PROJECT PLAN FOR WASTEWATER TREATMENT PLANT UPGRADES

DRAFT FOR CITY OF CHEBOYGAN

Final: August 1, 2020
HRC Job No. 20180052

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SECTION 1.0 — SUMMARY AND RECOMMENDATION

1.1 SUMMARY

The Project Plan for the City of Cheboygan Wastewater Treatment Plant (WWTP) improvements has been prepared using the Project Plan Preparation Guidance of the State Revolving Fund (SRF) Administrative Rules. The SRF provides for financial assistance in the form of low interest loans, currently at 2.0%. These rules call for compliance with the basic Federal Planning Requirements and the National Environmental Policy Act (NEPA). This Project Plan will serve as a basis for project prioritization and must be submitted to the Michigan Department of Environment, Great Lakes, & Energy (EGLE) by August 1, 2020 in order to be on the project priority list for the fiscal year of 2021.

The proposed projects listed herein as part of this SRF Project Plan are needed mostly for replacement of degrading and failing equipment, meeting requirements of the National Pollutants Discharge Elimination System (NPDES) permit and increase in efficiency for reduction in the operating and maintenance costs. Several of the projects are long overdue and are needed to ensure the WWTP can continue to meet the requirements set forth by their NPDES permit, see Appendix A for the City's current NPDES permit. In some cases, imminent failure is expected of existing equipment and immediate attention is needed.

1.2 CONCLUSIONS

The following is a summary of the existing issues the Project Plan identified at the City of Cheboygan WWTP:

- Influent pumping and screening equipment has outlived its useful life and is in need of replacement.
- The existing grit removal equipment including the grit removal tank equipment and grit classifier have outlived their useful life and are in need of replacement. The existing building housing the grit classifier is not large enough for a properly sized unit, a building expansion is required to house a new unit.
- Existing primary and final clarifier equipment and associated sludge pumps have deteriorated and require replacement. A third final clarifier should be constructed to provide adequate treatment for peak flows. The primary tanks should be abandoned when the oxidation ditch process is constructed.
- The biological treatment system, rotating biological contactors (RBC), do not provide sufficient treatment, have outlived their useful life and are in need of replacement. They should be replaced with a new oxidation ditch activated sludge system to provide more efficient treatment at the same cost as the RBC system.
- A new disinfection system is required to replace the aging chlorine disinfection system and chlorine contact tank. Chlorine gas is currently used for this which creates safety hazards and significant regulatory requirements under Process Safety Management. This should be replaced with an ultraviolet disinfection system.
- The existing sludge digestion system has outlived its useful life and it relies on land application which has become unreliable. This system should be replaced with a new sludge dewatering system including sludge press and loading facility. Landfilling of dewatered sludge cake for ultimate disposal can then be done.
- The Laboratory, Administration Building, and other buildings at the site are aging and require upgrades.

- Plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway require upgrades and/or replacement

1.3 RECOMMENDATIONS

The selected projects identified in this Plan are the most cost-effective and environmentally-sound alternatives. The following recommendations are therefore made:

- The City Council should pass a resolution formally adopting this Plan.
- The City should apply for a low-interest loan under the State Revolving Fund (SRF) program.

SECTION 2.0 — PROJECT BACKGROUND

2.1 STUDY AREA DESCRIPTION:

2.1.1 GENERAL

The City of Cheboygan is located in Cheboygan County, Michigan. The total City area is approximately 7 square miles. The City's WWTP is located at 975 North Huron Street, Cheboygan, MI 49721. The plant was originally constructed in 1946 and was modified and/or expanded in 1975 and 1998.

The City's WWTP treats the wastewater discharges from the entire City of Cheboygan as well as portions of Inverness Township. The WWTP service area is shown on Figure 2-1.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. A map showing the WWTP sanitary sewer service area is provided in Figure 2-1.

