to address accurate flow measurement and representative sampling to each of the pond systems, these plans are due to the MPCA within one year of permit issuance. The Permittee is also required to submit a plan to the MPCA for approval which will address compliance with the total phosphorus mass limit. The Permittee must complete construction of the new flow measurement and sampling equipment within two years of permit issuance. The Permittee must implement the approved plan and attain compliance with the final effluent limit for total phosphorus within two years of the permit issuance. The Permittee must submit a notification to the MPCA within 30 days of completion of construction of the flow equipment and representative sampling equipment.

Chapter 2: Surface Discharge Stations

Station SD004 is a compliance monitoring station; this station will be used to track the calendar year to date total phosphorus limit from Stations SD001 and SD002.

Chapter 3: Surface Water Stations

Sampling for the surface water stations SW001 and SW002 shall start on the 5th day of discharge from the stabilization ponds. The sampling will be done one time per week during discharge. SW001 samples should be collected from the 45th Street Northeast crossing of Stoney Brook. SW002 samples should be collected from the crossing of Rice Creek, Rice Lake's outlet stream, at 105th Avenue Southeast on Sherburne CSAH 6. Sampling can be done at any time of the day; the samples should be collected on the same day that the effluent is sampled for sulfate. Use U.S. Environmental Protection Agency Method 300.1 or a method approved by the latest version of Standard Methods of the Examination of Water and Wastewater with a reporting limit of not worse than 1.0 milligrams per Liter (mg/L). The preservation method is the same as used for Total Suspended Solids (cool to 4° C.), but at 28 days the holding time for sulfate is longer than that for Total Suspended Solids.

Chapter 5: Pretreatment

New state pretreatment rules, Minn. R. ch. 7049, are now effective and their requirements are incorporated into this chapter. Please review these permit requirements carefully.

Chapter 6: Total Facility Requirements

The Honorable Gary Gruba

Page 3

March 1, 2012

Regarding your planned construction project, separate written approval of plans and specifications, in addition to the final issued permit, must be obtained from the MPCA before construction can begin.

Questions about your permit should be directed to the appropriate staff contacts listed on the first page of your permit.

Sincerely,

Robin L. Novotny
Pollution Control Specialist Senior
Brainerd Office
Municipal Division

RLN:dlp

Enclosures

cc: James F. Moshier, Public Works Director, City of Foley
Sara Brunn, City Administrator, City of Foley
Joseph Dubel, Bonestroo Williamson Kotsmith, St. Cloud



STATE OF MINNESOTA

Minnesota Pollution Control Agency

Municipal Division

**National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MN0023451**

PERMITTEE:	City of Foley		
FACILITY NAME:	Foley WWTF		
RECEIVING WATER:	Stoney Brook (Class 7, 3C, 4A, 4B, 5, 6 water)		
TOWNSHIP:	Gilmanton	COUNTY:	Benton
ISSUANCE DATE:	March 1, 2012	EXPIRATION DATE:	February 28, 2017

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above and to discharge from this facility to the receiving water named above, in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with Minnesota and US statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7049, 7050, 7053, 7060, and the US Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on December 13, 2006. This permit expires at midnight on the expiration date identified above.

Signature: _____

Ronald R. Swenson
Supervisor, North Central Regional
and SSTS C&E Unit
Brainerd Office
Municipal Division

for The Minnesota Pollution Control Agency

Submit DMRs to:

Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Submit Other WQ Reports to:

Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Questions on this permit?

- For DMR and other permit reporting issues, contact:
Tamara Dahl, 507-476-4252.
- For specific permit requirements or permit compliance status, contact:
Herschel Blasing, 218-316-3860.
- General permit or NPDES program questions, contact:
MPCA, 651-282-6143 or 800-657-3938.

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Facility Description

The Foley Wastewater Treatment Facility (Facility) is located at NE 1/4 of SW 1/4 of NE 1/4 of Section 35, Township 37 North, Range 29 West, Gilmanton Township, Benton County, Minnesota. This is a Class D facility.

Major components of the Facility include:

- 1 Primary Stabilization Pond (Birch Pond System 17.2 acres)
- 1 Secondary Stabilization Pond (Birch Pond System 5.0 acres)
- 2 Primary Stabilization Ponds (Golf Pond System 8.26 acres each)
- 1 Secondary Stabilization Pond (Golf Pond System 12.51 acres)

The application indicates that the existing treatment system consists of two main lift stations (the Birch lift station and the Broadway lift station), 1,920 feet of eight-inch force main, 5,000 feet of ten-inch force main, an additional 8,900 feet of collection line and two stabilization pond systems: pond system #1 or the Birch Pond and pond system #2 or the Golf Pond.

The Birch Pond (pond #1) facility consists of a two-cell stabilization pond system which has a controlled discharge (SD001) to a marsh to Stoney Brook (Class 7, 3C, 4A, 4B, 5, 6 water). The facility is designed to treat an average influent flow of up to 161,000 gallons per day (gpd) with a five-day carbonaceous biochemical oxygen demand (CBOD₅) of 290 milligrams per Liter (mg/L). The primary and secondary cells have surface area of 17.2 and 5.0 acres respectively, both measured at the three-foot operating depth level. The pond system provides a total detention time of approximately 180 days at design flow.

The Golf Pond (pond #2) facility consists of a three-cell stabilization pond system which has a controlled discharge (SD002) to a ditch to Stoney Brook (Class 7, 3C, 4A, 4B, 5, 6 water). The facility is designed to treat an average influent flow of up to 210,300 gpd with a CBOD₅ of 207 mg/L. The two primary cells have surface area of 8.26 acres each and the secondary cell has a surface area of 12.51 acres, all measured at the four-foot depth level. The pond system provides a total detention time of 180 days at design flow.

The Facility will have a total phosphorus calendar year to date limit of 1,026 kilograms per year. This draft permit also requires Sulfate monitoring due to Rice Lake being a wild rice lake.

The Facility as a whole has a combined average influent flow capacity of up to 371,300 gpd based on the design detention time of 180 days. The combined pond systems have three alternative operation modes:

1. During normal operation, wastewater from the Birch lift station is pumped to pond system #1 (Birch Pond) and the wastewater from the Broadway lift station is pumped to pond system #2 (Golf Pond).
2. Wastewater from the Birch and Broadway lift stations is pumped to pond system #1 (Birch Pond).
3. Wastewater from the Birch and Broadway lift stations is pumped to pond system #2 (Golf Pond).

The Birch Pond facility is further described in plans and specifications on file with the Minnesota Pollution Control Agency (MPCA) and in an engineering report prepared by Harry Adams, P. E., St. Paul, Minnesota. The Golf Pond facility is further described in plans and specifications on file with the MPCA and in an engineering report prepared by Williamson-Kotsmith, Inc., St. Cloud, Minnesota.

In accordance with MPCA rules regarding nondegradation for all waters that are not Outstanding Resource Value Waters, nondegradation review is required for any new or expanded significant discharge (Minn. R. 7050.0185). A significant discharge is 1) a new discharge (not in existence before January 1, 1988) that is greater than 200,000 gallons per day to any water other than a Class 7 water or 2) an expanded discharge that expands by greater than 200,000 gallons per day that discharges to any water other than a Class 7 water or 3) a new or expanded discharge containing any toxic pollutant at a mass loading rate likely to increase the concentration of the toxicant in the receiving water by greater than one percent over the baseline quality. The flow rate used to determine significance is the design average wet weather flow. The January 1, 1988, design average wet weather flow for Station SD001 is 161,000 gpd and for Station SD002 is 210,300 gpd.

This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which an NPDES permit has been issued by the MPCA that contains effluent limits more stringent than those that would be established by parts 7053.0215 to 7053.0265, shall continue to meet the effluent limits established by the permit, unless the permittee establishes that less stringent effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

The location of the Facility is shown on the "Topographic Map of Permitted Facility" (page 5).

The location of designated monitoring stations is specified on the "Summary of Stations" (page 6).

MN0023451, City of Foley WWTF
T37N, R29W, Section 35
Gilmanton Township, Benton County, Minnesota



Foley WWTF
Summary of Stations

Surface Discharge Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
SD001	Effluent To Surface Water (Monitor only during discharge)	Birch Pond Discharge - Monthly	SW Quarter of the NW Quarter of Section 36, Township 37 North, Range 29 West
SD002	Effluent To Surface Water (Monitor only during discharge)	Golf Pond Discharge - Monthly	NE Quarter of the SW Quarter of Section 36, Township 37 North, Range 36 West
SD004	Limits Calculation	Compliance Tracking for SD001 & SD002	

Surface Water Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
W001	Stream/River/Ditch, Downstream (Monitor only during discharge)	45th Street NE	SW Quarter of Section 2, Township 36 North, Range 29 West
W002	Stream/River/Ditch, Downstream (Monitor only during discharge)	105th Ave SE (CSAH 6)	SE Quarter of Section 9, Township 35 North, Range 29 West

Waste Stream Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
WS001	Influent Waste	Birch Pond Influent	
WS002	Influent Waste	Golf Pond Influent	

Foley WWTF

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

SD 001: Birch Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	77	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	4
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
BOD, Carbonaceous 05 Day (20 Deg C)	123	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	4
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	May-Oct	Grab	2 x Week	8
Flow	0	MG	Calendar Month Total Intervention	Jan-Feb, Jul, Aug	Measurement	1 x Day	11
Flow	Monitor Only	mgd	Calendar Month Average	Mar-Jun, Sep-Dec	Measurement	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Mar-Jun, Sep-Dec	Measurement	1 x Day	10
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Oxygen, Dissolved	Monitor Only	mg/L	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
pH	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	2
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Phosphorus, Total (as P)	Monitor Only	kg/mo	Calendar Month Total	Jan-Dec	Grab	2 x Week	
Phosphorus, Total (as P)	Monitor Only	kg/yr	Calendar Year To Date Total	Jan-Dec	Calculation	2 x Week	5
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Solids, Total Suspended (TSS)	138	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	4
Solids, Total Suspended (TSS)	45	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Solids, Total Suspended (TSS)	200	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	4
Solids, Total Suspended (TSS)	65	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	9

SD 002: Golf Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	193	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	3
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8

Foley WWTF

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: *Limits Applicable in the Interim Period*

SD 002: Golf Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	308	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	3
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	May-Oct	Grab	2 x Week	8
Flow	0	MG	Calendar Month Total Intervention	Jan-Feb, Jul, Aug	Measurement	1 x Day	11
Flow	Monitor Only	mgd	Calendar Month Average	Mar-Jun, Sep-Dec	Measurement	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Mar-Jun, Sep-Dec	Measurement	1 x Day	10
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Oxygen, Dissolved	Monitor Only	mg/L	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
pH	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	2
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Phosphorus, Total (as P)	Monitor Only	kg/mo	Calendar Month Total	Jan-Dec	Grab	2 x Week	
Phosphorus, Total (as P)	Monitor Only	kg/yr	Calendar Year To Date Total	Jan-Dec	Calculation	2 x Week	5
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Solids, Total Suspended (TSS)	347	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	3
Solids, Total Suspended (TSS)	45	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Solids, Total Suspended (TSS)	501	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	3
Solids, Total Suspended (TSS)	65	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	

SW 001: 45th Street NE (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	

Foley WWTF

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: *Limits Applicable in the Interim Period*

SW 002: 105th Ave SE (CSAH 6) (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Sulfate, Total (as SO ₄)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	

WS 001: Birch Pond Influent

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH	Monitor Only	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Quarter	1
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Measurement	1 x Day	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7

WS 002: Golf Pond Influent

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH	Monitor Only	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Quarter	1
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Measurement	1 x Day	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7

Period: *Limits Applicable in the Final Period*

SD 001: Birch Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	77	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	4
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8

Foley WWTF

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

SD 001: Birch Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	123	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	4
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	May-Oct	Grab	2 x Week	8
Flow	0	MG	Calendar Month Total Intervention	Jan-Feb, Jul, Aug	Measurement	1 x Day	11
Flow	Monitor Only	mgd	Calendar Month Average	Mar-Jun, Sep-Dec	Measurement	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Mar-Jun, Sep-Dec	Measurement	1 x Day	10
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Oxygen, Dissolved	Monitor Only	mg/L	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
pH	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	2
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Phosphorus, Total (as P)	Monitor Only	kg/mo	Calendar Month Total	Jan-Dec	Grab	2 x Week	
Phosphorus, Total (as P)	Monitor Only	kg/yr	Calendar Year To Date Total	Jan-Dec	Calculation	2 x Week	5
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Solids, Total Suspended (TSS)	138	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	4
Solids, Total Suspended (TSS)	45	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Solids, Total Suspended (TSS)	200	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	4
Solids, Total Suspended (TSS)	65	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	9

SD 002: Golf Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	193	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	3
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
BOD, Carbonaceous 05 Day (20 Deg C)	308	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	3
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8

Foley WWTF

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: *Limits Applicable in the Final Period*

SD 002: Golf Pond Discharge - Monthly (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	May-Oct	Grab	2 x Week	8
Flow	0	MG	Calendar Month Total Intervention	Jan-Feb, Jul, Aug	Measurement	1 x Day	11
Flow	Monitor Only	mgd	Calendar Month Average	Mar-Jun, Sep-Dec	Measurement	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Mar-Jun, Sep-Dec	Measurement	1 x Day	10
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Oxygen, Dissolved	Monitor Only	mg/L	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
pH	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	2
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	2 x Week	2
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Phosphorus, Total (as P)	Monitor Only	kg/mo	Calendar Month Total	Jan-Dec	Grab	2 x Week	
Phosphorus, Total (as P)	Monitor Only	kg/yr	Calendar Year To Date Total	Jan-Dec	Calculation	2 x Week	5
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Jun, Jul-Dec	Grab	1 x Half Year	6
Solids, Total Suspended (TSS)	347	kg/day	Calendar Month Average	Jan-Dec	Grab	2 x Week	3
Solids, Total Suspended (TSS)	45	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Week	8
Solids, Total Suspended (TSS)	501	kg/day	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	3
Solids, Total Suspended (TSS)	65	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Week	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	2 x Week	

SD 004: Compliance Tracking for SD001 & SD002

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Phosphorus, Total (as P)	1026.00	kg/yr	Calendar Year To Date Total	Jan-Dec	Calculation	2 x Week	12

SW 001: 45th Street NE (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	

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Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: *Limits Applicable in the Final Period*

SW 002: 105th Ave SE (CSAH 6) (Applicable only during discharge)

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Sulfate, Total (as SO ₄)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	

WS 001: Birch Pond Influent

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH	Monitor Only	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Quarter	1
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Measurement	1 x Day	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7

WS 002: Golf Pond Influent

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH	Monitor Only	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Quarter	1
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Measurement	1 x Day	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Quarter Average	Jan-Dec	4-Hour Flow Composite	1 x Quarter	7

Foley WWTF
Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Notes:

- 1 -- Analyze immediately. Samples may be taken any time during each calendar quarter but must be reported on the DMR for the last month of each quarter (e.g. the sample for the first calendar quarter of Jan - Mar should be reported on the March DMR).
- 2 -- Analyze immediately. Samples shall be collected from the final cell outlet control structure.
- 3 -- Based on a maximum 6-inch per day drawdown rate from the 12.51 acre secondary cell.
- 4 -- Based on a maximum 6-inch per day drawdown rate from the 5.0 acre secondary cell.
- 5 -- For each month multiply total effluent flow (million gal) by monthly average effluent P (mg/L) and by 3.785 (conversion factor) to get P in kg/month. Then add all monthly values from first month of effective period to end date of reporting period.
- 6 -- Only two effluent samples per year are required - one collected during a spring discharge and one collected during a fall discharge. Samples shall be collected from the final cell outlet control structure. Report results on DMR for month when sample was collected. For discharges in other months when sample result has already been reported on a previous DMR, leave DMR box blank. For months with no discharge, check no discharge box.
- 7 -- Samples may be taken any time during each calendar quarter but must be reported on the DMR for the last month of each quarter (e.g. the sample for the first calendar quarter of Jan - Mar should be reported on the March DMR).
- 8 -- Samples shall be collected from the final cell outlet control structure.
- 9 -- The Permittee can request an evaluation of the monitoring results after two years of sampling and the requirement may be withdrawn.
- 10 -- The acceptable discharge periods are March 1 through June 30 and September 1 through December 31.
- 11 -- The problem discharge periods are January through February, July, and August.
- 12 -- This station is to be used for the sum total of phosphorus monitoring from Stations SD001 and SD002.

Chapter 1. Special Requirements

1. Construction Schedule

Schedule

- 1.1 Submit Initiation of Operation Date. The Permittee must notify the MPCA in writing within 14 days after the actual initiation of operation date. The Permittee must comply with all permit requirements and attain final limits within 90 days of the Initiation of Operation date.
- 1.2 Submit Notice to Complete Construction. The Permittee must notify the MPCA in writing at least 14 days before the planned completion of construction date. The MPCA may complete a final inspection.
- 1.3 Submit Final Technical Documents. The Permittee must submit the following to the MPCA within one year after the initiation of operation date:
 - a. An MPCA-approved certification form that is signed by a professional engineer registered in the state of Minnesota stating that the project meets the performance standards.
 - b. A revised operation and maintenance manual or a maintenance plan; or a certificate of completion of an operation and maintenance manual on a form prescribed by the MPCA. At a minimum, this plan must include a detailed discussion of operation and controls, maintenance, sampling and analysis, problem mitigation, VOC management, personnel records and reporting, and safety. This plan must be maintained and updated regularly and made available to the MPCA staff upon request.
 - c. Final signed project record drawings shall be submitted as a Portable Document File (PDF). For specific requirements related to submittals in electronic format see:
<http://www.pca.state.mn.us/index.php/view-documents.html?gid=15492>.

Chapter 1. Special Requirements

2. Special Requirements

- 2.1 The Permittee must submit Plans and Specifications to address accurate flow measurement and representative sampling to each of the pond systems. The plans and specifications must be submitted within one (1) year of permit issuance.
- 2.2 The Permittee must submit for approval to the MPCA a plan on how the Permittee will meet the total phosphorus mass limit of 1,026.0 kilograms per year. The plan must be submitted within one (1) year of permit issuance.
- 2.3 The Permittee must complete construction of the new flow measurement and sampling equipment within two (2) years of permit issuance.
- 2.4 The Permittee shall attain compliance with the final effluent limit for total phosphorus limit within two (2) years of permit issuance.
- 2.5 The Permittee shall notify the MPCA in writing that construction has been completed for the installation of flow measurement and sampling equipment. This notification must be submitted within 30 days of completion of construction.

Chapter 2. Surface Discharge Stations

1. Requirements for Specific Stations

- 1.1 SD 001: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.
- 1.2 SD 002: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.
- 1.3 SD 004: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

2. Special Requirements

- 2.1 The Calendar Year to Date Total Phosphorus limit in units of kg/year is calculated as follows: For each month, multiply the total volume of effluent flow (in million gallons) by the monthly average concentration of effluent Phosphorus (in mg/L) and by a 3.785 conversion factor to get Phosphorus in units of kg/month. Then add all monthly values from the first month in the effective period to the end date of the reporting period. For example, the "effective period" is Jan-Dec and the reporting period ends June 30th, add the monthly values from January through June and report that value as the Calendar Year to Date Total.

3. Sampling Location

- 3.1 Samples for stations SD001 and SD002 shall be collected from each of the final cell outlet control structures.
- 3.2 Samples for Station SD004 shall be calculated using limits and monitoring requirements from Station SD001 + SD002.
- 3.3 Samples and measurements required by this permit shall be representative of the monitored activity.

4. Surface Discharges

- 4.1 Floating solids or visible foam shall not be discharged in other than trace amounts.
- 4.2 Oil or other substances shall not be discharged in amounts that create a visible color film.
- 4.3 The Permittee shall install and maintain outlet protection measures at the discharge stations to prevent erosion.

Chapter 2. Surface Discharge Stations

5. Winter Sampling Conditions

- 5.1 The Permittee shall sample flows at the designated monitoring stations including when this requires removing ice to sample the water. If the station is completely frozen throughout a designated sampling month, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR.

6. Discharge Monitoring Reports

- 6.1 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

Chapter 3. Surface Water Stations

1. Requirements for Specific Stations

- 1.1 SW 001: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.
1.2 SW 002: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

2. Discharge Monitoring Reports

- 2.1 The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If flow conditions are such that no sample could be acquired, the Permittee shall check the "No Flow" box and note the conditions on the Discharge Monitoring Report (DMR).

3. Sampling Location

- 3.1 Samples for Station SW001 shall be taken of Stoney Brooke downstream of the wastewater treatment ponds at 45th Street NE.
3.2 Samples for Station SW002 shall be taken from Rice Creek (Rice Lake's outlet stream) on Sherburne CSAAH 6 at 105th Avenue SE.
3.3 Samples shall be taken at mid-stream, mid-depth. Record location, date, time and results for each sample on the Custom Supplemental Report Form.

4. Sampling Protocol

- 4.1 All instruments used for field measurements shall be maintained and calibrated to insure accuracy of measurements.
4.2 Sample water shall be preserved according to lab instructions and delivered to a certified lab within the minimum holding times.

Chapter 4. Waste Stream Stations

1. Requirements for Specific Stations

- 1.1 WS 001: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.
1.2 WS 002: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

2. Sampling Location

- 2.1 Grab and composite samples shall be collected at a point representative of total influent flow to the system.

Chapter 4. Waste Stream Stations

2. Sampling Location

- 2.2 Influent grab and composite samples for stations WS001 and WS002 shall be collected in the sewer system prior to each of the primary cell.

Chapter 5. Domestic Wastewater -- Pond System

1. Bypass Structures

- 1.1 All structures capable of bypassing the treatment system shall be manually controlled and kept locked at all times.

2. Sanitary Sewer Extension Permit

- 2.1 The Permittee may be required to obtain a Sanitary Sewer Extension Permit from the MPCA prior to the start of construction of any addition, extension or replacement to the sanitary sewer. If a sewer extension permit is required, no construction of any part of the system may begin until that permit has been issued.

3. Operator Certification

- 3.1 The Permittee shall provide a Class D state certified operator who is in direct responsible charge of the operation, maintenance and testing functions required to ensure compliance with the terms and conditions of this permit.
- 3.2 If the Permittee chooses to meet operator certification requirements through a contractual agreement, the Permittee shall provide a copy of the contract to the MPCA, WQ Submittals Center. The contract shall include the certified operator's name, certificate number, company name if appropriate, the period covered by the contract and provisions for renewal; the duties and responsibilities of the certified operator; the duties and responsibilities of the permittee; and provisions for notifying the MPCA 30 days in advance of termination if the contract is terminated prior to the expiration date.
- 3.3 The Permittee shall notify the MPCA in writing within 30 days of a change in operator certification or contract status. Mail operator changes to: 520 Lafayette Road, St. Paul, Minnesota, 55155-4194.

4. Ponds - Acceptable Discharge Periods

- 4.1 Acceptable Discharge Periods are March 1 through June 30 and September 1 through December 31 for facilities located in the Detroit Lakes, Brainerd and Duluth regions.
- 4.2 Effluent limitations for this permit have been assigned based upon the assumption that the receiving waters exhibit favorable flow and reaeration characteristics during the acceptable discharge periods.

5. Ponds - Discharges Outside Acceptable Discharge Periods

- 5.1 For discharges occurring outside the acceptable discharge periods, refer to the "Stabilization Pond Guidance Discharge Guidance" located at www.pca.state.mn.us/water/wastewater.html#operation. If any of the discharge occurs outside of the acceptable discharge periods, the Permittee shall notify the MPCA of the potential noncompliance prior to discharge. The Permittee shall call the appropriate regional office and indicate that the call is for notification of a pond discharge.
- 5.2 For any discharge outside of acceptable discharge periods or to an ice covered receiving water, an adequate dilution ratio is required. If an adequate dilution ratio is not available, receiving water monitoring is required.
- 5.3 For any discharge outside of acceptable discharge periods or to an ice covered receiving water, the Permittee shall submit a "Discharge Evaluation Report" on a form provided in the "Stabilization Pond Discharge Guidance" located at www.pca.state.mn.us/water/wastewater.html#operation.

Chapter 5. Domestic Wastewater -- Pond System

6. Ponds - Discharge Rate

- 6.1 The discharge rate shall be limited so as not to create a shock load on the receiving waters, disturb the pond bottom sediment in the area of the intake of the outfall structure or flood downstream properties. If the drawdown rate should exceed six (6) inches per day, call the MPCA at the appropriate regional office and indicate that the call is for notification of a pond discharge.

7. Ponds - Pre-discharge Sampling

- 7.1 If predischage sample results indicate that one or more of the effluent limitations may be exceeded, the Permittee shall notify the MPCA of potential noncompliance prior to discharge. The Permittee shall call the MPCA at the appropriate regional office and indicate that the call is for notification of a pond discharge.
- 7.2 Samples shall be taken from four sides of the pond and composited prior to discharge and analyzed for permitted parameters. This sampling must be taken no more than two weeks prior to the beginning of the discharge; dissolved oxygen and pH (both are field tests) must be taken no more than 24 hours prior to the beginning of the discharge. If more than two weeks pass prior to the beginning of discharge, additional predischage samples shall be obtained and analyzed prior to discharge.

8. Ponds - Observations

- 8.1 The Permittee shall inspect the pond system weekly, and shall take measurements of pond water depth, estimate the coverage of aquatic plants, floating mats and ice cover on the surface of the ponds, and note odors, the condition of the dikes and the presence of muskrats. The Permittee shall maintain records of these weekly inspections for the last three (3) years, and submit the results on the Discharge Monitoring Report (DMR) supplemental form.
- 8.2 The Permittee shall maintain daily precipitation records.

Chapter 6. Domestic Wastewater -- Pretreatment

1. Pretreatment - Definitions

- 1.1 An "Individual Control Mechanism" is a document, such as an agreement or permit, that imposes limitations or requirements on an individual industrial user of the POTW.
- 1.2 "Significant Industrial User" (SIU) means any industrial user that:
- a. discharges 25,000 gallons per day or more of process wastewater;
 - b. contributes a load of five (5) % or more of the capacity of the POTW; or
 - c. is designated as significant by the Permittee or the MPCA on the basis that the SIU has a reasonable potential to adversely impact the POTW, or the quality of its effluent or residuals. (Minn. R. 7049.0120, Subp. 24)

2. Pretreatment - Permittee Responsibility to Control Users

- 2.1 It is the Permittee's responsibility to regulate the discharge from users of its wastewater treatment facility. The Permittee shall prevent any pass through of pollutants or any inhibition or disruption of the Permittee's facility, its treatment processes, or its sludge processes or disposal that contribute to the violation of the conditions of this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. (Minn. R. 7049.0600)

Chapter 6. Domestic Wastewater -- Pretreatment

2. Pretreatment - Permittee Responsibility to Control Users

2.2 The Permittee shall prohibit the discharge of the following to its wastewater treatment facility:

- a. pollutants which create a fire or explosion hazard, including any discharge with a flash point less than 60 degrees C (140 degrees F);
- b. pollutants which would cause corrosive structural damage to the POTW, including any waste stream with a pH of less than 5.0;
- c. solid or viscous pollutants which would obstruct flow;
- d. heat that would inhibit biological activity, including any discharge that would cause the temperature of the waste stream at the POTW treatment plant headworks to exceed 40 degrees C (104 degrees F);
- e. pollutants which produce toxic gases, vapors, or fumes that may endanger the health or safety of workers; or
- f. any pollutant, including oxygen demanding pollutants such as biochemical oxygen demand, released at a flow rate or pollutant concentration that will cause interference or pass through. (Minn. R. 7049.0140)

2.3 The Permittee shall prohibit new discharges of non-contact cooling waters unless there is no cost effective alternative. Existing discharges of non-contact cooling water to the Permittee's wastewater treatment facility shall be eliminated, where elimination is cost-effective, or where an infiltration/inflow analysis and sewer system evaluation survey indicates the need for such removal.

2.4 If the Permittee accepts trucked-in wastes, the Permittee shall evaluate the trucked in wastes prior to acceptance in the same manner as it monitors sewered wastes. The Permittee shall accept trucked-in wastes only at specifically designated points. (Minn. R. 7049.0140, Subp. 4)

2.5 Pollutant of concern means a pollutant that is or may be discharged by an industrial user that is, or reasonably should be of concern on the basis that it may cause the permittee to violate any permit limits on the release of pollutants. The following pollutants shall be evaluated to determine if they should be pollutants of concern: pollutants limited in this permit, pollutants for which monitoring is required in this permit, pollutants that are likely to cause inhibition of the Permittee's POTW, pollutants which may interfere with sludge disposal, pollutants for which the Permittee's treatment facility has limited capacity. (Minn. R. 7049.0120, Subp. 13)

3. Control of Significant Industrial Users

3.1 The Permittee shall impose pretreatment requirements on SIUs which will ensure compliance with all applicable effluent limitations and other requirements set forth in this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. These requirements shall be applied to SIUs by means of an individual control mechanism. (Minn. R. 7049.0600)

3.2 The Permittee shall not knowingly enter into an individual control mechanism with any user that would allow the user to contribute an amount or strength of wastewater that would cause violation of any limitation or requirement in the permit, or any applicable federal, state or local law or regulation. (Minn. R. 7049.0600 Subp. 3)

4. Monitoring of Significant Industrial Users

4.1 The Permittee shall obtain from SIUs specific information on the quality and quantity of the SIU's discharges to the Permittee's POTW. Except where specifically requested by the Permittee and approved by the MPCA, this information shall be obtained by means of representative monitoring conducted by the Permittee or by the SIU under requirements imposed by the Permittee in the SIU's individual control mechanism. Monitoring performed to comply with this requirement shall include all pollutants for which the SIU is significant and shall be done at a frequency commensurate with the significance of the SIU. (Minn. R. 7049.0710)

Chapter 6. Domestic Wastewater -- Pretreatment

5. Reporting and Notification

- 5.1 If a SIU discharges to the POTW during a given calendar year, the Permittee shall submit a Pretreatment Annual Report for that calendar year, due by January 31 of the following year. The Pretreatment Annual Report shall be submitted on forms provided by the agency or shall provide equivalent information.

The Permittee shall submit the pre-treatment report to the following address:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194 (Minn. R. 7049.0720)

- 5.2 The Permittee shall notify the MPCA in writing of any:

- a. SIU of the Permittee's POTW which has not been previously disclosed to the MPCA;
- b. anticipated or actual changes in the volume or quality of discharge by an industrial user that could result in the industrial user becoming an SIU as defined in this chapter; or
- c. anticipated or actual changes in the volume or quality of discharges by a SIU that would require changes to the SIU's required local limits.

This notification shall be submitted within 30 days of identifying the IU as a SIU. Where changes are proposed, they must be submitted prior to changes being made. (Minn. R. 7049.0700, Subp. 1)

- 5.3 Upon notifying the MPCA of a SIU or change in a SIU discharge as required above, the Permittee shall submit the following information on forms provided by the agency or in a comparable format:

- a. the identity of the SIU and a description of the SIU's operation and process;
- b. a characterization of the SIU's discharge;
- c. the required local limits that will be imposed on the SIU;
- d. a technical justification of the required local limits; and
- e. a plan for monitoring the SIU which is consistent with monitoring requirements in this chapter. (Minn. R. 7049.0700)

- 5.4 In addition, the Permittee shall, upon request, submit the following to the MPCA for approval:

- a. additional information on the SIU, its processes and discharge;
- b. a copy of the individual control mechanism used to control the SIU;
- c. the Permittee's legal authority to be used for regulating the SIU; and
- d. the Permittee's procedures for enforcing the requirements imposed on the SIU. (Minn. R. 7049.0700, Subp. 3)

- 5.5 The permittee shall notify MPCA of any of its industrial users that may be subject to national categorical pretreatment standards.

- 5.6 This permit may be modified in accordance with Minnesota Rules, ch. 7001 to require development of a pretreatment program approvable under the Federal General Pretreatment Regulation (40 CFR 403).