2.1.2 LAND USE

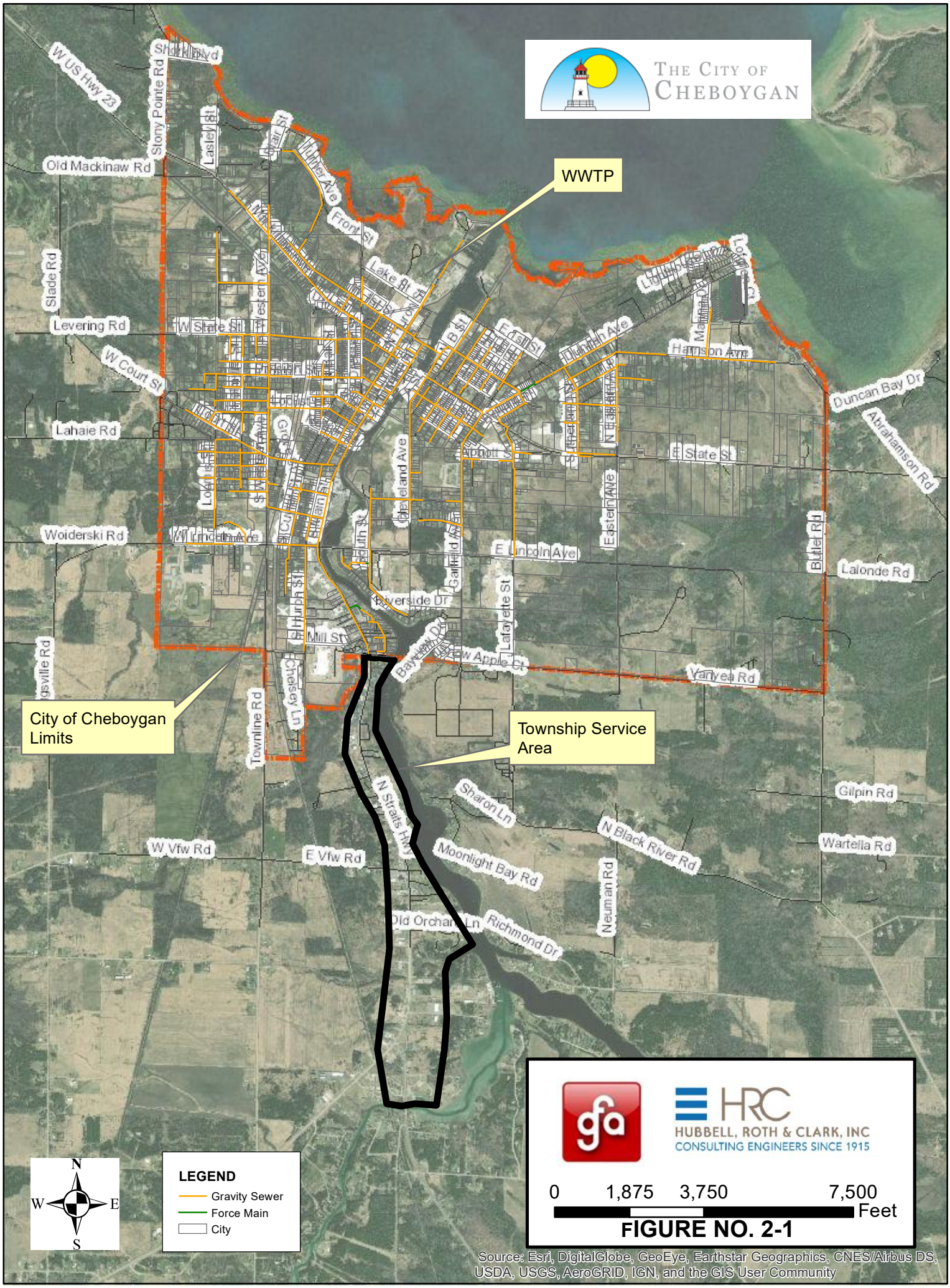
The largest land use types within the City of Cheboygan (excluding open space and utilities) are residential and commercial. A map with the current zoning districts within the City of Cheboygan can be seen in the attached Figure 2-2.

Table 2.1 below shows the land cover areas by percentage in the City.

Table 2-1. Land Cover

Land Cover Type	
Residential	63%
General/Local Business	12%
Mobile Home Residential	6%
Water Front Marina	5%
Light Industrial	5%
Multi-family Residential	4%
General Commercial	2%
Tourist Services	2%
Offices	1%
Total	100%

** Source: https://www.cheboygan.org/wp-content/media/Zoning-Ordinance.pdf*



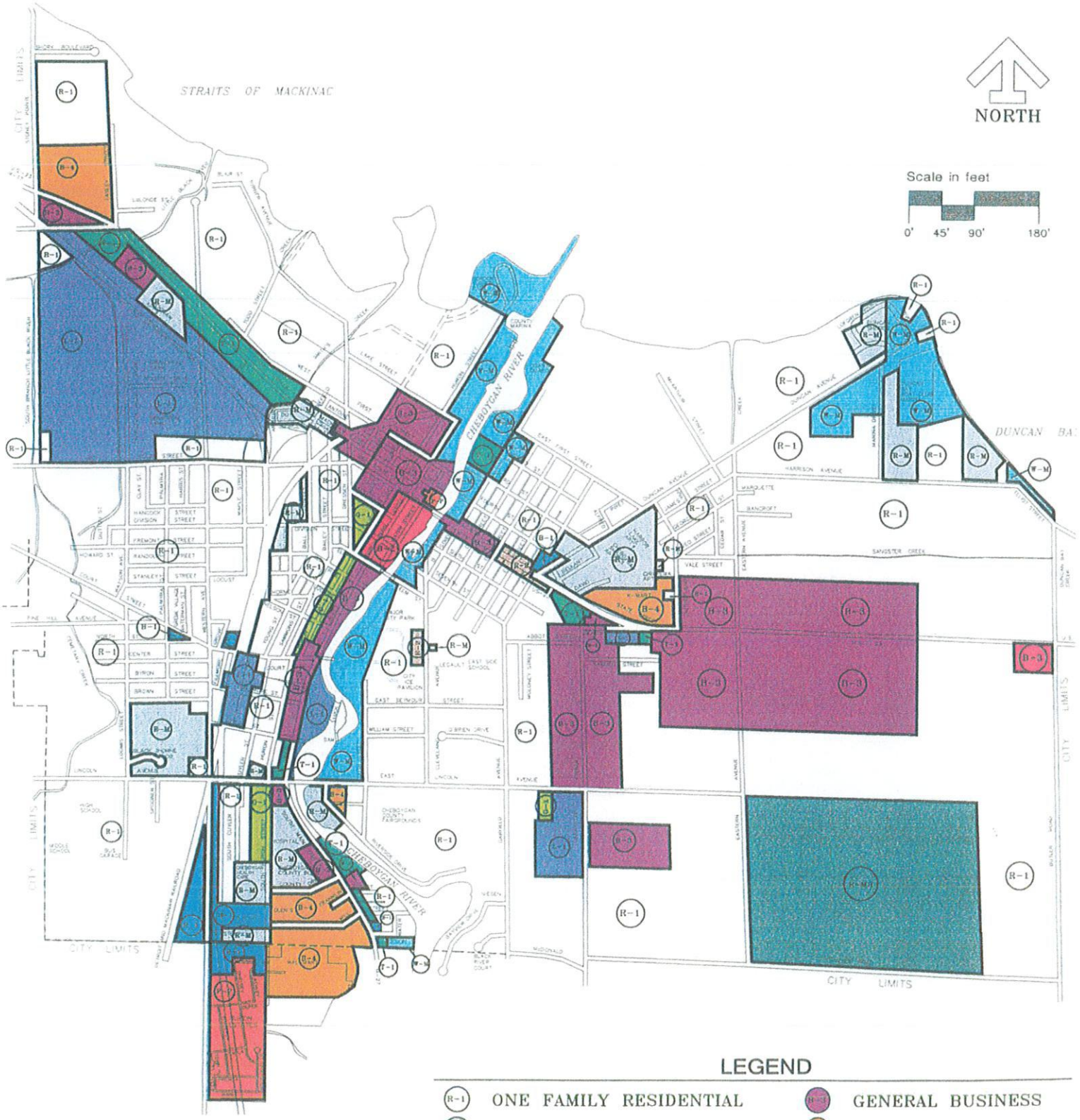
Document Path: V:\20180\20180052\P\Exhibits\Figure 2-1 Sewer Service Area.mxd