Chapter 7. Total Facility Requirements

1. General Requirements

General Requirements

- 1.1 **Incorporation by Reference.** The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.
- 1.2 **Permittee Responsibility.** The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)
- 1.3 **Toxic Discharges Prohibited.** Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)
- 1.4 **Nuisance Conditions Prohibited.** The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)
- 1.5 **Property Rights.** This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- 1.6 **Liability Exemption.** In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)
- 1.7 **The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes.** (Minn. R. 7001.0150, subp.3, item D)
- 1.8 **Liabilities.** The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)
- 1.9 **The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee.** (Minn. R. 7001.0150, subp.3, item B)
- 1.10 **Severability.** The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
- 1.11 **Compliance with Other Rules and Statutes.** The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.
- 1.12 **Inspection and Entry.** When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.13 Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Sampling

- 1.14 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))
- 1.15 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)
- 1.16 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through 4740.2120) (Minn. R. 4740.2010 and 4740.2050 through 2120)
- 1.17 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.
- 1.18 Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. (Minn. R. 7001.0150, subp. 2, items B and C)
- 1.19 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information (Minn. R. 7001.0150, subp. 2, item C):
- a. The exact place, date, and time of the sample or measurement;
 - b. The date of analysis;
 - c. The name of the person who performed the sample collection, measurement, analysis, or calculation; and
 - d. The analytical techniques, procedures and methods used; and
 - e. The results of the analysis.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.20 Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified. (Minn. R. 7001.1090, subp. 1, item D; Minn. R. 7001.0150, subp. 2, item B)

Required forms may include:

DMR Supplemental Form

Individual values for each sample and measurement must be recorded on the DMR Supplemental Form which, if required, will be provided by the MPCA. DMR Supplemental Forms shall be submitted with the appropriate DMRs. You may design and use your own supplemental form; however it must be approved by the MPCA. Note: Required summary information **MUST** also be recorded on the DMR. Summary information that is submitted **ONLY** on the DMR Supplemental Form does not comply with the reporting requirements.

- 1.21 Submitting Reports. DMRs and DMR Supplemental Forms shall be submitted to:

MPCA

Attn: Discharge Monitoring Reports
520 Lafayette Road North
St. Paul, Minnesota 55155-4194.

DMRs and DMR Supplemental Forms shall be postmarked by the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period. (Minn. R. 7001.0150, subps. 2.B and 3.H)

Other reports required by this permit shall be postmarked by the date specified in the permit to:

MPCA

Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

- 1.22 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150 subp. 3, item G)
- 1.23 Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.24 **Detection Level.** The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

- a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.
 - b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection.
 - c. Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. (Minn. R. 7001.0150, subp. 2, item B)
- 1.25 **Records.** The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)
- 1.26 **Confidential Information.** Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

- 1.27 **Subject to Enforcement Action and Penalties.** Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)
- 1.28 **Criminal Activity.** The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp. 3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)
- 1.29 **Noncompliance Defense.** It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))
- 1.30 **Effluent Violations.** If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. Violations that are determined to pose a threat to human health or a drinking water supply, or represent a significant risk to the environment shall be immediately reported to the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area). In addition, you may also contact the MPCA during business hours. Otherwise the violations and the results of any additional sampling shall be recorded on the next appropriate DMR or report.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.31 Unauthorized Releases of Wastewater Prohibited. Except for conditions specifically described in Minn. R. 7001.1090, subp. 1, items J and K, all unauthorized bypasses, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)
- 1.32 Discovery of a release. Upon discovery of a release, the Permittee shall:
- a. Take all reasonable steps to immediately end the release.
 - b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon discovery of the release. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area).
 - c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.
 - d. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.
 - e. Submit the sampling results as directed by the MPCA. At a minimum, the results shall be submitted to the MPCA with the next DMR.
- 1.33 Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:
- a. The specific cause of the upset;
 - b. That the upset was unintentional;
 - c. That the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;
 - d. That at the time of the upset the facility was being properly operated;
 - e. That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and
 - f. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

Operation and Maintenance

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.34 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F.
- 1.35 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)
- 1.36 Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)
- 1.37 Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)
- 1.38 Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

Changes to the Facility or Permit

- 1.39 Permit Modifications. No person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the Agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to the facility or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

- 1.40 Construction. No construction shall begin until the Permittee receives written approval of plans and specifications from the MPCA (Minn. Stat. Sec. 115.03(f)).

Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.

If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented.

- 1.41 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.42 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use.

This written request shall include at least the following information for the proposed additive:

- a. The process for which the additive will be used;
- b. Material Safety Data Sheet (MSDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive;
- c. A complete product use and instruction label;
- d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and
- e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use.

Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements.

Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard. (Minn. R. 7001.0170)

- 1.43 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.
- 1.44 TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR 122.44.1.2.i., necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies.
- 1.45 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R., 7001.0150, subp. 3, item N)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.46 Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.

Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. (Minn. Stat. Sec. 116.07, subd. 4)

- 1.47 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

- a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;
- b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;
- c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.

Submittals and Actions Checklist

Foley WWTF

This checklist is intended to assist you in tracking the reporting requirements of your permit. However, it is only an aid. PLEASE CONSULT YOUR PERMIT FOR THE EXACT REQUIREMENTS.

Please note: This checklist only details submittal requirements for the next five years. DMRs, Annual Reports, and many other submittals are required even after the expiration date of this permit, and continue to be due until the permit is either reissued or terminated.

Submit DMRs to:

Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Rd N
St. Paul, MN 55155

Submit other WQ reports to:

Attention: Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St. Paul, MN 55155

MPCA Staff Contacts:

For DMR-related questions:
Tamara Dahl at (507)476-4252
For other questions:
Herschel Blasing at (218)316-3860

2012

- ☐ Submit DMR (due before Apr 22)
- ☐ Submit DMR (due before May 22)
- ☐ Submit DMR (due before Jun 22)
- ☐ Submit DMR (due before Jul 22)
- ☐ Submit DMR (due before Aug 22)
- ☐ Submit DMR (due before Sep 22)
- ☐ Submit DMR (due before Oct 22)
- ☐ Submit DMR (due before Nov 22)
- ☐ Submit DMR (due before Dec 22)

2013

- ☐ Submit DMR (due before Jan 22)
- ☐ Submit DMR (due before Feb 22)
- ☐ submit a plan (due before Mar 1) {Permit Req't. 1.2.2}
- ☐ Submit plans and specifications (due before Mar 1) {Permit Req't. 1.2.1}
- ☐ Submit DMR (due before Mar 22)
- ☐ Submit DMR (due before Apr 22)
- ☐ Submit DMR (due before May 22)
- ☐ Submit DMR (due before Jun 22)
- ☐ Submit DMR (due before Jul 22)
- ☐ Submit DMR (due before Aug 22)
- ☐ Submit DMR (due before Sep 22)
- ☐ Submit DMR (due before Oct 22)
- ☐ Submit DMR (due before Nov 22)
- ☐ Submit DMR (due before Dec 22)

2014

- ☐ Submit DMR (due before Jan 22)
- ☐ Submit DMR (due before Feb 22)
- ☐ attain compliance with final effluent limits (due before Mar 1) {Permit Req't. 1.2.4}
- ☐ Complete construction (due before Mar 1) {Permit Req't. 1.2.3}
- ☐ Submit DMR (due before Mar 22)
- ☐ Submit DMR (due before Apr 22)
- ☐ Submit DMR (due before May 22)
- ☐ Submit DMR (due before Jun 22)
- ☐ Submit DMR (due before Jul 22)
- ☐ Submit DMR (due before Aug 22)
- ☐ Submit DMR (due before Sep 22)
- ☐ Submit DMR (due before Oct 22)
- ☐ Submit DMR (due before Nov 22)
- ☐ Submit DMR (due before Dec 22)

2015

- ☐ Submit DMR (due before Jan 22)
- ☐ Submit DMR (due before Feb 22)

Submittals and Actions Checklist

Foley WWTF

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Please note: This checklist only details submittal requirements for the next five years. DMRs, Annual Reports, and many other submittals are required even after the expiration date of this permit, and continue to be due until the permit is either reissued or terminated.

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Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Rd N
St. Paul, MN 55155

Submit other WQ reports to:

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St. Paul, MN 55155

MPCA Staff Contacts:

For DMR-related questions:
Tamara Dahl at (507)476-4252
For other questions:
Herschel Blasing at (218)316-3860

2015

- ☐ Submit DMR (due before Mar 22)
- ☐ Submit DMR (due before Apr 22)
- ☐ Submit DMR (due before May 22)
- ☐ Submit DMR (due before Jun 22)
- ☐ Submit DMR (due before Jul 22)
- ☐ Submit DMR (due before Aug 22)
- ☐ Submit DMR (due before Sep 22)
- ☐ Submit DMR (due before Oct 22)
- ☐ Submit DMR (due before Nov 22)
- ☐ Submit DMR (due before Dec 22)

2016

- ☐ Submit DMR (due before Jan 22)
- ☐ Submit DMR (due before Feb 22)
- ☐ Submit DMR (due before Mar 22)
- ☐ Submit DMR (due before Apr 22)
- ☐ Submit DMR (due before May 22)
- ☐ Submit DMR (due before Jun 22)
- ☐ Submit DMR (due before Jul 22)
- ☐ Submit DMR (due before Aug 22)
- ☐ Submit an application for permit reissuance (due before Sep 1) {Permit Req't. 7.1.47}
- ☐ Submit DMR (due before Sep 22)
- ☐ Submit DMR (due before Oct 22)
- ☐ Submit DMR (due before Nov 22)
- ☐ Submit DMR (due before Dec 22)

2017

- ☐ Submit DMR (due before Jan 22)
- ☐ Submit DMR (due before Feb 22)

Other Submittals

- ☐ Submit Final Technical Documents. The Permittee must submit the following to the MPCA within one year after the initiation of operation date:

a. An MPCA-approved certification form that is signed by a professional engineer registered in the state of Minnesota stating that the project meets the performance standards.

b. A revised operation and maintenance manual or a maintenance plan; or a certificate of completion of an operation and maintenance manual on a form prescribed by the MPCA. At a minimum, this plan must include a detailed discussion of operation and controls, maintenance, sampling and analysis, problem mitigation, VOC management, personnel records and reporting, and safety. This plan must be maintained and updated regularly and made available to the MPCA staff upon request.

c. Final signed project record drawings shall be submitted as a Portable Document File (PDF). For specific requirements related to submittals in electronic format see: <http://www.pca.state.mn.us/index.php/view-documents.html?gid=15492>. {Permit Req't. 1.1.3}

- ☐ Submit Initiation of Operation Date. The Permittee must notify the MPCA in writing within 14 days after the actual initiation of operation date. The Permittee must comply with all permit requirements and attain final limits within 90 days of the Initiation of Operation date. {Permit Req't. 1.1.1}
- ☐ Submit Notice to Complete Construction. The Permittee must notify the MPCA in writing at least 14 days before the planned completion of construction date. The MPCA may complete a final inspection. {Permit Req't. 1.1.2}
- ☐ The Permittee shall notify the MPCA in writing that construction has been completed for the installation of flow measurement and sampling equipment. This notification must be submitted within 30 days of completion of construction. {Permit Req't. 1.2.5}

Appendix C

Preliminary Effluent Limits

Ms. Jessica Hedin, P.E.
Short Elliott Hendrickson (S.E.H.)
1200 25th Avenue South
P.O. Box 1717
Saint Cloud, MN 56302-1717

RE: Effluent Limitations Applicable to a Proposed Upgrade to the Foley Wastewater Treatment Facility (WWTF).

Dear Ms. Hedin:

This is in response to your request of September 11, 2017 for preliminary effluent limitations applicable to a proposed upgrade at the Foley Wastewater Treatment Facility (WWTF). The City of Foley currently operates two stabilization wastewater treatment facility (Birch Ponds & Golf Ponds) that discharges on controlled basis to the Stoney Brook from two discharge outfalls (SD001 & SD002). The Foley WWTF is currently permitted at average wet weather flow (AWWF) of 371,300 gallons per day, with 161,000 gallons per day discharging through SD001 and 210,300 gallons per day through SD002.

The treated effluent is discharged on a controlled basis to the Stoney Brook. Stoney Brook has been assigned use classifications of 7, 3C, 4A, 4B, 5 and 6 waters of the state under Minnesota Pollution Control Agency (MPCA) Minn. R. ch. 7050. These multiple classifications include consideration for aquatic life and recreation, industrial consumption, agriculture and wildlife, aesthetic enjoyment and navigation, and other beneficial uses not specifically listed.

The current effluent limitations in the city of Foley NPDES permit applicable to the existing Foley WWTF is summarized in the table below.

Substance or Characteristic	Limiting Concentration or Range Controlled Discharge	Limiting Concentration or Range Controlled Discharge
SECONDARY POND, acres	5.00	12.51
OUTFALL	SD001	SD002
FLOW, mgd	0.161	0.2103
Five Day Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	25 mg/L (77.02 kg/day) ⁽³⁾	25 mg/L (192.70 kg/day) ⁽³⁾
Total Suspended Solids	45 mg/L (139.0 kg/day) ⁽³⁾	45 mg/L (347.0 kg/day) ⁽³⁾

Fecal Coliform Organisms ⁽¹⁾	200 organisms/100mL
pH Range (Standard Unit)	6.0 – 9.0
Total Phosphorus ⁽²⁾	1026 kg/yr

1. Applicable from May – October.
2. The combined total phosphorus limit for both SD001 & SD002 is 1026 kg/yr.
3. The mass load limit in parenthesis (kg/day).

The proposed upgrade to the Foley WWTF includes four different options. The four options are:

OPTION 1:

A Stabilization Ponds Facility with additional 13.05 acres of secondary pond to the existing 17.51 acres of secondary pond (Birch (5 acres) and Golf (12.51) ponds) totaling to 30.56 acres. The treated effluent will be discharged on a controlled basis to the existing receiving water, the Stoney Brook through a new outfall SD00X.

OPTION 2:

A Stabilization Ponds Facility with additional 27.15 acres of secondary pond to the existing 17.51 acres of secondary pond (Birch (5 acres) and Golf (12.51) ponds) totaling to 44.66 acres. The treated effluent will be discharged on a controlled basis to the existing receiving water, the Stoney Brook through a new outfall SD00X.

OPTION 3:

An Aerated Ponds Facility with design capacity of AWWF of 0.691 mgd. The treated effluent will be discharged on a continuous basis to the existing receiving water, the Stoney Brook through a new outfall SD00X.

OPTION 4:

A Mechanical Facility with design capacity of AWWF 0.691 mgd. The treated effluent will be discharged on a continuous basis to the existing receiving water, the Stoney Brook through a new outfall SD00X.

For your planning purposes, the preliminary effluent limitations applicable to the four different discharge options from the proposed Foley WWTF to the Stoney Brook are indicated in the table attached.

The Antidegradation Provision

The proposed changes to the facility may result in an increase in pollutant loading to surface waters or other causes of degradation to surface waters. If a change to the facility will result in a net increase in pollutant loading or other causes of degradation that exceed the maximum loading authorized through conditions specified in the existing permit, the changes to the facility are subject to antidegradation requirements found in Minn. R. 7050 to 7050.0335.

In order to comply with the antidegradation requirements the permittee must choose one of the two following options:

1. "Freeze" mass limits at their current level in lieu of an antidegradation review.
2. Submit an antidegradation review that meets the antidegradation requirements in Minn. R. 7050.

A full antidegradation review must be completed and approved in order to determine the final limits for the selected option. An antidegradation review is a substantial review that must consider all beneficial uses of the receiving water, potential economic impact, all other possible treatment options and all potential environmental degradation.

If you have any questions or comments regarding this letter, please call me at 651-757-2381 or e-mail gbolahan.gbadamosi@state.mn.us.