Date: 6/7/2019

Figure 2-2

CITY OF CHEBOYGAN
ZONING MAP

THE CITY OF CHEBOYGAN



LEGEND

- ONE FAMILY RESIDENTIAL
- TWO FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- MOBILE HOME RESIDENTIAL
- TOURIST SERVICE
- LOCAL BUSINESS
- CENTRAL BUSINESS
- GENERAL BUSINESS
- GENERAL COMMERCIAL
- OFFICE
- WATER FRONT MARINA
- LIGHT INDUSTRIAL
- PLANNED PROJECT

ADOPTED 11/26/1996
REVISED AS PER 12/09/1997 APPROVAL
REVISED AS PER 10/13/1998 APPROVAL
REVISED AS PER 08/24/1999 APPROVAL
REVISED AS PER 11/20/2002 APPROVAL
REVISED AS PER 09/19/2005 APPROVAL
REVISED AS PER 01/04/2010 APPROVAL

2.1.3 POPULATION DATA

Population numbers and projections for the City of Cheboygan came from the United States Census Bureau database. The U.S. 2010 Census Bureau data estimated the average household size in the City at 2.24 people per household. The population projections for the City of Cheboygan and Cheboygan County are shown below in Table 2-2:

Table 2-2. Population Projections

Year	City of Cheboygan Population	Cheboygan County Population
2010	4,850	26,062
2017	4,710	25,398
2019-2020	*4,684*	*25,276*

** Census projections: https://www.census.gov/quickfacts/cheboygancountymichigan*

Recent projections show the 2017 population having decreased slightly since the 2010 Census in the City of Cheboygan and Cheboygan County.

2.1.4 ECONOMIC CHARACTERISTICS

The major industries in the City of Cheboygan are retail trade, healthcare, social assistance and accommodation/ food services. The median household income for Cheboygan, Michigan was $35,972 in 2017. The median household income is lower than the median Michigan household income and the U.S. median household income.

** Source: https://datausa.io/profile/geo/cheboygan-mi/*

2.1.5 CULTURAL AND ENVIRONMENTAL SETTINGS

Cultural Setting:

The City of Cheboygan, Michigan has 2 historic properties list under the National Register of Historic Places. However, none are within the project limits and will not be impacted by the proposed project since all work will be undertaken at existing facilities. The State Historic Preservation Office (SHPO) was contacted to aid in the identification of significant historical and archaeological sites which may be affected by the project and as of May 20, 2020, we have not received a response. All correspondence related to this matter are included in Appendix A.

Air Quality:

The area has the noise pollution characteristics of a typical urban, tourist-driven community. No noise pollution problems exist in residential areas, other than from traffic noise from adjacent major roadways. Commercial and business areas experience only normal traffic noise.

Lastly, the proposed project may become in contact with the removal of building materials containing asbestos, due to the fact these buildings were built in a time where asbestos materials were used. However, all precautionary steps and procedures will be undertaken to comply with NESHAP regulations.

Wetlands:

There are no localized wetlands associated within the existing project footprint where the work is anticipated. For final design, any wetlands that may be impacted would be flagged and the appropriate permits will be applied for. However, it is not anticipated to be an issue for this project. Wetland maps are shown in Figure 2-3.

Great Lake Coastal Zones:

The major body of water north the City of Cheboygan is Lake Huron, which is a quarter mile away from the WWTP. Across from the WWTP is the Cheboygan River which is a 7 miles long river that outlets into Lake Huron and is a significant river in the Lake Huron drainage basin. For this project plan, no impacts with be made to the Lake or tributary areas. See FEMA floodplain maps in Figure 2-4 for proximity to Lake and River.

Floodplains & Surface Waters:

There will be no major impacts to the Cheboygan River or Lake Huron's floodplain, however, proper permits will be acquired, and steps will be taken to avoid any damage or permanent disruption which could affect the nearby floodplain. Part of the oxidation tank construction may be within the 100-year floodplain, and if so, mitigation measures and soil erosion efforts will be undertaken to protect the floodplains influenced by the project, including but not limited to silt fences, turbidity curtains, stone check dams, gravel access drives, rip-rap, etc. Additionally, excavations will be filled with appropriate backfill materials, compacted and restored to existing grade. Any work which impacts the floodplain will only be undertaken after first contacting EGLE and obtaining the appropriate permits.