Sincerely,

Gbolahan I. Gbadamosi, P.E.
Engineer Senior
Effluent Limits Unit
Environmental Analysis and Outcomes Division

CITY OF FOLEY
PROPOSED EFFLUENT LIMITATIONS

		PROPOSED WWTF OPTIONS			
		OPTION 1	OPTION2	OPTION 3	OPTION 4
	EXISTING WWTF				
FACILITY TYPE	STABILIZATION PONDS	STABILIZATION PONDS	STABILIZATION PONDS	AERATED PONDS	MECHANICAL WWTF
SECONDARY POND (acres)	5.00	12.51	27.15		
EXISTING SECONDARY POND (acres)			+17.51		
TOTAL WITH ADDITIONAL SECONDARY POND (acres)		30.56	44.66		
DISCHARGE TYPE	CONTROLLED	CONTROLLED	CONTROLLED	CONTINUOUS	CONTINUOUS
OUTFALL	SD001 SD002	SD00X	SD00X	SD00X	SD00X
FLOW, mgd (AWWF)	0.161	0.607	0.607	0.691	0.691
FLOW, mgd (ADWF)	NA	0.500	0.500	0.500	0.500
EFFLUENT LIMITS					
CBOD ₅ , mg/L	25	25	25	15	15
CBOD ₅ , kg/day ⁽¹⁾	77.02	192.70	687.92	39.30	39.30
CBOD ₅ , kg/day (mass freeze) ⁽²⁾⁽⁶⁾					
		269.72	35.15		

TSS, mg/L	45	45	45	45	45	30
TSS, kg/day ⁽³⁾	139.00	347.00	847.32	1238.30	117.80	78.60
TSS, kg/day (mass freeze) ⁽⁴⁾⁽⁶⁾			486.00		63.27	
Fecal Coliform Organisms, orgs/100 mL ⁽⁵⁾				200		
pH (Range) (standard unit)				6.0-9.0		
Phosphorus, kg/yr				1026		

1. The CBOD5 mass load limit is calculated using the six-inch daily drawdown during the discharge window in the Fall & Spring for the controlled discharge option.
SD001 - 25 mg/L * [5 acres * 0.5 ft./day * 0.326 mg/acre-ft.] * 3.78 kg/day = 77.02 kg/day
SD002 - 25 mg/L * [12.51 acres * 0.5 ft./day * 0.326 mg/acre-ft.] * 3.78 kg/day = 192.70 kg/day
OPTION 1: SD00X - 25 mg/L * [30.56 acres * 0.5 ft./day * 0.326 mg/acre-ft.] * 3.78 kg/day = 470.73 kg/day
OPTION 2: SD00X - 25 mg/L * [44.66 acres * 0.5 ft./day * 0.326 mg/acre-ft.] * 3.78 kg/day = 687.92 kg/day
For the continuous discharge, the mass load limit is calculated as indicated below
OPTION 3: SD00X - 15 mg/L * 0.691 mgd * 8.341 lb/day * 0.454 kg/day = 39.3 kg/day
OPTION 4: SD00X - 15 mg/L * 0.691 mgd * 8.341 lb/day * 0.454 kg/day = 39.3 kg/day
2. The CBOD5 mass freeze is the existing permitted load.
For the controlled discharge, it is the sum of the existing load at SD001 & SD002
OPTION 1 & 2: SD00X = SD001 + SD002 = 77.02 + 192.7 = 269.72 kg/day
For the continuous discharge, the mass load limit is calculated as indicated below

OPTION 3 & 4 : SD00X = 0.3713 mgd * 25 mg/L * 8.341 lbs/day * 0.454 kg/day = 35.15 kg/day

3. The TSS mass load limit is calculated using the six-inch daily drawdown during the discharge window in the Fall & Spring for the controlled discharge option.
 $\text{SD001} - 45 \text{ mg/L} * [5 \text{ acres} * 0.5 \text{ ft./day} * 0.326 \text{ mg/acre-ft.}] * 3.78 \text{ kg/day} = 138.63 \text{ kg/day}$
 $\text{SD002} - 45 \text{ mg/L} * [12.51 \text{ acres} * 0.5 \text{ ft./day} * 0.326 \text{ mg/acre-ft.}] * 3.78 \text{ kg/day} = 346.90 \text{ kg/day}$
 $\text{OPTION 1: SD00X} - 45 \text{ mg/L} * [30.56 \text{ acres} * 0.5 \text{ ft./day} * 0.326 \text{ mg/acre-ft.}] * 3.78 \text{ kg/day} = 847.32 \text{ kg/day}$
 $\text{OPTION 2: SD00X} - 45 \text{ mg/L} * [44.66 \text{ acres} * 0.5 \text{ ft./day} * 0.326 \text{ mg/acre-ft.}] * 3.78 \text{ kg/day} = 1238.30 \text{ kg/day}$
 For the continuous discharge, the mass load limit is calculated as indicated below
 $\text{OPTION 3: SD00X} - 45 \text{ mg/L} * 0.691 \text{ mgd} * 8.341 \text{ lb/day} * 0.454 \text{ kg/day} = 117.8 \text{ kg/day}$
 $\text{OPTION 4: SD00X} - 30 \text{ mg/L} * 0.691 \text{ mgd} * 8.341 \text{ lb/day} * 0.454 \text{ kg/day} = 78.60 \text{ kg/day}$
4. The TSS mass freeze is the existing permitted load.
 For the controlled discharge, it is the sum of the existing load at SD001 & SD002
 $\text{OPTION 1 \& 2: SD00X} = \text{SD001} + \text{SD002} = 139.0 + 347.0 = 486.0 \text{ kg/day}$
 For the continuous discharge, the mass load limit is calculated as indicated below
 $\text{OPTION 3 \& 4 : SD00X} = 0.3713 \text{ mgd} * 45 \text{ mg/L} * 8.341 \text{ lbs/day} * 0.454 \text{ kg/day} = 63.27 \text{ kg/day}$
5. Applicable May - October
6. The proposed upgrade will trigger the antidegradation provisions of the MPCA rules and would require additional review under the Min. R. chapter 7050.
 Additional review under the antidegradation provisions of the MPCA rules is not required if the city accept to maintain the current permitted mass loading rates.
 Accepting the TSS mass limit freeze, the city will not have to monitor for mercury.

From: [Gbadamosi, Gbolahan \(MPCA\)](#)
To: [Jessica Hedlin \(jhedin@sehinc.com\)](mailto:jhedin@sehinc.com)
Subject: Foley WWTF Preliminary Effluent Limits
Date: 09/21/2018 10:52 AM
Attachments: [Foley WWTF Response Letter v2 2017.docx](#)
[Foley Proposed Expansion Effluent Limits Final 2018.xlsx](#)

Jessica,

Please find attached the response to your letter of August 22, 2018. The revised flow of 199,000 gpd would not change the preliminary effluent limits as previously recommended as long as the mass cap for CBOD and TSS are accepted.

Please contact me with any questions. Thanks.

Gbolahan I. Gbadamosi, P.E.

Minnesota Pollution Control Agency (MPCA)
Environmental Analysis and Outcomes Division
651-757-2381 | Fax: 651-297-7709
gbolahan.gbadamosi@state.mn.us



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Appendix D

City of Foley Sewer Ordinance and SIU Agreement

Section 305 – Public Sewers, Industrial Wastes

Section 305:00. Definitions. The meaning of terms used in this ordinance shall be as follows:

Subd. 1. “City” shall mean the City of Foley, Minnesota, or any authorized person acting in its behalf.

Subd. 2. “Person” shall mean any and all persons, natural or artificial, including any individual, firm, company, municipal or private organization, association, governmental agency or other entrete and agents, servants or employees.

Subd. 3. “Approving Authority” shall mean the city council of the City of Foley or its duly authorized agent, or representative.

Subd. 4. “Sewage” shall mean a combination of the water-carried waste from residences, business buildings, institutions and industrial establishments, together with such ground surface and storm water as may be present.

Subd. 5. “Domestic Sewage” shall mean water-borne wastes normally discharging into the sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories and institutions, free of storm surface water and industrial wastes.

Subd. 6. “Normal” domestic sewage shall mean normal sewage for the City of Foley in which the average concentration of suspended materials and a 5-day B.O.D. is established at 300 parts per million each, by weight, on the basis of the normal daily contribution of seventeen hundredths (0.17) pounds per capita per 100 gallons.

Subd. 7. “Garbage” shall mean solid wastes and residue from the preparation, cooking and dispensing of food, and from the handling, storage and sale of food products and produce.

Subd. 8. “Properly Shredded Garbage” shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such degree that all particles shall be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch in any dimension.

Subd. 9. “Sewer” shall mean a pipe or conduit for carrying sanitary sewage.

Subd. 10. “Public Sewer” shall mean a sewer in which all owners of abutting properties shall have equal rights and interest controlled by public authority.

Subd. 11. "Sanitary Sewer" shall mean a sewer that conveys sewage or industrial wastes or a combination of both, and into which storm, surface and ground waters or unpolluted industrial wastes are not intentionally passed.

Subd. 12. "Storm Sewer or Storm Drain" shall mean a sewer which carries storm and surface waters and drainage but excludes sewage and polluted industrial wastes.

Subd. 13. "Sewerage Works" shall mean all facilities for collecting, pumping, treating and disposing of sewage and industrial wastes and would include sewage, as well as the sewage treatment facilities.

Subd. 14. "Collection System" shall mean the system of sewers and appurtenances for the collection, transportation and pumping of sewage and industrial wastes.

Subd. 15. "Sewage Treatment Facilities" shall mean any city owned facility, devices and structures used for receiving and treating sewage from the city sanitary sewer system.

Subd. 16. "pH" shall mean the logarithm (base 10) of the reciprocal of the hydrogen ion concentration expressed in moles per liter. It shall be determined by one of the procedures outlined in "Standard Methods."

Subd. 17. "B.O.D." shall mean the quantity of oxygen expressed in parts per million by weight, utilized in the bio-chemical oxidation of organic matter under standard laboratory conditions for five days at a temperature of 20 degrees Centigrade. The laboratory determinations shall be made in accordance with procedures set forth in "Standard Methods."

Subd. 18. "Suspended Solids" shall mean solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in "Standard Methods."

Subd. 19. "Unpolluted Water or Waste" shall mean water or waste containing none of the following: free of emulsified grease or oil; acids or alkalis; phenols or other substances imparting taste and odor in receiving water; toxic or poisonous substances in suspension; colloidal state or solution and noxious or otherwise obnoxious odorous gases. It shall contain not more than 10 parts per million each of suspended solids and B.O.D. The color shall not exceed fifty parts per million.

Subd. 20. "Standard Methods" shall mean the examination and analytical procedures set forth in the latest Edition at the time of analysis of "Standard Methods for the Examination of Water and Sewage" as prepared, approved and published jointly by the American Public Health Association and the Water Pollution Control Federation.

Subd. 21. "Building Drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys to the building sewer, beginning three feet outside the inner face of the building wall.

Subd. 22. "Building Sewer" shall mean the extension from the building drain to the sewer or other place of disposal.

Subd. 23. "Natural Outlet" shall mean any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

Subd. 24. "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

Subd. 25. "Parts per Million" shall mean a weight-to-weight ratio; the parts-per-million value multiplied by the factor 8.345 shall be equivalent to pounds per million gallons of water.

Subd. 26. "Industrial Service Charge" shall mean the charge made to users of the public sewer system whose wastes exceed in strength the concentration values established as representative of normal sewage or exceed 20,000 gallons in average daily flow.

Subd. 27. "Storm Water Runoff" shall mean that portion of the rain fall that is drained into the sewers.

Subd. 28. "Industrial Waste" shall mean water-borne solids, liquids or gaseous wastes resulting from and discharged, permitted to flow or escaping from any industrial, manufacturing or food processing operation or process or from the development of any natural resource, or any mixture of these with water or domestic sewage as distinct from normal domestic sewage.

Subd. 29. "Operation and Maintenance Cost" shall mean annual expenditures made by the city in the operation and maintenance of its sewage treatment facilities, consisting of and limited to the sums spent for each and all of the following purposes for the twelve month period prior to computing the industrial service charge:

- a. Wages and salaries of operating, maintenance and supervisory personnel, together with premiums paid on such wages and salaries for State of Minnesota workmen's compensation coverage and other insurance benefits normally paid by the city.
- b. Actual sums paid for electricity for light and power used for sewage collection and treatment facilities.

- c. Actual sums paid for chemicals, fuel and other operating supplies.
- d. Actual sums paid for repairs to and maintenance of sewage treatment facilities and the equipment associated therewith.
- e. Actual sums paid as premiums for hazard insurance carried on sewerage works.
- f. Actual sums paid as premiums for insurance providing coverage against liability imposed by law for the injury to persons and/or property (including death) of any person or persons resulting from the use and maintenance of said sewerage works.

Section 305:02. Admission of Industrial Wastes into the Public Sewers.

Subd. 1. Approval Required. Review and acceptance of the approving authority shall be obtained prior to the discharge into the public sewers of any wastes and waters having:

- a. A 5-day 20 degrees Centigrade biochemical-oxygen-demand (B.O.D.) greater than 300 ppm.
- b. Suspended solids containing greater than 300 ppm.

Subd. 2. Pre-treatment. Where required, in the opinion of the approving authority, to modify or eliminate wastes that are harmful to the structures, processes or operation of the sewage disposal works, the person shall provide, at his expense, such preliminary treatment or processing facilities as may be determined necessary to render his wastes acceptable for admission to the public sewers.

Subd. 3. Grease, Oil and Sand Interceptors. Grease, oil and sand interceptors shall be provided for the proper handling of liquid wastes containing grease in excessive amounts or any flammable wastes, sand and other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwellings. All interceptors shall be of a type and capacity approved by the approving authority and shall be located as to be readily and easily accessible for easy cleaning and inspection. Grease and oil interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight and equipped with easily removable covers which, when bolted in place, shall be gastight and watertight. Where installed all grease, oil and sand interceptors shall be maintained by the owner, at his expense, in continuously efficient operation at all times.

Subd. 4. Submission of Information. Plans, specifications and any other pertinent information relating to proposed preliminary treatment or processing facilities shall be submitted for approval of the approving authority prior to the start of their construction, if the effluent from such facilities is to be discharged into the public sewers.

Section 305:04. Prohibitive Discharges. No person shall discharge or cause to be discharged any storm water, ground water, roof run-off, sub-surface drainage, down spouts, yard drains, yard fountain and ponds or lawn sprays into any sanitary sewer. Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers or to a natural outlet approved by the approving authority. Unpolluted processed water may be discharged upon prior written approval of the approving authority to a storm sewer or natural outlet or into the sanitary sewer system by an indirect connection whereby such discharge is cooled, if required, and flows into the sanitary sewer at a rate not in excess of three gallons per minute, provided the waste does not contain materials or substances in suspension or solution in violation of the limits prescribed by this Section.

In cases where, and in the opinion of the approving authority, the character of the sewage from any manufacturer of industrial plant building or other premises is such that it will damage the system or cannot be treated satisfactorily in the system, the approving authority shall have the right to require such user to dispose of such waste otherwise and prevent it from entering the system.

No person shall discharge or cause to be discharged either directly or indirectly any of the following described substances, materials, waters or waste:

- (1) Any liquid having a temperature higher than 150 degrees Fahrenheit (65 degrees Centigrade).
- (2) Any water or wastes which contain wax, grease or oil, plastic or other substance that will solidify or become discernibly viscous at temperatures between 32 degrees to 150 degrees Fahrenheit.
- (3) Any solids, liquids or gases which by themselves or by interaction with other substances may cause fire or explosion hazards, or in any other way be injurious to persons, property, or the operator of the sewage disposal works.
- (4) Any solids, slurries or viscous substances of such character as to be capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works, such as ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshlings, entrails, lime slurry, lime residues, chemical residues, paint residues, or bulk solids.
- (5) Any garbage that has not been properly comminuted or shredded. If properly comminuted or shredded, then it may be accepted under provisions established in Section 305:00.
- (6) Any noxious or malodorous substance, which either singly or by interaction with other substances is capable of causing objectionable odors, or hazard to life; or forms solids in concentrations exceeding limits established in Section 305:02 or creates any other condition deleterious to structures or treatment processes; or requires unusual provisions, alteration, or expense to handle such materials.

- (7) Any waters or wastes having a pH lower than 5.5 or higher than 10.5 or having any corrosive property capable of causing damage or hazards to structures, equipment or personnel.
- (8) Any wastes or waters containing suspended or dissolved solids of such character and quantity that unusual attention or expense is required to handle such materials at the sewage treatment facilities.
- (9) Any waters or wastes containing a toxic or poisonous substance such as plating or heat treating wastes in sufficient quantity to injure or interfere with any sewage treatment process, to constitute a hazard to humans or animals, or to create any hazard in the receiving waters of the sewage treatment facilities.
- (10) Any cyanide greater than 1.0 part per million, as CN.
- (11) Any hexavalent chromium greater than 1.0 part per million.
- (12) Any trivalent chromium greater than 10 parts per million.
- (13) Any copper greater than 1.0 part per million.
- (14) Any nickel greater than 1.0 part per million.
- (15) Any cadmium greater than 1.0 part per million.
- (16) Any zinc greater than 1.0 part per million.
- (17) Any phenols greater than 12 parts per million.
- (18) Any iron greater than 5 parts per million.
- (19) Any tin greater than 1.0 parts per million.
- (20) Any radioactive wastes greater than allowable releases as specified by current United States Bureau of Standards Handbooks dealing with the handling and release of radioactivity.

Except in quantities, or concentrations, or with provisions as stipulated herein, it shall be unlawful for any person corporation or individual to discharge waters or wastes to the sanitary sewer containing:

- (1) Free or emulsified oil and grease exceeding on analysis an average of 100 parts per million (833 pounds per million gallons) of either or both of combinations of free or emulsified oil and grease, if, in the opinion of the approving authority, it appears probable that such wastes:
 - a. Can deposit grease or oil in the sewer lines in such manner to clog the sewers.
 - b. Are not amenable to bacterial action and will therefore pass to the receiving waters without being affected by normal sewage treatment processes, or
 - c. Can have deleterious effects on the treatment process due to the excessive quantities.
- (2) Cyanides or cyanogen compounds capable of liberating hydrocyanic gas on acidification in excess of one-half (0.5) part per million by weight as CN in the wastes from any outlet into the public sewers.

(3) Materials which exert or cause:

- a. unusual concentrations of solids or composition; as for example, in total suspended solids of inert nature (such as Fuller's Earth) and/or in total dissolved solids (such as sodium chloride, or sodium sulfate),
- b. excessive discoloration,
- c. unusual biochemical oxygen demand or an immediate oxygen demand,
- d. high hydrogen sulfide content, or
- e. unusual flow and concentration shall be pretreated to a concentration acceptable to the city, if such wastes can (i) cause damage to collection facilities, (ii) impair the processes, (iii) incur treatment cost exceeding those of normal sewage, or (iv) render the water unfit for stream disposal or industrial use. Where discharge of such wastes to the sanitary sewer are not properly pretreated or otherwise corrected the approving authority may (i) reject the wastes or terminate the service of water and/or sanitary sewer, (ii) require control of the quantities and rates of discharge of such wastes, or (iii) require payment of surcharges for excessive cost for treatment provided such wastes are amenable to treatment by normal sewage plant facilities operated by the city.

Section 305:06. Control of Admissible Wastes. Within 120 days after passage of this ordinance, any person desiring to deposit or discharge any industrial waste mixture into the sewers or sewer works of the city or any sewer connected therewith, or who is now so doing, shall make written application to the approving authority for a permit therefor.

Subd. 1. Control Chambers. Within six months from the date of passage of this ordinance any person discharging or desiring to discharge an industrial waste mixture into the sewers or sewer works of the city, or any sewer connected therewith, shall provide and maintain in a suitable accessible position on his premises, or such premises occupied by him, an inspection chamber or manhole near the outlet of each sewer, drain, pipe, channel or connection which communicates with any sewer or sewer works of the city or any sewer connected therewith. Each such manhole or inspection chamber shall be of such design and construction which will prevent infiltration by ground and surface waters or introduction of slugs of solids by installation of screens with maximum openings of one inch but of sufficient fineness to prevent the entrance of objectionable slugs of solids to the sanitary sewage system and shall be so maintained by persons discharging wastes so that any authorized representative or employee of the city may readily and safely measure the volume and obtain samples of the flow at all times. Plans for the construction of control manholes or inspection chambers, including such flow measuring devices as may or may not be required, shall be approved by the approving authority prior to the beginning of construction.

Subd. 2. Measurement of Flow. The water consumption during the previous year, as determined from the meter records of the Water Department, shall be the valid basis for computing the sewage flow, unless actual sewage flow is measured by a recording meter of a type approved by the approving authority. The owner shall install and maintain such device in proper condition to accurately measure such flow. Upon failure to do so, the water consumption shall be the basis for determining the applicability of this ordinance and computing the industrial service charge.

When water is contained in a product or is evaporated or is discharged as polluted waste in an uncontaminated condition to surface drainage, an application may be made for a reduction in the volume of waste discharge to the public sewer, provided supporting data satisfactory to the approving authority is furnished. This data shall include a flow diagram, destination of water supply and/or waste, supported by sub-metering data installed on such process piping at the expense of the private owner.

Subd. 3. Sampling of Wastes. Sampling of the effluent of waste discharges may be accomplished manually or by the use of mechanical equipment to obtain a twenty-four (24) hour composite sample which would be representative of the total effluent. Samples shall be taken at intervals to be established by the contractual agreement between the owner and the approving authority, or at such intervals as determined by the approving authority as necessary to maintain a control over the discharges from the establishment. The method used in the examination of all bacteriological wastes to determine suspended solids, B.O.D. and prohibited wastes shall be those set forth in Section 305:00.

Section 305:08. Powers and Authority of Enforcing Agents. The approving authority shall be permitted to gain access to such properties as may be necessary for the purpose of inspection, observation, measurement, sampling and testing, in accordance with provisions of these regulations. Any person found to be violating any provision of this ordinance shall be served by the City with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. Any person who shall continue any violation beyond the time limit shall be disconnected from the sanitary sewer and/or water service after notice and hearing thereon. Such disconnection and any reconnection would be at the total expense of the customer.

Where acids and chemicals damaging the sewer lines or treatment processes are released to the sewer causing rapid deterioration of these structures or interfering with proper treatment of sewage, the approving authority is authorized to immediately terminate services by such measures as are necessary to protect the facilities.

Any person, firm or corporation violating any of the provisions of this ordinance shall be guilty of a misdemeanor and, upon conviction, shall suffer the appropriate penalty, as set forth in the ordinances of the City of Foley. Each day of each such violation shall be deemed a separate offense. Any person violating any of the provisions of this ordinance shall become liable to the City of any expense, loss or damage occasioned by the City by reason of such violation.

Section 305:10. Protection from Damage. No unauthorized person shall maliciously, willfully or negligibly break, damage, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the municipal sewerage works. Any person violating this provision shall be subject to immediate arrest.

Section 305:12. Industrial Waste Charges. Persons or owners discharging wastes prohibited in Section 305:04, other than excessive B.O.D., or suspended solids, but having a concentration for a duration of fifteen (15) minutes greater than four (4) times that of "normal" sewage as measured by suspended solids and bio-chemical oxygen demand (B.O.D.) and/or a concentration during a twenty-four (24) hour period average of suspended solids or B.O.D. content in excess of "normal" domestic sewage or having a total wastewater flow in excess of 20,000 gallons during a twenty-four (24) hour period shall be charged on the basis of the following components:

- (1) Operation and Maintenance Charge. As its proportionate share of the expenses incurred by the city in the operation and maintenance of the city disposal facilities, the persons will pay to the city a monthly sum equal to the total of the two sums computed by the application of the following formulas and sampling procedures established by Section 305:06.
 - a. Persons total annual pounds B.O.D. divided by the total annual pounds B.O.D. at the city sewage treatment facilities; the result so obtained to be multiplied by O & M cost of the sewage treatment facilities, and the result so obtained multiplied by one-twenty fourth (1/24th).
 - b. Persons total annual gallons of sewage divided by the total annual gallons of sewage at the city sewage treatment facilities; the result so obtained to be multiplied by O & M cost of the city sewage treatment facilities and the result so obtained multiplied by one-twenty-fourth (1/24th).
- (2) Capital Contributions. As a capital contribution the person shall pay a monthly basis for a period not to exceed fifteen (15) years, a sum computed by the application of the following formula:

Persons total annual gallons of sewage divided by the total annual gallons of sewage at the city sewage treatment facilities, the result so obtained to be multiplied by \$5,754.00. (\$5,754.00 represents the annual rate of amortization of the city's investment to date in the sewage treatment facilities.) The amount so determined will be divided by twelve (12) to determine the monthly capital contribution.

- (3) **Sewer Use Charge.** For the use, maintenance, repair, reconstruction, change or alteration of the city sewers, the person shall pay an amount equal to five (5) percent of the monthly charge based upon the sum of the contributions to amortization of capital investments and operation and maintenance of city treatment facilities.
- (4) **Participation in Future Construction Costs.** The annual rate of capital cost amortization for all improvements necessary to increase the degree of treatment of the sewage at the city sewage treatment facilities, where such improvements are required to meet standards of effluent quality and purity established by the Minnesota Pollution Control Agency, will be apportioned as established in Section 305:12(2) and extend for a period not to exceed the amortization period of such improvements.

Section 305:14. Billing, Penalties.

Subd. 1. Billing Practice. Industrial waste charges provided for in this ordinance shall be included as a separate item on the regular bill for water and shall be paid quarterly in accordance with the existing practices. Charges shall be paid at the same time that the water charges of the person become due and payment for water services shall not be accepted without payment also of the sewer service charge.

Subd. 2. Penalty for Failure to Pay Bills. Failure to pay quarterly bills for the established sewer charge for industrial waste when due or repeated discharge of prohibited waste to the sanitary sewer shall be sufficient cause to disconnect any and all services to the water and/or sanitary sewer mains of the City of Foley after notice and hearing thereon and the same penalties and charges now or hereafter provided for by the ordinances of the City of Foley for failure to pay the bill for water service when due shall be applicable in like manner in case of failure to pay the established charge for industrial waste discharged to the sanitary sewer mains as established in Section 305:12.

Amended Interim Industrial Wastewater Discharge Permit

For POUCHTEC INDUSTRIES

THIS AMENDED INTERIM PERMIT is made and entered into as of the 2nd day of August, 2016 by and between the City of Foley (hereinafter referred to as the "City"), a municipal corporation organized and existing under the laws of the State of Minnesota; and PouchTec Industries, LLC, a Delaware limited liability company with its headquarters at City of Foley, Benton County, Minnesota, (hereafter referred to in this Amended Interim Permit as "PouchTec").

The City is the owner and operator of a municipal wastewater treatment facility located within the corporate city limits on property owned by the City in Benton County of the State of Minnesota, which has a controlled discharge to Stoney Brook. PouchTec is the owner and operator of a food products in flexible packaging plant within the Foley city limits, which discharges wastewater to the City's municipal sanitary sewer system and ultimately to the wastewater treatment facility.

The City has a National Pollution Discharge Elimination System (NPDES) permit for the City's municipal wastewater treatment facility, No. MN 0023451, as part of a National and State Disposal Permit Program administered by the Minnesota Pollution Control Agency under the Clean Water Act. Limitations on discharges from the Foley wastewater treatment plant are defined in the NPDES permit. The NPDES permit also requires the City to control users as set forth in Chapter 6, Part 1.13 of the NPDES permit.

The City issued PouchTec an interim discharge permit in 2011. PouchTec has continued to discharge wastewater since 2011, and no material issues have been identified with respect to such discharges since September, 2011. The 2011 permit adequately addressed the wastewater discharge concerns related to PouchTec's current facility.

PouchTec wishes to expand its current facility, which necessitates this Amended Interim Permit with revised discharge limits. PouchTec proposes to develop the first phase as 10,800 square feet of material handling space ("Phase I") and develop the second phase as 37,800 square feet of warehouse and production space ("Phase II"). The City and PouchTec acknowledge that the City's NPDES permit for its wastewater treatment facility expires on February 28, 2017. The interim discharge limits and monitoring requirements imposed by this Amended Interim Permit may be altered as a consequence of the renewal of the City's NPDES permit. The City believes that discharge limits imposed by this Amended Interim Permit will not cause pass-through or interference with the function of the City's wastewater treatment facilities. The limits are derived from review of data for a two-week testing period, review of available historical data, review of the wastewater

treatment facility flow and loading design and permitted capacity, and anticipated flow estimates (after the Phase II expansion) provided by PouchTec.

The City hereby authorizes PouchTec to continue to discharge wastewater to the public sewer system from the PouchTec facility located at 347 Glen Street in Foley, Minnesota, in accordance with the amended interim discharge limits, monitoring requirements and other conditions set forth in this Amended Interim Permit. The conditions of this Amended Interim Permit supersede any previous arrangements, permits, or requirements of the City pertaining to discharges from PouchTec to the public sewer system for industrial wastewater.

As defined in the City's Ordinance, wastewater generated by PouchTec is Industrial Waste. The City has the authority to require pretreatment of such wastes and may require dischargers of such wastes to be responsible for costs incurred by the City as a result of their discharge.

A. Permit Term

This Amended Interim Permit shall be effective upon execution by both parties and shall continue until December 31, 2018 or until the NPDES permit is re-issued. The City, in its sole discretion, may amend or extend this Amended Interim Permit. The City, in its sole discretion, may also grant a more permanent permit to PouchTec prior to the expiration of this Amended Interim Permit. To the extent this Amended Interim Permit is not amended or revoked, or a permanent permit issued before December 31, 2018, the terms of this Amended Interim Permit shall control any discharge by PouchTec after December 31, 2018.

B. Discharge Limits

1. Any discharge from PouchTec is subject to the following limitations where it enters the public sewer system.

<u>Discharge Parameter</u>	<u>Average Monthly Limit</u>	<u>Maximum Weekly Limit</u>
Total Daily Flow (Gal/day)	25,000	30,000
CBOD (lbs/day)	120	135
TSS (lbs/day)	84	94
TP (lbs/day)	1.5	1.7

2. In the event that PouchTec does not complete Phase II by December 31, 2018, discharge limitations shall be reduced to the following:

<u>Discharge Parameter</u>	<u>Average Monthly Limit</u>	<u>Maximum Weekly Limit</u>
Total Daily Flow (Gal/day)	22,000	28,000
CBOD (lbs/day)	98	124
TSS (lbs/day)	74	89
TP (lbs/day)	1.3	1.7

3. PouchTec has requested higher limits for CBOD (125 monthly and 180 weekly) and TSS (94 weekly and 110 monthly). However, the City is can only approve those higher limits once additional monitoring information has been collected and it has been determined that the City's municipal sanitary sewer system can appropriately accommodate such increases. The City must ensure that any limit granted to PouchTec is consistent with the City's NPDES permit and provides a margin of capacity for the rest of the City of Foley. The City agrees to revisit the limits with PouchTec after collecting six months of additional monitoring information in coordination with PouchTec.
4. pH shall not be less than 5.5 or more than 10.5 at any time.
5. Discharge shall be limited to process water. Non-contact cooling water shall not be discharged to the City sewer system. Discharge of excess clear water for the purpose of dilution is prohibited.
6. There shall be no discharge of visible foam in other than trace amounts.
7. The discharge shall not contain oil or other substances in amounts sufficient to create a visible color film on the surface of the wastewater.
8. PouchTec shall comply with all applicable Minnesota Pollution Control Agency and U. S. Environmental Protection Agency standards and requirements relating to the discharge, including the pretreatment requirements of 40 C.F.R. 403.5 (a) (1) and (b) which are summarized as follows:
 - a. PouchTec shall not introduce into the City's municipal wastewater treatment facility any pollutant(s), which cause pass through or interference with the function of the City's wastewater treatment facilities.
 - b. The following pollutants shall not be introduced into the City's municipal wastewater collection system or wastewater treatment facility:
 - (1) Pollutants which create a fire or explosion hazard;

- (2) Pollutants which will cause corrosive structural damage to the municipal wastewater collection system or wastewater treatment facility, but in no case discharges with a pH lower than 5.5;
- (3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the municipal wastewater collection or wastewater treatment facility;
- (4) Any pollutant, including oxygen demanding pollutants (CBOD, etc.) released in discharge at a flow rate and/or pollutant concentration which will cause interference with the municipal wastewater treatment facility;
- (5) Heat in amounts which will inhibit biological activity in the municipal wastewater treatment facility resulting in interference, but in no case heat in such quantities that the temperature at the municipal wastewater treatment facility exceeds 40 degrees C (104 degrees F) unless the Minnesota Pollution Control Agency upon request of the City approves alternate temperature limits.

C. Variations

In the event that PouchTec increases its production or modifies its industrial process in such a way that the quantity or strength of its waste will exceed the discharge limitations of this Amended Interim Permit, PouchTec must apply for a discharge permit modification at least 60 days prior to the increased production or industrial process modification. PouchTec is prohibited from increasing production or modifying the industrial process until the modified discharge permit is issued. The City reserves the right to deny any such request if the City's infrastructure (wastewater treatment facility, water supply system, or wastewater collection system) does not have sufficient capacity for PouchTec's proposed production, or if necessary to ensure compliance with the City's NPDES permit.

D. Monitoring

1. The City shall monitor the discharge to the public sewer system from the PouchTec facility. PouchTec shall conduct 24-hour composite sampling of the wastewater from PouchTec's facility at a minimum frequency of once per week. Sampling shall test for flow, CBOD, TSS, TP, and pH. An independent laboratory shall perform sample analysis. In the event of a violation of a wastewater parameter established in this Amended Interim Permit, the City may increase the sampling frequency. Samples shall be sent to a certified independent laboratory for analysis for the parameters set forth in this Amended Interim Permit. **A copy of the results from the certified laboratory shall be electronically mailed directly to the City within 3 days of PouchTec receiving the data.** PouchTec shall maintain the sampling results on file for a minimum of three years. The sampling shall be conducted on random representative production days. Monitoring measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. PouchTec shall be responsible for all costs, whether incurred by the City or PouchTec, associated with the setup, purchase and maintenance of the equipment and laboratory costs as necessary to

ensure compliance with this requirement. The City, at its cost, may sample more frequently than once per week.