FEMA floodplain maps are shown on Figure 2-4.

Natural or Wild and Scenic Rivers:

The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. The WWTP is also located directly across from the Cheboygan River. The location of these improvements and construction will be planned to not occur or impact the nearby Lake and/or River. See Appendix B for attached documentation of the Nationwide Rivers Inventory for more information on the Cheboygan River. The location of the excavations of the oxidation tank in the nearby wooded area will not impact the river or Lake tributaries.

Recreation Facilities:

Cheboygan County contains 6 parks filled with multi-purpose recreational activities and many walking/biking trails. A famous recreational park within the City of Cheboygan is the Gordon Turner Park, close in proximity to where the construction will take place. However, no parks or other publicly owned facilities will be impacted by the proposed work.

Topography:

The terrain within Cheboygan County is characterized as relatively flat but has relative low spots near the Cheboygan River and Lake Huron. The lowest point at about 580 feet above sea level and is in the north region of the City on the Cheboygan River outlet into Lake Huron. The highest point is about 630 feet above sea level located in the southwest corner of the City.

Geology:

Cheboygan County mainly consists of outwash deposits. This glacial material, referred to as glacial drift, was deposited as the glaciers receded from this area of the continent approximately 18,000 years ago. Underlying the glacial drift is bedrock, which consists of gently to rolling sedimentary rock formation. Two types of bedrock make up the bedrock surface in the City of Cheboygan, Detroit River Group and Bois Blanc Formation.

* Source: https://mrdata.usgs.gov/geology/state/fips-unit.php?code=f26049

Soils:

According to the USDA Natural Resources Conservation Service Web Soil Survey, the City of Cheboygan consists of 33 types of soils total. The 3 main soils in the City are the Charity Fine Sandy Loam (44.5%), Udorthents and Udipsamments loamy (8.6%), and the Rudyard Loam (9%). The project area at the WWTP contains only Udorthents loamy. See Appendix C for documentation of the Web Soil Survey results.

As part of the final design process, soil borings will be taken near the proposed work areas to determine if any special construction methods will be needed.

*Source: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Agricultural Resources:

There is no agricultural land located within the project limits. The project area is within developed and human use land cover; therefore, no agricultural resources will be impacted by the proposed work.

Existing Plant and Animal Communities:

Wildlife within the study area includes animals and birds normally associated with urban or agricultural environments.

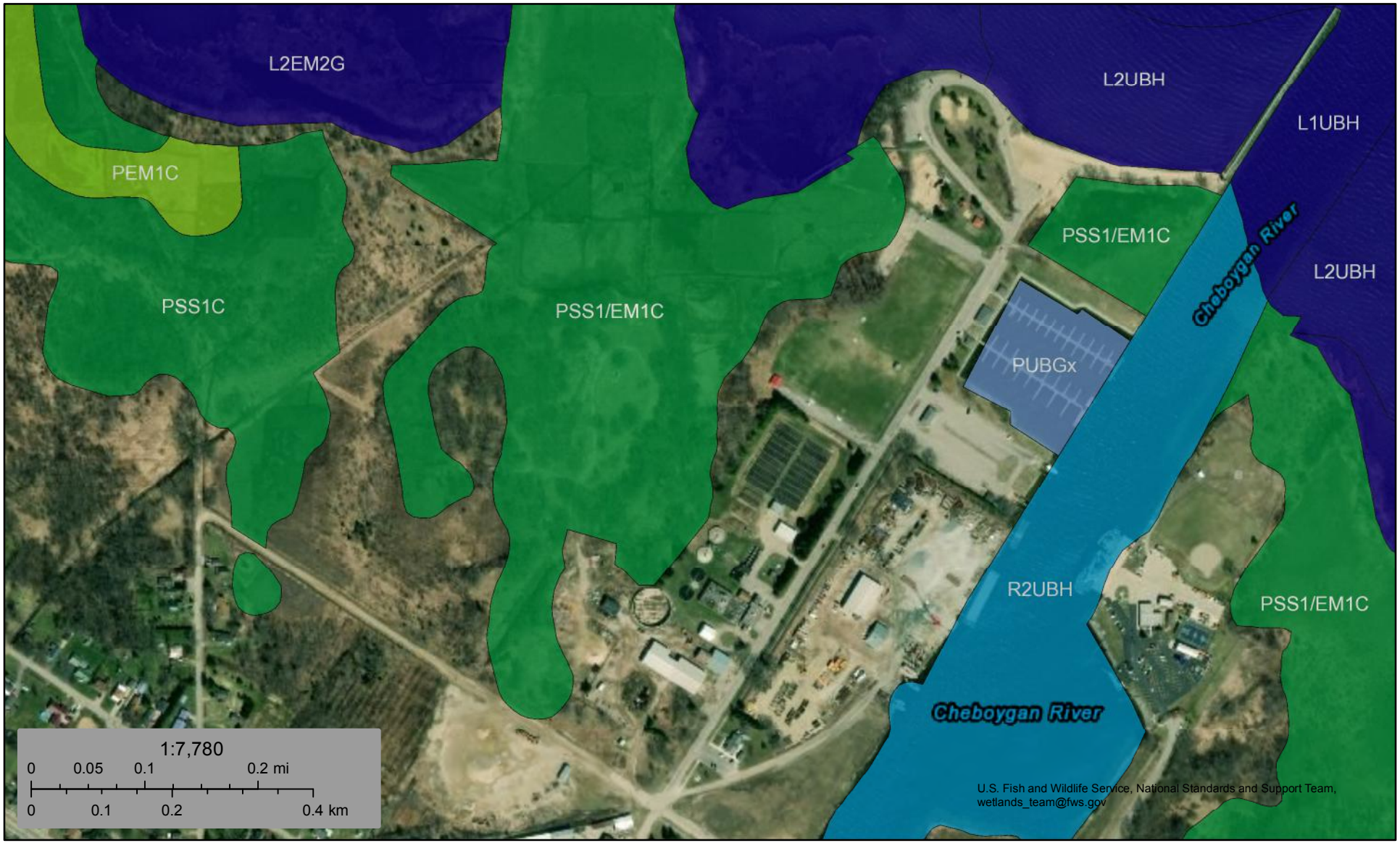
The Michigan Natural Feature Inventory and U.S. Fish and Wildlife (USFW) Technical Assistance website was reviewed for federally or state listed threatened and endangered species. According to the USFW website, the City of Cheboygan has three (3) endangered species, the Piping Plover, Hungerford's Crawling Water Beetle, and Michigan Monkey-flower. The Piping Plover is a shoreline bird that feeds along coastal sand beaches. The Hungerford's Crawling Water Beetle's habitat is a cool riffle of a stream. The Michigan Monkey-flower is semi-aquatic and forms mats over mucky soil and sand saturated or covered by cold, flowing spring water. In addition to the endangered species, there are also seven (7) threatened species, the Northern Long-Eared Bat, Red Knot bird, Eastern Massasauga rattlesnake, Dwarf Lake Iris, Eastern Prairie Fringed Orchid, Houghton's Goldenrod, and Pitcher's Thistle. The usual habitat for the rattlesnake is wetland areas and prairie fens. Eastern Prairie Fringed Orchid are found in moist to wet tallgrass prairie, sedge meadows, fens, and old fields. Red Knot birds can be found on coastal land shorelines. Northern Long-Eared Bats are primary found in boreal forested habitats, and dwell in hardwood trees during the summer. As all the work is to take place on the existing WWTP property, which is already developed, therefore will be no impacts to these types of habitats.