2. A City water meter shall measure the total water volume used by PouchTec. PouchTec shall employ water meters to measure the water volume used by PouchTec in its products which is not discharged to the wastewater system. PouchTec shall be responsible for the maintenance, repair, and replacement of all such water meters. The volume of wastewater shall be based on the city water meter reading for the total volume less the volume used in products as measured by PouchTec's meters. The wastewater discharged, as determined from weekly readings of the water meters, shall be used for determining the billing quantities and the loading parameters as detailed in the discharge limitations section of this Amended Interim Permit, in addition to monitoring compliance with the flow limitation to the City sewer system.
3. The City shall have the authority to enter the PouchTec facility for the purpose of inspection, observation, sampling, measurement, testing, without prior notification. In addition the City personnel shall have complete access to the sampling equipment without prior notification.

E. Charges and Responsibilities

1. PouchTec shall be responsible for the following:
 - a. Costs for monitoring equipment necessary to comply with the City Ordinances or this Amended Interim Permit.
 - b. The costs associated with sampling and analysis of PouchTec's discharge.
 - c. The costs for additional sampling and analysis required due to violations.
 - d. All costs associated with the sewer service charges and fines as outlined in this Amended Interim Permit.
 - e. Costs for labor, materials, equipment and operation and maintenance of such equipment required to monitor, handle and treat wastewater discharged by PouchTec that is outside the discharge limits defined within this Amended Interim Permit or the limits defined by City Ordinance. Such costs shall be approved after notice to PouchTec and a hearing before the City Council.
2. The City will use operational means to get parameters as low as possible, but if chemical is needed for phosphorus removal and PouchTec has a material TP violation since the last discharge of the City's ponds, PouchTec shall reimburse the City for a reasonable and proportionate share of the costs incurred by the City to purchase and use chemicals for phosphorus removal.
3. The City shall invoice PouchTec for all charges and costs incurred by the City described in Section E.1 above. PouchTec shall pay all invoices within 30 days of

the invoice date unless another arrangement has been approved in writing by the City.

F. Violation and Violation Procedures

1. A discharge limit violation under this Amended Interim Permit is any composite sample that exceeds the maximum weekly limit or any four week average of composite samples that exceeds the average monthly limit. Each parameter that is exceeded shall be a separate violation.
2. The discharge of a waste not in compliance with the discharge limitations set forth in this Amended Interim Permit shall be considered a violation subject to the violation procedures and fines described herein. Exceedance of each parameter shall be considered a separate violation and subject to a separate fine. Each separate composite sample shall be evaluated for compliance with this Amended Interim Permit. Composite sampling shall be at a rate of no more than one per day. If any CBOD, TSS, or TP concentrations, flow volume, or pH exceeds the discharge limitations set forth in this Amended Interim Permit, PouchTec shall be subject to fines as outlined in this Amended Interim Permit.
3. In the event the flow meter or any of the sampling equipment is out of service for any length of time, once PouchTec is aware of the condition, PouchTec shall report the condition to the City immediately via telephone. If the sampling equipment remains out of service for longer than 24 hours, the City may elect to install temporary equipment, at PouchTec's cost, until the corrections have been made.
4. PouchTec agrees to indemnify the City for any fines or assessments made to or paid by the City of Foley to the MPCA or any other regulatory agency as a result of flows or loads from PouchTec in excess of the limits of this Amended Interim Permit, and such fines or assessments shall be assessed by the City against PouchTec. This provision does not prevent the City from collecting additional fines for violations of this Amended Interim Permit pursuant to City Ordinance.

G. Accidental Discharges

PouchTec shall notify the City immediately upon having a slug or accidental discharge of substances or wastewater in violation of this Amended Interim Permit in order to enable counter measures to be taken by the City to minimize damage to the treatment system and receiving waters. Such notification shall not relieve PouchTec of liability for any expense, loss or damage to the treatment system or treatment process, or for any imposed action by the MPCA or EPA for such discharge. A detailed written statement by PouchTec describing the causes of the accidental discharge and the measures taken to prevent any further occurrence shall be submitted to the City within (15) days of the date of occurrence.

The City shall notify PouchTec promptly upon learning of a violation of the City's NPDES Permit.

H. Suspension or Revocation of Permit

1. The City may instruct PouchTec to proportionally reduce their wastewater discharge to the City system when such suspension is deemed necessary in order to keep the wastewater treatment facility in compliance with their NPDES permit, to protect the wastewater treatment facility, or to protect the wastewater collection system. Any such instruction shall be in writing. During this non-use or partial use period, the payments to the City shall be pro-rated based on the actual use.
2. The City may suspend this Amended Interim Permit and wastewater service when PouchTec's discharge violates this Amended Interim Permit and such action is deemed necessary by the City in order to keep the wastewater treatment facility in compliance with their NPDES permit, to protect the wastewater treatment facility, or to protect the wastewater collection system, or as described in City Ordinance. Suspension shall take effect upon written notice by the City.
3. The City may revoke this Amended Interim Permit and discontinue wastewater treatment service, if after a prior suspension, PouchTec fails to meet discharge limits as follows:
 - a. A violation of any discharge in six consecutive weeks; the violations need not be for the same parameter to be considered consecutive.
 - b. Two consecutive weeks with a violation that exceeds 150% of any discharge limit; the violations need not be for the same parameter to be considered consecutive.
4. The City may revoke this Amended Interim Permit and discontinue wastewater treatment service if PouchTec fails to factually report the wastewater constituents and characteristics of its discharge; fails to report process changes that may result in an increase in the volume of wastewater, an increase in the pollutant loadings, or a change in characteristics (such as pH), where such change may result in parameters being outside the limits set forth herein; refuses reasonable access to its premises for the purpose of inspection or monitoring; or violates conditions of this Amended Interim Permit, City Ordinance, or applicable State and Federal regulations. This Amended Interim Permit may be revoked by the City upon written notice to PouchTec and a hearing before the Foley City Council. A written report from City staff and consultants shall be provided to the City Council and PouchTec prior to any termination hearing. At any termination hearing, PouchTec shall have the right to address the City Council.

I. Notification of Violation

In the event of a violation of this Amended Interim Permit and upon determination of the violation by the City, the City shall notify PouchTec by email or telephone, and in writing, stating the nature of the violation. The written notification shall include the amount of the fine for the violation. Failure to provide notice does not absolve PouchTec of liability or penalties.

J. Modification

The terms and conditions of this Amended Interim Permit may be subject to modification by the City, in its sole discretion, during the term of this Amended Interim Permit. The City shall notify PouchTec of any change in this Amended Interim Permit at least 30 days prior to the effective date of change.

K. Severability

If any provision, paragraph, work, section, or article of this Amended Interim Permit is held unconstitutional or invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, works, sections, and articles shall not be affected and shall continue in full force and effect.

L. General Conditions

1. PouchTec shall not knowingly make any false statement, representation or certification in any record, report, or plan required to be submitted to the City under this Amended Interim Permit.
2. This Amended Interim Permit shall not release PouchTec from any liability, or duty or penalty imposed by Minnesota or federal statutes, regulations rules or ordinances. PouchTec is required to comply with the general pretreatment regulations identified in 40 C.F.R. Part 403. Nothing in this Amended Interim Permit waives the right of the U.S. EPA or the State of Minnesota from commencing appropriate enforcement action to correct any violation of the general pretreatment regulations or of this Amended Interim Permit.
3. This Amended Interim Permit shall transfer in its entirety to any individual or entity upon purchase of PouchTec by said individual or entity.

M. Sewer Service Charges

Wastewater Volume Charge:

Per City Ordinance
(Currently \$5.70/1000 gals)

Surcharges:

PouchTec shall not be subject to surcharges under this Amended Interim Permit, but the City reserves the right to impose waste surcharges in subsequent permits.

N. Fines For Violations

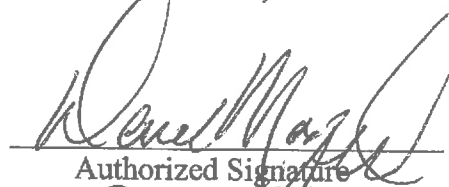
For each separate violation of this Amended Interim Permit, PouchTec may be fined by the City an amount up to \$100 for the first violation of a Maximum Weekly Limit parameter and \$250 for a second violation of a Maximum Weekly Limit parameter in a consecutive week and all subsequent consecutive weeks of such violation. Violations need not be for the same parameter to be considered consecutive. In addition, PouchTec may be fined \$500 for a violation of the Average Monthly Limit parameters set forth in this Amended Interim Permit.

O. State/Federal Enforcement

1. Nothing in this Amended Interim Permit prevents the U.S. Environmental Protection Agency or the State of Minnesota from taking appropriate enforcement action against PouchTec if the City fails to commence appropriate enforcement of Amended Interim Permit, interference or pass through violations.


Dated: Aug. 10, 2016

CITY OF FOLEY, MN


Authorized Signature
Dave Morrison
Name

Mayor
Title

POUCHTEC INDUSTRIES, LLC


Authorized Signature
Robert C. Jones
Name

President
Title

Appendix E

Historical Influent Flow and Load Summary

Table 1 – 2014 Influent Flows and Loads Summary

Month	2014 Birch Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	---	---	---	---	---	---
February	---	---	---	---	---	---
March	---	---	---	---	---	---
April	---	---	---	---	---	---
May	---	---	---	---	---	---
June	---	---	---	---	---	---
July	0.188	0.147	0.107	91.6	97.1	4.7
August	0.106	0.127	0.163	205.4	314.9	4.2
September	0.11	0.137	0.166	ND	ND	ND
October	0.096	0.119	0.135	ND	ND	ND
November	0.055	0.087	0.122	173.6	276.1	4.8
December	0.061	0.094	0.134	184.2	74.9	4.8
Yearly Avg:	---	0.118	---	163.7	190.8	4.6
Peak Month:	---	0.147	---	---	---	---
Min Sample:	0.055	---	---	91.6	74.9	4.2
Max Sample:	---	---	0.166	205.4	314.9	4.8

Month	2014 Golf Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	---	---	---	---	---	---
February	---	---	---	---	---	---
March	---	---	---	---	---	---
April	---	---	---	---	---	---
May	---	---	---	---	---	---
June	---	---	---	---	---	---
July	0.148	0.184	0.256	83.9	167.3	5.7
August	0.131	0.167	0.275	374.4	201.7	8.1
September	0.141	0.177	0.241	290.3	118.2	6.6
October	0.132	0.153	0.173	297.1	164.5	8.7
November	0.122	0.240	0.272	249.9	166.7	9.0
December	0.137	0.163	0.232	282.0	205.6	10.2
Yearly Avg:	---	0.181	---	262.9	170.7	8.0
Peak Month:	---	0.240	---	---	---	---
Min Sample:	0.122	---	---	83.9	118.2	5.7
Max Sample:	---	---	0.275	374.4	205.6	10.2

Table 1 (Continued) – 2014 Influent Flows and Loads Summary

Month	2014 Combined Flow and Loads					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	---	---	---	---	---	---
February	---	---	---	---	---	---
March	---	---	---	---	---	---
April	---	---	---	---	---	---
May	---	---	---	---	---	---
June	---	---	---	---	---	---
July	0.254	0.331	0.444	423.4	442.9	13.8
August	0.242	0.294	0.415	466.2	280.5	15.0
September	0.258	0.314	0.407	538.1	405.7	13.9
October	0.232	0.272	0.303	433.8	382.3	16.1
November	0.190	0.240	0.272	533.6	496.2	17.4
December	0.213	0.257	0.353	665.8	539.2	18.0
Yearly Avg:	---	0.285	---	510.1	424.5	15.7
Peak Month:	---	0.331	---	---	---	---
Min Sample:	0.19	---	---	423.4	280.5	13.8
Max Sample:	---	---	0.444	665.8	539.2	18.0

Table 2 – 2015 Influent Flows and Loads Summary

Month	2015 Birch Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.050	0.069	0.098	154.8	170.1	3.8
February	0.064	0.079	0.109	160.3	199.9	4.7
March	0.088	0.107	0.124	208.4	250.3	6.3
April	0.081	0.107	0.126	263.9	282.8	5.7
May	0.088	0.118	0.269	354.1	691.5	6.9
June	0.073	0.118	0.278	249.4	283.8	3.8
July	0.044	0.149	0.252	281.6	118.9	7.1
August	0.116	0.132	0.148	229.4	136.4	5.5
September	0.106	0.119	0.131	286.8	109.5	5.6
October	0.100	0.120	0.153	287.0	136.1	5.8
November	0.081	0.121	0.189	296.5	111.3	6.2
December	0.110	0.134	0.151	326.2	204.5	4.9
Yearly Avg:	---	0.114	---	284.6	136.1	5.9
Peak Month:	---	0.149	---	---	---	---
Min Sample:	0.044	---	---	229.4	109.5	4.9
Max Sample:	---	---	0.278	326.2	204.5	7.1

Table 2 (Continued) – 2015 Influent Flows and Loads Summary

Month	2015 Golf Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.139	0.155	0.172	383.3	235.6	10.1
February	0.132	0.157	0.185	273.5	182.4	11.4
March	0.135	0.167	0.204	325.2	246.0	11.1
April	0.154	0.176	0.198	401.8	256.5	12.4
May	0.151	0.226	0.819	616.7	470.8	22.9
June	0.183	0.243	0.879	472.4	248.3	6.7
July	0.173	0.289	0.686	428.1	244.0	13.5
August	0.154	0.186	0.229	370.1	245.6	8.4
September	0.126	0.156	0.175	282.6	172.1	9.1
October	0.127	0.153	0.300	649.4	405.7	8.9
November	0.144	0.206	0.689	348.8	128.1	12.1
December	0.148	0.148	0.148	396.7	253.2	8.0
Yearly Avg:	---	0.188	---	412.6	241.5	10.0
Peak Month:	---	0.289	---	---	---	---
Min Sample:	0.126	---	---	282.6	128.1	8.0
Max Sample:	---	---	0.879	649.4	405.7	13.5

Month	2015 Combined Flow and Loads					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.197	0.225	0.261	538.1	405.7	13.9
February	0.196	0.236	0.279	433.8	382.3	16.1
March	0.241	0.274	0.313	533.6	496.2	17.4
April	0.236	0.283	0.320	665.8	539.2	18.0
May	0.244	0.343	1.087	970.8	1,162.3	29.8
June	0.264	0.361	1.157	721.8	532.1	10.5
July	0.217	0.438	0.937	709.7	362.9	20.6
August	0.274	0.318	0.358	599.6	382.0	13.9
September	0.237	0.275	0.303	569.4	281.6	14.6
October	0.233	0.273	0.453	936.4	541.8	14.7
November	0.234	0.327	0.878	645.3	239.5	18.4
December	0.262	0.322	0.352	722.9	457.7	13.0
Yearly Avg:	---	0.306	---	697.2	377.6	15.8
Peak Month:	---	0.438	---	---	---	---
Min Sample:	0.196	---	---	569.4	239.5	13.0
Max Sample:	---	---	1.157	936.4	541.8	20.6

Table 3 – 2016 Influent Flows and Loads Summary

Month	2016 Birch Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.094	0.112	0.135	244.5	373.2	5.8
February	0.090	0.109	0.140	387.5	142.0	6.6
March	0.000	0.087	0.146	205.0	119.2	4.1
April	0.000	0.000	0.000	0.0	0.0	0.0
May	0.000	0.046	0.124	83.1	51.1	2.4
June	0.075	0.114	0.148	206.3	127.2	6.8
July	0.066	0.142	0.271	258.1	159.7	9.6
August	0.083	0.132	0.301	240.8	149.4	10.0
September	0.134	0.330	0.457	606.0	376.9	27.9
October	0.082	0.155	1.133	300.7	114.8	6.0
November	0.084	0.190	1.434	575.8	346.7	6.7
December	0.080	0.112	0.154	195.4	199.7	4.0
Yearly Avg:	---	0.127	---	362.8	224.5	10.7
Peak Month:	---	0.330	---	---	---	---
Min Sample:	0	---	---	195.4	114.8	4.0
Max Sample:	---	---	1.434	606.0	376.9	27.9