The US Fish and Wildlife and the Michigan Natural Features Inventory (MNFI) were contacted regarding endangered species. MNFI has not responded with feedback as of May 20, 2020. All documentation regarding endangered/threatened plants or animals is included in Appendix D.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Cheboygan WWTP

The City of Cheboygan



June 19, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Figure 2-3

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

PIN
- Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
- Selected FloodMap Boundary
- Digital Data Available
- No Digital Data Available
- Unmapped

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D
- Otherwise Protected Area
- Coastal Barrier Resource System Area

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth
- Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

FEMA Floodplain Map - City of Cheboygan

Figure 2-4

2.2 EXISTING FACILITIES – GENERAL

City of Cheboygan treatment infrastructure is a critical asset for treating waste and preventing the introduction of pollutants into the Cheboygan River. A description of the City's wastewater treatment infrastructure is provided in the following sections. In addition, the City accepts waste from a portion of a separate neighboring district to the south, Inverness Township. See Figure 2-1 for service area of this Township.

2.2.1 WASTEWATER TREATMENT PLANT

The City of Cheboygan Wastewater Treatment Plant (WWTP) has a permitted annual average daily flow rating of 2.5 MGD and is currently operating at an average daily flow rate of approximately 1.5 MGD. The summer dry weather flow to the plant has been approximately 0.4 MGD in recent years.

The maximum hydraulic capacity of approximately 9 MGD is moderated by the provision of off-line raw wastewater storage in the CSO tank and the equalization tank. A site plan of the WWTP is shown in Figure 2-5.

The WWTP is located at 975 North Huron Street, with all collected wastewater being received at the plant, treated, and continuously discharged to the Cheboygan River near its exit into Lake Huron. The WWTP has a preliminary treatment system consisting of raw sewage pumping, fine screening, grit treatment and flow measurement. Pretreated wastewater proceeds by gravity through the primary clarifiers, RBCs, and secondary clarifier tanks. Secondary clarifier effluent flows to the chemical disinfection system in the chlorine contact tank and then to the drain for discharge. Excess influent wastewater can be redirected to the CSO storage basin or equalization tank on site for storage prior to being returned for treatment through the main process stream. Waste sludge from the secondary clarifiers and from the primary clarifiers is digested in the anaerobic digesters and gravity settled prior to land application. Ferric chloride can be added at the primary settling tanks for the removal of phosphorus. Sludge storage tanks and sludge drying beds hold the digested sludge prior to final disposal via land application to farm fields. These systems are described in greater detail in the next sections.

The City of Cheboygan is under contractual obligation to provide wastewater treatment service to Inverness Township. Currently flow from the township accounts for only about 3% (45,000 gpd) of the daily average influent flow of 1.5 MGD. It is expected that flows from Inverness Township will increase over time as the sewer system is built out to eventually reach to full contracted capacity.

The City of Cheboygan WWTP is effectively treating the wastewater flows received from the area tributary to the facility during most dry weather flow conditions. Appendix A contains a copy of the City's current NPDES permit. This permit includes all of the plant's effluent limitations and monitoring requirements.