Month	2016 Golf Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.144	0.173	0.194	435.6	264.1	10.0
February	0.137	0.174	0.460	391.2	171.3	8.8
March	0.149	0.224	0.407	662.1	507.6	12.0
April	0.293	0.337	0.402	630.6	442.2	18.2
May	0.143	0.251	0.352	471.6	331.3	15.6
June	0.146	0.195	0.447	368.3	259.3	13.8
July	0.151	0.260	1.134	493.2	347.8	20.5
August	0.175	0.259	1.002	493.3	348.5	22.6
September	0.000	0.068	0.360	129.7	91.8	6.5
October	0.169	0.196	0.253	372.1	133.9	6.7
November	0.150	0.191	0.308	382.3	164.3	8.0
December	0.159	0.159	0.159	320.8	312.5	7.7
Yearly Avg:	---	0.207	---	365.2	233.1	12.0
Peak Month:	---	0.337	---	---	---	---
Min Sample:	0	---	---	129.7	91.8	6.5
Max Sample:	---	---	1.134	493.3	348.5	22.6

Table 3 (Continued) – 2016 Influent Flows and Loads Summary

Month	2016 Combined Flow and Loads					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.252	0.285	0.320	680.1	637.3	15.7
February	0.231	0.283	0.600	778.7	313.3	15.4
March	0.256	0.306	0.407	867.0	626.8	16.1
April	0.293	0.337	0.402	630.6	442.2	18.2
May	0.218	0.297	0.358	554.7	382.4	18.0
June	0.221	0.309	0.587	574.6	386.5	20.6
July	0.217	0.402	1.405	751.3	507.5	30.2
August	0.258	0.390	1.303	734.1	497.9	32.6
September	0.348	0.397	0.548	735.7	468.7	34.4
October	0.266	0.350	1.315	672.8	248.7	12.7
November	0.252	0.382	1.698	958.0	511.0	14.6
December	0.240	0.309	0.374	516.1	512.2	11.6
Yearly Avg:	---	0.337	---	728.0	457.7	22.7
Peak Month:	---	0.402	---	---	---	---
Min Sample:	0.217	---	---	516.1	248.7	11.6
Max Sample:	---	---	1.698	958.0	512.2	34.4

Table 4 – 2017 Influent Flows and Loads Summary

Month	2017 Birch Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.071	0.093	0.114	228.7	289.3	3.5
February	0.098	0.152	1.125	360.5	296.4	5.6
March	0.109	0.127	0.149	237.3	148.7	4.2
April	0.117	0.132	0.174	283.8	146.7	6.3
May	0.124	0.157	0.275	249.2	68.2	8.0
June	0.102	0.117	0.136	196.6	115.6	5.2
July	0.064	0.106	0.158	173.1	383.1	2.7
August	---	---	---	---	---	---
September	---	---	---	---	---	---
October	---	---	---	---	---	---
November	---	---	---	---	---	---
December	---	---	---	---	---	---
Yearly Avg:	---	0.126	---	173.1	383.1	2.7
Peak Month:	---	0.157	---	---	---	---
Min Sample:	0.064	---	---	173.1	383.1	2.7
Max Sample:	---	---	1.125	173.1	383.1	2.7

Table 4 (Continued) – 2017 Influent Flows and Loads Summary

Month	2017 Golf Pond Flow and Load					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.146	0.179	0.207	336.1	1,108.7	8.4
February	0.145	0.169	0.199	371.5	1,271.5	9.5
March	0.162	0.185	0.221	352.2	227.5	8.9
April	0.169	0.214	0.312	309.2	440.9	14.5
May	0.184	0.287	0.612	643.9	316.0	12.4
June	0.143	0.180	0.221	333.5	185.0	6.7
July	0.135	0.175	0.255	210.0	208.3	5.4
August	---	---	---	---	---	---
September	---	---	---	---	---	---
October	---	---	---	---	---	---
November	---	---	---	---	---	---
December	---	---	---	---	---	---
Yearly Avg:	---	0.198	---	210.0	208.3	5.4
Peak Month:	---	0.287	---	---	---	---
Min Sample:	0.135	---	---	210.0	208.3	5.4
Max Sample:	---	---	0.612	210.0	208.3	5.4

Month	2017 Combined Flow and Loads					
	Flow (mgd)			CBOD ₅ (lb/day)	TSS (lb/day)	P (lb/day)
	Daily Min	Mo. Avg	Daily Max	Mo. Avg	Mo. Avg	Mo. Avg
January	0.239	0.272	0.309	564.8	1,398.1	11.9
February	0.245	0.321	1.285	731.9	1,567.8	15.0
March	0.281	0.312	0.367	589.5	376.2	13.1
April	0.292	0.346	0.483	592.9	587.6	20.8
May	0.309	0.444	0.887	893.0	384.1	20.4
June	0.245	0.296	0.352	530.1	300.5	11.9
July	0.199	0.281	0.401	383.1	330.7	8.2
August	---	---	---	---	---	---
September	---	---	---	---	---	---
October	---	---	---	---	---	---
November	---	---	---	---	---	---
December	---	---	---	---	---	---
Yearly Avg:	---	0.325	---	383.1	330.7	8.2
Peak Month:	---	0.444	---	---	---	---
Min Sample:	0.199	---	---	383.1	330.7	8.2
Max Sample:	---	---	1.285	383.1	330.7	8.2

Appendix F

MPCA Flow Determination Worksheet



Minnesota
Pollution
Control
Agency

Water Quality

Wastewater
Review and
Guidance

Design Flow and Loading Determination Guidelines for Wastewater Treatment Plants

Water/Wastewater Technical Review and Guidance/#5.20, February 2002

Contents:

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The determination of design flows and pollutant loadings is one of the most important items in the planning of a new or expanded wastewater treatment facility. A detailed analysis of existing flow conditions and the use of adequate flow estimates will determine the hydraulic and pollutant removal capacity needed to properly treat the wastewater and comply with permit conditions. It is necessary to include all contributing flow streams and pollutant loading sources in this analysis, including all residential, seasonal, institutional, commercial, industrial, inflow, infiltration, return and recycle streams and any other unique aspect of flow and pollutant contributions.

These guidelines are the recommended procedures for estimating the design flow and pollutant loading conditions, and are considered to be the minimum values necessary to assure adequate treatment facility capacity. It is expected that sound engineering judgment will be used to determine the appropriate design conditions for each individual treatment facility and that consideration will be given to impacts of decisions on upstream and downstream unit processes.

Introduction

The flow monitoring period for any particular project must record flow data during critical low as well as peak wet weather flow events. Data collected during these flow periods are used to estimate the

four flow conditions that are critical to the design and operation of wastewater treatment plants including average dry weather (ADW), average wet weather (AWW), peak hourly wet weather (PHWW), and peak instantaneous wet weather (PIWW).

The average dry weather flow is the daily average flow when the ground water is at or near normal and a runoff condition is not occurring.

Average wet weather or peak month flow is the daily average flow for the wettest 30 consecutive days for mechanical plants or for the wettest 180 consecutive days for controlled discharge pond systems. The 180 consecutive days for pond systems should be based on either the storage period from approximately November 15 through May 15 or the storage period from approximately May 15 through November 15.

The peak hourly wet weather flow is the peak flow during the peak hour of the day at a time when the ground water is high and a five-year one-hour storm event is occurring. To determine this five-year one-hour storm event for the specific project, please refer to the attached Map Number 1.

The peak instantaneous wet weather flow is the peak instantaneous flow during the day at a time when the ground water is high and a twenty-five year one-hour storm event is occurring. To determine the appropriate twenty-five year one-hour storm event, please refer to Map Number 2.





Where the Minnesota Pollution Control Agency (MPCA) determines that the above design flow considerations will not provide adequate protection to the receiving waters, facility capacity in excess of peak instantaneous wet weather flow may be required.

In cases where flow studies are over five years old, or where the consultant designing the treatment or transmission facility did not perform the flow study, a

verification of the acceptability of the flow data should be performed.

Table 1 contains a summary of the minimum recommended flow and loading conditions for only a select group of processes. Specific design parameter details for individual treatment process units shall be in accordance with Ten States Standards.

Table 1: Design Conditions Summary

Item	Design
Collection System	Must be capable of transporting all flow to the treatment facility without bypassing.
Lift Station	Must be capable of transporting all flow to the treatment facility without bypassing.
Sanitary Sewers	100 gpcd (Other flows may be approved provided adequate justification is provided. In no case will a flow of less than 75 gpcd be approved.) + 80 gpcd for seasonal visitors + 20 gpcd for out-of-town student + commercial, industrial, and other non-residential flow
Organic Loading	Minimum BOD of 0.17 #pcd plus commercial, industrial, and other non-residential flow
Organic Loading	Minimum TSS of 0.20 #pcd plus commercial, industrial, and other non-residential flow
Peak Hourly Wet Weather with new collection systems	Actual flow data; or <u>Ten States Standards</u> Figure 1, Chapter 10; or 2.5 times AWW for residential, commercial + peak hourly industrial flow
Peak Instantaneous Wet Weather with new collection systems	Actual flow data; or 2.5 times AWW for residential, commercial + peak hourly industrial flow
Flow Equalization Basin	If PHWW/ADW ≥ 3 , flow equalization must be considered. If PHWW/AWW ≥ 3 , flow equalization must be considered. If equalization is not provided, a discussion of how the facility will handle the transition in flow must be included. See page 4
Facility Piping and Pumping	PIWW
Preliminary Treatment Unit (screens, grit removal, influent filters, etc.)	PIWW
Clarifiers (surface settling rate and weir loading rate)	PHWW + recirculation flow see "Ten States Standards"
Disinfection (detention time)	PHWW see (Ten States Standards)



Design Flows

Design flow determinations shall be made from actual facility flow data to the extent possible. The probable degree of accuracy of the data shall also be evaluated. This reliability estimation should include an evaluation of the accuracy of the existing data measurement, as well as the reliability of estimates of flow reductions or contributions from infiltration and inflow. Critical data and methodology used should be discussed in the facility plan or other engineering documents. A discussion of a method to use when existing flow data is available and when it isn't available is discussed below.

Treatment Systems with New Sanitary Sewer Collection Systems

For mechanical plants, if the industrial flow varies during the day or week, the design flow should be based on the average flow on the peak day during the period when the industry or industries are operating. This condition is called "rated flow." For example, if the industry discharges 10,000 gallons over eight of the twenty-four hours, the rated flow is 30,000 gallons per day. For controlled discharge pond systems, if the industrial flow varies during the day or week, the average design flow may be based on a weekly average.

The peak hourly wet weather design flow are the sum of the average wet weather design flow for residential (full-time and seasonal), commercial and out-of-town students multiplied by a peaking factor, plus the peak hourly industrial flow. The peaking factor shall be determined in accordance with Figure 1, in Chapter 10 of Ten States Standards.

The MPCA may approve of an alternative flow design with appropriate justification. For determining the design of the collection system (including design flow), refer to Chapter 20 Design of Sewers from "Recommended Standards for Sewage Works" (Ten States Standards).

Some form of permit "control language" may be included for wastewater treatment facilities if the per capita design flow is less than what is recommended in this document. For this situation, it may be a permit violation with "no more connections" when the permitted design flow is reached. Violation of the permitted flow could result in the requirement for submittal of a report that examines the flow in comparison to the number of connections and the number of people using the system. The permittee could also be required to plan, design, and build additional treatment units upon reaching the design capacity.

Treatment Systems with Existing Sanitary Sewer Systems

For a mechanical plant, if a separate sanitary sewer system exists, the attached Table 2 should be used to determine the peak hourly wet weather flow, the peak instantaneous wet weather flow, the average dry weather flow, and the average wet weather flow.

Part A of Table 2 and Figure 1 are used to determine the peak hourly wet weather flow. The measured flow should be plotted for a twenty-four hour period when ground water is at or near normal and a runoff condition is not occurring (Curve X on Figure 1). The ground water elevation in relation to the sewer elevation should be noted. The present peak hourly dry weather flow [(1) on Figure 1 and Table 2] is peak hourly flow during the twenty-four hour period when the ground water is at or near normal and a runoff condition is not occurring. The measured flow should be plotted for a twenty-four hour period when ground water is high and a runoff condition is not occurring (Curve Y). The ground water elevation in relation to the sewer elevation should be noted. Number (2) on Figure 1 and Table 2 is the peak hourly flow during a high groundwater period for that specific area and system when a runoff condition is not occurring. This flow (2) minus the present peak hourly dry weather flow (1) is the peak hourly infiltration.

The measured flow should be plotted for a twenty-four hour period when the ground water is high and a runoff condition is not occurring (Curve Z). This should include overflow, bypasses, and emergency pumping. The amount of rainfall and its duration should be plotted on the same graph. The peak inflow is represented by the greatest distance between Curve Y and Curve Z. The present hourly flow at the point of greatest distance between Curve Y and Z [(5) on Figure 1 and Table 2] minus the present hourly flow during high ground water at the same time of day [(6) on Figure 1 and Table 2] is the peak hourly inflow. It may be necessary to adjust the measured flow based on a relationship between the data attained during a major storm event and the five-year one-hour designed storm event. Items (10) and (13) are determined through a cost effectiveness evaluation. The gpcd contribution for population increase in item (15) [also in (25), (33), and (41)] should be 100 gpcd.

Part B of the table determines the peak instantaneous wet weather flow. The present peak hourly inflow adjusted for a five-year one-hour rainfall event [see part A(8)] is subtracted from the peak hourly wet weather flow [see part



A(19)]. To this number, add the present peak hourly inflow adjusted for a twenty-five year one-hour storm event. The resulting number is the peak instantaneous wet weather flow.

Part C of Table 2 determines the average dry weather flow. The present average dry weather flow (24) is the average flow received over a twenty-four hour period when the ground water is at or near normal and a runoff condition is not occurring. If the industrial flow varies during the day or week, the present average dry weather flow should be based on the average flow of the peak day during the period when the industry or industries are operating (rated flow). This also applies to the average flow from industrial increases.

Part D of the table determines the thirty-day average wet weather design flow. The average infiltration and inflow after rehabilitation (where rehabilitation is cost effective) is the wettest thirty-day average. The amount of infiltration after rehabilitation averaged over the thirty wettest days should be the same or nearly the same as the peak infiltration after rehabilitation. This is due to the fact that the ground water could stay high for a fairly extended period of time. The amount of inflow after rehabilitation averaged over the thirty wettest days depends on the type of sources, their location, the amount of rainfall that affects the source, etc.

Part E of Table 2 correlates all related information that can impact the degree of accuracy of the determination of design flows. It is recommended that a minimum of six months of accurate data be recorded. Minnesota Rules 7077.0150 subp. 2(b) requires a minimum of 30 consecutive days of actual flow monitoring. Data associated with the critical peak wet weather flow events for a sustained wet weather period are essential for accurate estimation of design flows. Critical peak wet weather flow events typically occur in the spring (March-June) and must include the condition of high ground water with inflow.

Controlled Discharge Pond Systems with Existing Sanitary Sewer Systems

The peak hourly wet weather and the peak instantaneous wet weather design flows to a pond system with an existing sanitary sewer system are arrived at in the same manner as in Parts A and B of the previous section. If the present industrial flow varies during the day or week, the present average dry weather flow (24) and (30) may be

based on a weekly average. When computing the average wet weather flow, the average infiltration after rehabilitation (31), and the average inflow after rehabilitation (32) are averages over the wettest 180 consecutive days.

Flow Equalization

This section applies to all treatment facilities except pond systems. During a period of high ground water for that area and system, if the ratio of peak hourly wet weather design flow to average wet weather design flow [which is (19) divided by (37)] is three or more, flow equalization shall be evaluated. When the ratio is three or more and flow equalization is not employed, an explanation must be included outlining how the plant will handle this transition from average wet weather design flow to peak hourly wet weather design flow.

During a normal ground water period, if the ratio of the peak hourly design flow during the five-year one-hour storm event $[(1)+(14)+(15)+(17)+(18)]$ to the average dry weather design flow (29) is three or more, flow equalization shall be evaluated. When the ratio is three or more and flow equalization is not employed, an explanation must be included outlining how the plant will handle this flow transition.

Infiltration and Inflow (I/I)

Inflow means water other than wastewater that enters a sewer system from sources such as roof leaders, foundation drains, yard drains, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, storm water runoff and other drainage structures.

Infiltration means water other than wastewater that enters the sewer system from the ground through defective pipe, pipe joints, and manholes.

I/I is a part of every collection system and must be taken into account in the determination of an appropriate design flow.

Excessive infiltration means the quantity of flow that is more than 120 gpcd (domestic base flow and infiltration).

Excessive inflow means the quantity of flow during storm events that results in chronic operational problems related to hydraulic overloading of the treatment system or that results in a total flow of more than 275 gpcd (domestic and industrial base flow plus infiltration and inflow). Chronic





operational problems may include surcharging, backups, bypasses, and overflows.

If excessive levels of infiltration or inflow exist in the system, a comparison of alternatives for elimination of the excessive flow and treating the excessive flow shall be included with the design summary.

Bypass/Overflow

All bypass/overflow structures shall be manually controlled and kept locked at all times. All bypassing is regulated by permit and is prohibited. An upset defense may be available if: 1) bypass was unavoidable to prevent loss of life, personal injury or severe property damage; 2) there was no feasible alternative to the bypass; or 3) the permittee gives previous notice of an anticipated bypass.

Any bypassing must be reported to the MPCA in a report consistent with permit requirements. This report shall include, but not be limited to, the bypass duration, estimated volume and associated meteorological conditions. Refer to the facility permit for specific bypass requirements. All bypasses and overflows must be immediately reported to the MN Duty Officer at 1-800-422-0798 (outstate) or (651) 649-5451 (Twin Cities Metro Area).

The MPCA may require a corrective action plan to mitigate frequent and/or unjustified bypass events. Failure to follow the proper bypass notification procedures or resolve problems in a timely manner may subject the permittee to enforcement actions, including monetary penalties.

The following design flow considerations may be required to be incorporated into new or existing treatment facilities on a temporary or full time basis in order to reduce the frequency as well as degree of adverse environmental impact associated with bypassing:

- A. The treatment facility shall provide pretreatment for the removal of coarse floatable and/or settleable solids during flows in excess of peak instantaneous wet weather. In addition, the pretreated wastes shall then be blended with the fully treated effluent, where practical, and discharge samples collected for the purpose of determining NPDES/SDS permit compliance of the blended effluent.

- B. Flow equalization for mechanical plants may be necessary in order to effectively operate treatment plants. Please refer to the section entitled Flow Equalization.

Essential Project Components Percentage

Minnesota Rules 7077.0111 to 7077.0292 apply to the MPCA's administration of financial assistance programs for the construction of municipal wastewater treatment systems. The assistance programs include the Wastewater Infrastructure Fund (WIF) and the State Revolving Fund (SRF) loan program. These rules require the calculation of an "essential project components percentage." The percentage will be used by the Public Facilities Authority (PFA) in their determination of a project's cost that may qualify for assistance with the WIF. Please see Table 3 for more information on calculating an essential project components percentage.

Wastewater Treatment Plant Design Loading

Table 4 should be used to determine the design loadings for the upgraded wastewater treatment plant.

For More Information

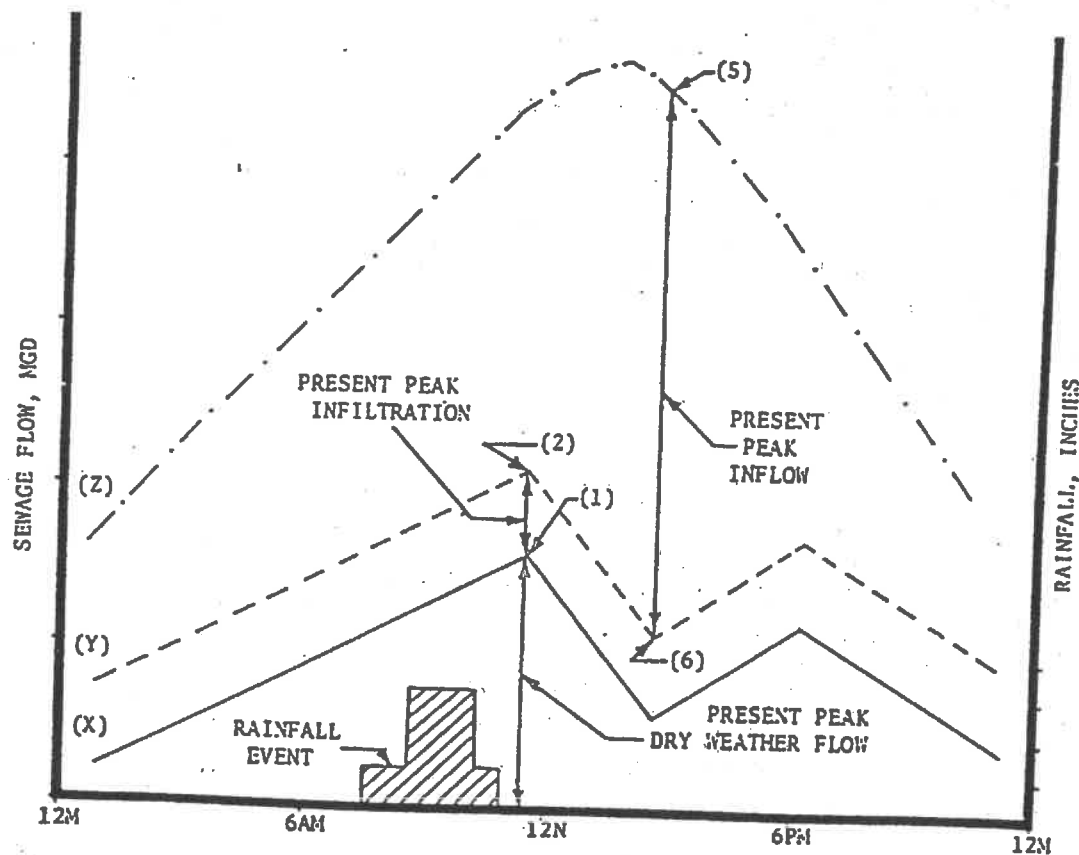
Please contact the engineer assigned to the project or District. If the engineer is unknown, contact the Customer Assistance Center.

Customer Assistance Center	(651) 297- 2274
MPCA	(651) 296-6300
Toll-free	(800) 657-3864
TTY	(651) 282-5332





Figure 1: Determination of Peak Hourly Flows Before Adjustment for Storm Event



Note: All flow measurements taken at treatment plant with adjustments for bypasses, overflows, and emergency pumping. Groundwater elevation in relation to sewers should be stated for several points in the sewer system. Dates of flow measurement should be stated.

PROJECT NAME Foley Wastewater Treatment Facility PlanLOCATION Foley, MinnesotaCOMPLETED BY Eric MillerDATE 12/18/2018**Table 2: Determination of Design Flows****(A) For determination of peak hourly wet weather design flows (PHWW):**

Gallons Per Day

1	Present peak hourly dry weather flow	
2	Present peak hourly flow during high ground water period (no runoff)	
3	Present peak hourly dry weather flow [same as (1)]	-
4	Present peak hourly infiltration	=
5	Present hourly flow during high ground water period and runoff at point of greatest distance between Curves Y and Z	
6	Present hourly flow during high ground water (no runoff) at same time of day as (5) measurement	-
7	Present peak hourly inflow	=
8	Present peak hourly inflow adjusted for a 5-year 1-hour rainfall event	
9	Present peak hourly infiltration [same as (4)]	
10	Peak hourly infiltration cost effective to eliminate	-
11	Peak hourly infiltration after rehabilitation (where rehabilitation is cost effective)	=
12	Present peak hourly adjusted inflow [same as (8)]	
13	Peak hourly inflow cost effective to eliminate	-
14	Peak hourly inflow after rehabilitation (where rehabilitation is cost effective)	=
15	Population increase <u>279</u> @ <u>160</u> gpcd times 3.4 (peaking factor)	151,000
16	Peak hourly flow from planned industrial increase	286,000
17	Estimated peak hourly flow from future unidentified industries	0
18	Peak hourly flow from other future increases	
19	Peak hourly wet weather design flow [(1)+(11)+(14)+(15)+(16)+(17)+(18)]	1,958,000

(B) For determination of peak instantaneous wet weather design flow (PIWW):

Gallons Per Day

20	Peak hourly wet weather design flow [same as (19)]	1,958,000
21	Present peak hourly inflow adjusted for a 5-year 1-hour rainfall event [same as (8)]	-
22	Present peak inflow adjusted for a 25-year 1-hour rainfall event	+
23	Peak instantaneous wet weather design flow	=

(C) For determination of average dry weather design flow (ADW):

Gallons Per Day

24	Present average dry weather flow	
25	Population increase _____ @ _____ gpcd	
26	Average flow from planned industrial increase	+
27	Estimated average flow from other future unidentified industries	+
28	Average flow from other future increases	+
29	Average dry weather design flow [(24)+(25)+(26)+(27)+(28)]	=

**(D) For determination of average wet weather design flow (30-day average for mechanical plants and 180-day average for controlled discharge ponds) (AWW):** Gallons Per Day

30	Present average dry weather flow	
31	Average infiltration after rehabilitation (where rehabilitation is cost effective) +	
32	Average inflow after rehabilitation (where rehabilitation is cost effective) +	
33	Population increase @ gpcd +	
34	Average flow from planned industrial increase +	
35	Estimated average flow from other future unidentified industries +	
36	Average flow from other future increases +	
37	Average wet weather design flow [(30)+(31)+(32)+(33)+(34)+(35)+(36)] =	

(E) Critical data (including a graphical display similar to Figure 1), methodology, and a discussion on the following items shall be included with the above calculations:

38	Dates during which actual flow data was recorded and its probable degree of accuracy.
39	Ground water elevation data relative to the collection system, during the time period when flow data was recorded.
40	Rainfall data during the time period when flow data was recorded and how the amount of rainfall compares to normal seasons.
41	Probable degree of accuracy of flow reduction due to proposed or completed I/I correction or elimination of bypasses.

Table 3: Essential Project Components Percentage

Definitions:

“Essential project components” means those components of a wastewater disposal system that are necessary to convey or treat a municipality’s existing wastewater flows and loadings and future flows and loadings based on the projected residential growth of the municipality for a 20-year period.

$$\text{Mass Loading (lbs./day)} = \text{Flow (MGD)} \times \text{Concentration (mg/l)} \times 8.34$$

	Total Existing Daily Conditions		Total Proposed 20-year Design Conditions	
Flow (MGD)		MGD		MGD
CBOD ₅ (mg/l)		mg/l		mg/l
Mass Loading (lbs./day)		lbs./day		lbs./day

Essential Project

$$\text{Components Percentage} = 100 \times \frac{\text{Total Existing CBOD}_5 \text{ Mass Loading}}{\text{Total 20-year Growth Mass Loading}}$$

$$= 100 \times \frac{(\quad)}{(\quad)}$$

$$= \quad \%$$

**Table 4: Determination of Design Loadings**

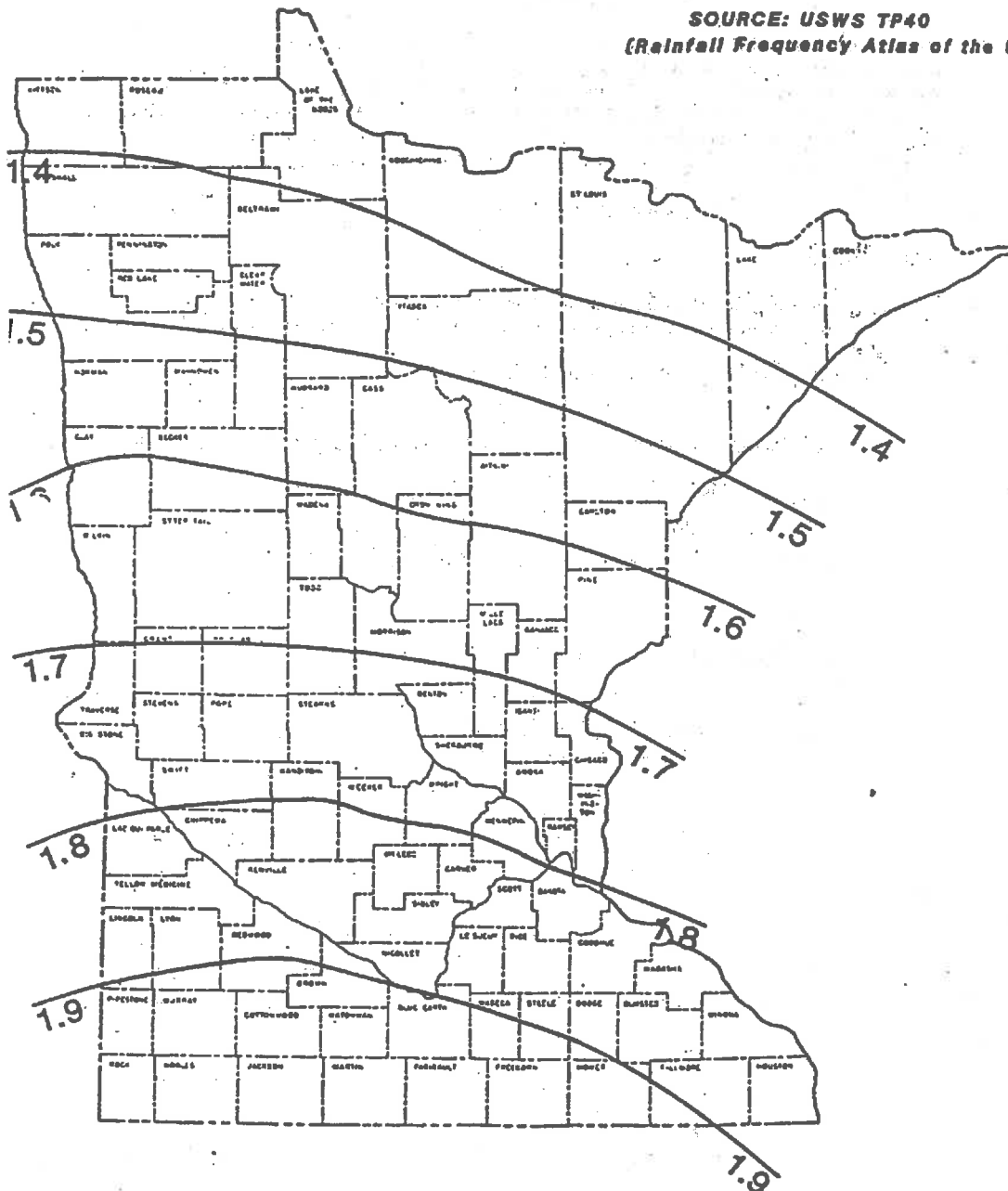
		Unit Basis	ADW	AWW
Residential Waste	Population			
	Flow, GPD			
	BOD ₅ , #/day			
	TSS, #/day			
	NH ₃ -N, #/day			
	P, #/day			
Out-of-Town Students and Workers	Number			
	Flow, GPD			
	BOD ₅ , #/day			
	TSS, #/day			
	NH ₃ -N, #/day			
	P, #/day			
Seasonal Residents	Number			
	Flow, GPD			
	BOD ₅ , #/day			
	TSS, #/day			
	NH ₃ -N, #/day			
	P, #/day			
Industrial	Flow, GPD			
	Rated Flow, GPD			
	BOD ₅ , #/day			
	TSS, #/day			
	NH ₃ -N, #/day			
	P, #/day			
Other (Specify)	Flow, GPD			
	Rated Flow, GPD			
	BOD ₅ , #/day			
	TSS, #/day			
	NH ₃ -N, #/day			
	P, #/day			
Infiltration	GPD			
Inflow	GPD			
Total	Flow, GPD			
	Rated Flow, GPD			
	BOD ₅ , mg/l			
	BOD ₅ , #/day			
	TSS, mg/l			
	TSS, #/day			
	NH ₃ -N, mg/l			
	NH ₃ -N, #/day			
	P, mg/l			
	P, #/day			

* It may be necessary to also test for TKN for certain industrial contributors.



MAP NUMBER 1:
5-Year, 1-Hour Storm Event (inches)

SOURCE: USWS TP40
(Rainfall Frequency Atlas of the U.S.)





MAP NUMBER 2 :

25-YEAR,

1-Hour Storm Event (inches)

SOURCE: USWS TP40

(Rainfall Frequency Atlas of the U.S.)