Table 2-3. Sewerage System Facilities Treatment

2018 Average Effluent (mg/l)			
$CBOD_5$	TSS	Total P	NH_3-N
7.8	11.1	0.58	4.8

The City has had a number of violations at their plant in the past five (5) years, generally related to either equipment failures or the requirement to remove 85% of the influent compatible pollutants (CBOD and TSS). In many cases, due to high infiltration and inflow (I/I) of stormwater/groundwater into the sewer system, the influent is so weak in organic strength that the treatment technology employed at the plant is simply not capable of removing 85% of the organic load. In fact, the effluent leaving the plant generally meets the permit conditions for the pollutants themselves, but not the overall 85% removal requirement. The City is pursuing removal of I/I from the sewer system, but until a significant portion is removed, it will be challenging to remove 85% of the influent organic load, regardless of what treatment technology is used at the plant.

The City submitted a corrective action plan (CAP) to the State Department of Environment, Great Lakes and Energy (EGLE) to address the deficiencies in the plant and sewer system and is currently conducting a Sanitary Sewer Evaluation Study (SSES). The results of this study will not be known prior to the proposed WWTP project being designed and bid. Due to the fact that the WWTP is failing, it needs to be rehabilitated as soon as possible and will generally be sized as it is now without taking into account the future reduced amounts of infiltration and inflow from the sanitary sewer system after the SSES is completed and the sewer system is rehabilitated.

2.3 EXISTING FACILITIES – GENERAL

2.3.1 Liquid Stream

General

The current average flow is approximately 1.5 MGD and the design treatment capacity is 2.5 MGD average flow, 5.0 MGD peak equalized flow and 9 MGD peak instantaneous flow. A process flow diagram of the liquid treatment stream is shown in Figure 2-6.

Influent Pumping

The five (5) influent dry pit pumps are rated for the design peak flows with one pump out-of-service. These pumps provide the lift necessary to allow the flow to travel through the plant by gravity from this point forward.

The existing pumps have deteriorated significantly, except for two of the pumps which have been replaced since the original construction. The piping and valves for these five pumps are significantly deteriorated and should be replaced along with the pumps. The peak flows into the plant have approached 13 mgd during significant storm events. When this occurs, the flow floods the screen room and backs up the main sewer. All five of the pumps will turn on in this situation and pump the flow as much as possible to the CSO overflow tank, which eventually overflows

to the spare chlorine contact tank. For the purpose of this study, we are assuming that enough I/I will be removed from the system to bring the peak flows back down to the design level of the pump station, 9 mgd.

Fine Screening

An automatic fine screen is provided in the headworks building upstream of the screw pumps and is rated for the peak flow. Screening from this equipment are dumped in a dumpster. This screen is original to the 1970's construction of the plant and is no longer functional. It does not capture screenings from larger flow events and cannot keep up. This results in the screen room being flooded up to a level approximately six feet above the floor of the screen room (basement).

The backup or redundant flow channel present houses a manual bar screen. However, the stop plates which need to be used to direct flow to either the main or bypass channel are not easily operable and should be replaced.

The existing screening equipment is in need of immediate replacement with a ¼" spaced automatic fine screen. When this is done, a washer/compacter should be added to the discharge of the screen to accommodate the increase in solids load which will result from a more efficient, operable screen. The size of this washer/compacter which would be located on the upper floor of the screen building, is such that there would not be enough room in this area for the washer/compacter and the grit classifier. Thus, this area should be expanded.

Influent Flow Measurement

The 12-inch Parshall flume used for influent flow measurement is operating properly during normal flow conditions. No improvements to this flume are recommended as part of this project.

Grit Removal

The existing 16-foot square aerated grit removal tank is located downstream of the raw sewage pumps, just outside of this building. This system consists of an air system to keep organics in suspension and a grit removal pump, which pumps settled grit to a grit classifier located in the grit screenings room for further grit separation into a dumpster. This equipment is all original to the 1970's construction and is non-functional and should be replaced. Newer technologies are now available for grit removal which provide significantly better removal efficiencies than the existing aerated grit system. This new technology should be retrofitted into the existing aerated grit tank.

Equalization/Storm Flow Storage

There are two existing tanks for equalization and/or storm flow storage. The first tank was constructed as part of the 1970's project and is a buried, covered tank with 350,000 gallons of capacity. The second tank was constructed in 1998 and is an open top, above ground steel tank with 1,300,000 gallons of capacity. These tanks can be brought on-line by the operators by opening a control valve which will then meter the flow to the tank. If the tank should overflow, it will be routed to the standby chlorine contact tank (CSO basin) for disinfection prior to discharge thru the effluent flowmeter, or in the case of the equalization tank it is routed through a separate effluent flowmeter prior to discharge without disinfection. Both of these tanks are in relatively good condition. The size of these tanks is such that the plant has not had an unauthorized discharge due to wet weather since the newer tank was built. With the plan to remove I/I from the sewer system, there is no intention of increasing the size of these two tanks.

No work is planned for these tanks in the next 20 years.

Primary Clarification

Four primary rectangular clarifiers are provided downstream of the grit tank. Each clarifier is 60 feet long, 14 feet wide, 10 feet deep and is equipped with chain and flight sludge collection mechanisms. These mechanisms sweep the settled sludge to a hopper at the end of the tank where it is removed with a primary sludge pump.

In general, the performance of these clarifiers has been good with removals of approximately 35% of BOD and 50% of TSS. The clarifier tanks are covered with a concrete lid. Scum removal in the tanks is accomplished with a scum removal trough that is manually operated on each clarifier.

The mechanical equipment in each clarifier is original to the 1970's and has outlived its useful life. This includes the two sludge pumps. The concrete tanks are in generally good shape, but there is some cracking and other deterioration which should be addressed if they are continued to be used. If the biological treatment process is changed to an oxidation ditch, the primary clarifiers are no longer needed.

Rotating Biological Contactors

There are two rectangular tanks each housing four RBC units for a total of eight (8) units. These RBCs are housed in an enclosed building, which is necessary for their function. The RBCs have all had their shafts replaced due to failure since they were installed in the 1970's. In their current condition, four out of the eight RBCs are functional. Given the relatively low organic load coming into the plant, they generally do an acceptable job of removing the BOD even with four of the units out-of-service. This is because the original design was to treat BOD of 180 mg/l but the current average is closer to 60 mg/l of BOD.

However, they regularly do not meet the required 85% removal for BOD especially under storm flow conditions when the incoming waste is already so dilute. In addition, in storm flow conditions it can occur that some of the bio-growth is washed out of the RBC media which results in problems downstream and also a lack of bio-growth for further treatment.

Given their age and condition, if this process is maintained all eight of the RBCs should be replaced in kind and the building that houses them should be rehabilitated. However, if the biological treatment process is changed to an oxidation ditch, the RBCs will no longer be needed.

Final Clarification

There are two existing 50-foot diameter final clarifiers. One of them is no longer functional. These are original to the 1970's construction and are in need of replacement of the mechanisms, rehabilitation of the concrete tanks and replacement of the sludge wasting pumps. In addition, these two clarifiers do not have adequate surface overflow capacities for storm flow events in accordance with 10-State standards. A third clarifier should be constructed in this case. This will also provide the ability to rehabilitate each of the existing clarifiers, as both are needed for normal treatment and could not be taken out-of-service for an extended period of time to be rehabilitated.

The existing weir system should also be improved as part of a rehabilitation project to provide new concrete effluent lauders and effluent baffling. This will improve the effluent quality.

Chemical Feed

There is an existing ferric chloride feed system, which is used for phosphorus reduction, housed in the chemical feed building. There are two 5,000 gallon ferric storage tanks and a day tank, along with feed pumps/piping/valves. The larger storage tanks are in good condition and can remain, but the day tank, feed pumps, piping/valves should all be replaced.

The de-chlorination system is also housed in the chemical building. It is a sodium bisulfite system which utilizes drums or totes for liquid storage and chemical feed pumps. It has also outlived its useful life and can be abandoned with the construction of a new UV disinfection system.

The chlorination system consists of 1 ton gas cylinders. The feed system utilizes a vacuum system utilizing service water to carry the chlorine to the contact tank. The equipment for this system is relatively new and is not in need of replacement. However, there are significant safety issues housing chlorine gas in this quantity, especially in the beachfront/downtown area of the City. Most plants have switched to ultraviolet disinfection to alleviate the safety concerns with the chlorine gas system. This system will be abandoned when the UV disinfection system is constructed.

The concrete tank used for chlorine contact is the original primary settling tank from the 1940's. It is in need of rehabilitation if it is to be continued to be used as a ultraviolet disinfection tank.

2.3.2 Solid Stream

Sludge Pumping, Stabilization and Storage

The plant utilizes anaerobic digesters for stabilization of its primary sludge. It pumps the sludge from its primary clarifiers, secondary clarifiers and between its digesters, storage tanks and sludge drying beds. There are currently two anaerobic digester tanks (330,000 gallons each), two sludge storage tanks (250,000 gallons each), eight (8) sludge pumps and thirteen (13) sludge drying beds. The plant currently processes approximately 1,000 lbs/day of solids in this system.

The secondary sludge is co-settled with the primary sludge and is also digested. The digesters do not provide much thickening during the digestion process, so for many years the sludge was pumped to the drying beds on site for further drying to minimize the disposal volume. The sludge is eventually land applied. However, for a number of years now the sludge has been accumulating in the drying beds and has not been disposed of off-site. A new hauling contractor to land apply the sludge needs to be retained by the City at some point.

The existing sludge pumps and digestion/sludge mixing equipment have all outlived their useful life and should be replaced if they were to be retained. However, there is no current regulatory requirement to digest the sludge. This digestion operation is inefficient due to the low amounts of solids entering the digesters and also poses safety risks due to the presence of the methane gas and the flare system. These factors, plus the difficulty for the City land applying the sludge with any consistency leads us to recommend that the City change its method of sludge disposal.

We recommend that the City convert the existing digestion system to a dewatering system that can then landfill dispose of the dewatered sludge cake. This will simplify the operation on site, make it safer with the abandonment of the digester gas/flare system, make it more reliable with landfill disposal and make it more compact.

A process flow diagram of the solids handling stream is shown in Figure 2-7.

2.3.3 Plant Infrastructure

Electrical Systems

The main switchgear and motor control centers at the plant were damaged in a fire and replaced within the last 5 years. In addition, a standby power generator was added to replace a second power feed to the plant in 1998.

However, the remaining motor control centers and power panels from the 1970's are original and should be replaced. This includes MCC E, PP-C, and PP-D. There are a number of lighting panels that should also be replaced.

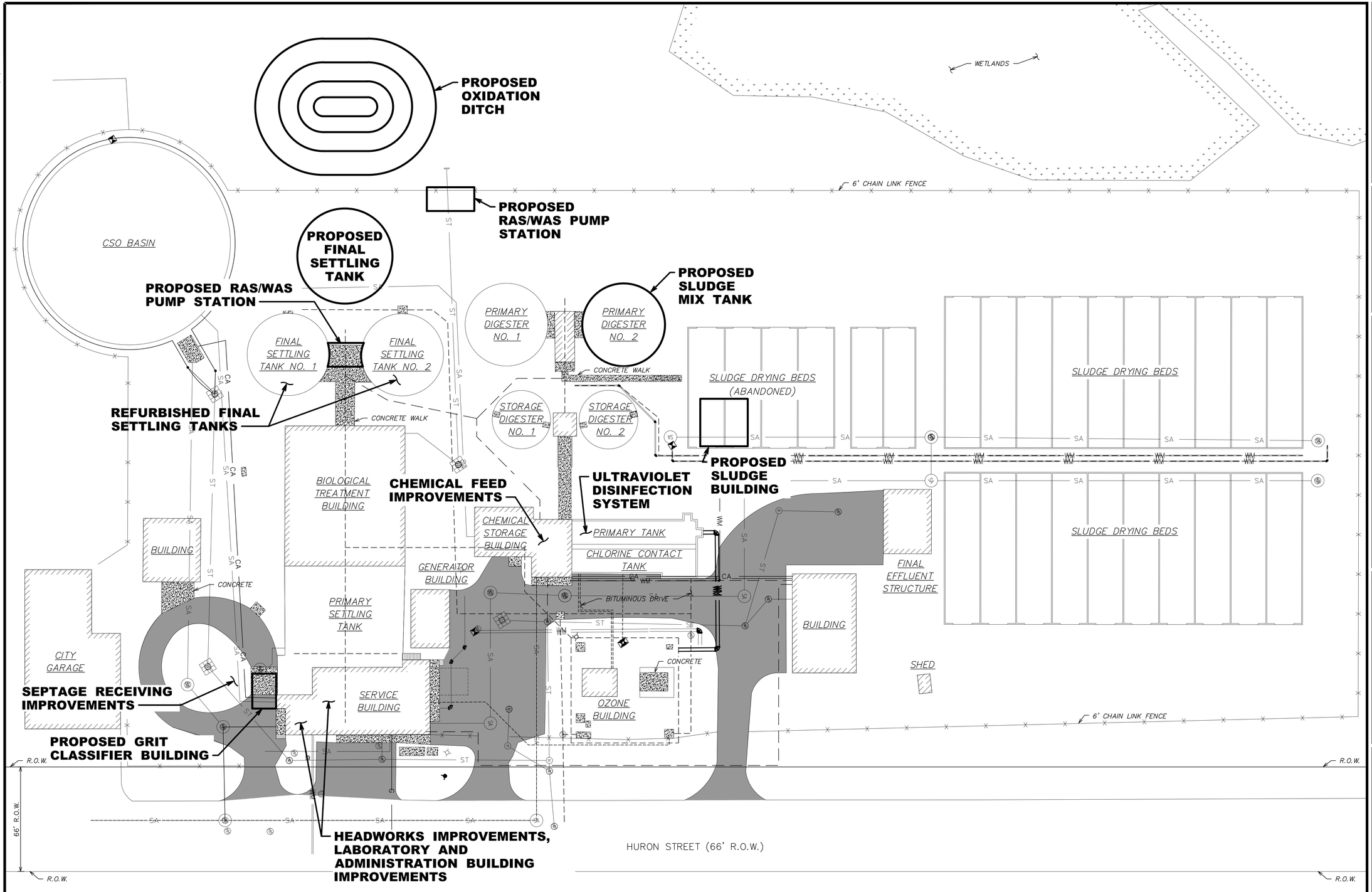
Service Water System

The Plant utilizes final effluent water as its source of service water for yard hydrants, seal water, and other process support applications throughout the plant. Water is pumped from the final effluent using centrifugal pumps to a pressure tank, from which it is distributed to a network of pipes which run throughout the plant.

The system functions adequately as designed; however, the FEW pumps and yard hydrants are reaching the end of their useful life and should be replaced. Updated solids handling equipment and the screenings/grit washer/compactor may require additional service water capacity as well.

Administration Building, Lab, and Other Buildings

The existing laboratory and Administration building at the plant are original to the plant's initial construction in the 1970's, as are many of the other buildings at the site. The Laboratory and Administration Building have been in continuous use for almost 50-years. The facilities have suffered significant wear during those years, while at the same time the technological and scientific requirements for management a wastewater treatment plant have changed drastically. Many of the other buildings on the site have failing or deteriorated brickwork, doors and windows. These issues should be addressed to bring the buildings up to current standards and replace failing elements.



NEW SITE PLAN
SCALE: 1" = 30'

N

1" = 30'

0 15 30 60
SCALE IN FEET

FOR TRUE SCALE PLOT THIS SHEET TO 34" X 22" PAPER SIZE

3 FULL WORKING DAYS
BEFORE YOU DIG CALL MISS DIG ®
1-800-482-7171
Member utilities are required to locate their facilities at no charge to the caller.

NOTICE:
ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION, AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION ACTIVITIES.

THE CITY OF CHEBOYGAN

HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915
555 HULET DRIVE
BLOOMFIELD HILLS, MICH.
P.O. BOX 824
48303 - 0824
PHONE: (248) 454-6300
FAX (1st. Floor): (248) 454-6312
FAX (2nd. Floor): (248) 454-6359
WEB SITE: http: // www.hrcengr.com

DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	T.S.W.
DRAWN	T.W.R.
CHECKED	T.S.W.
APPROVED	

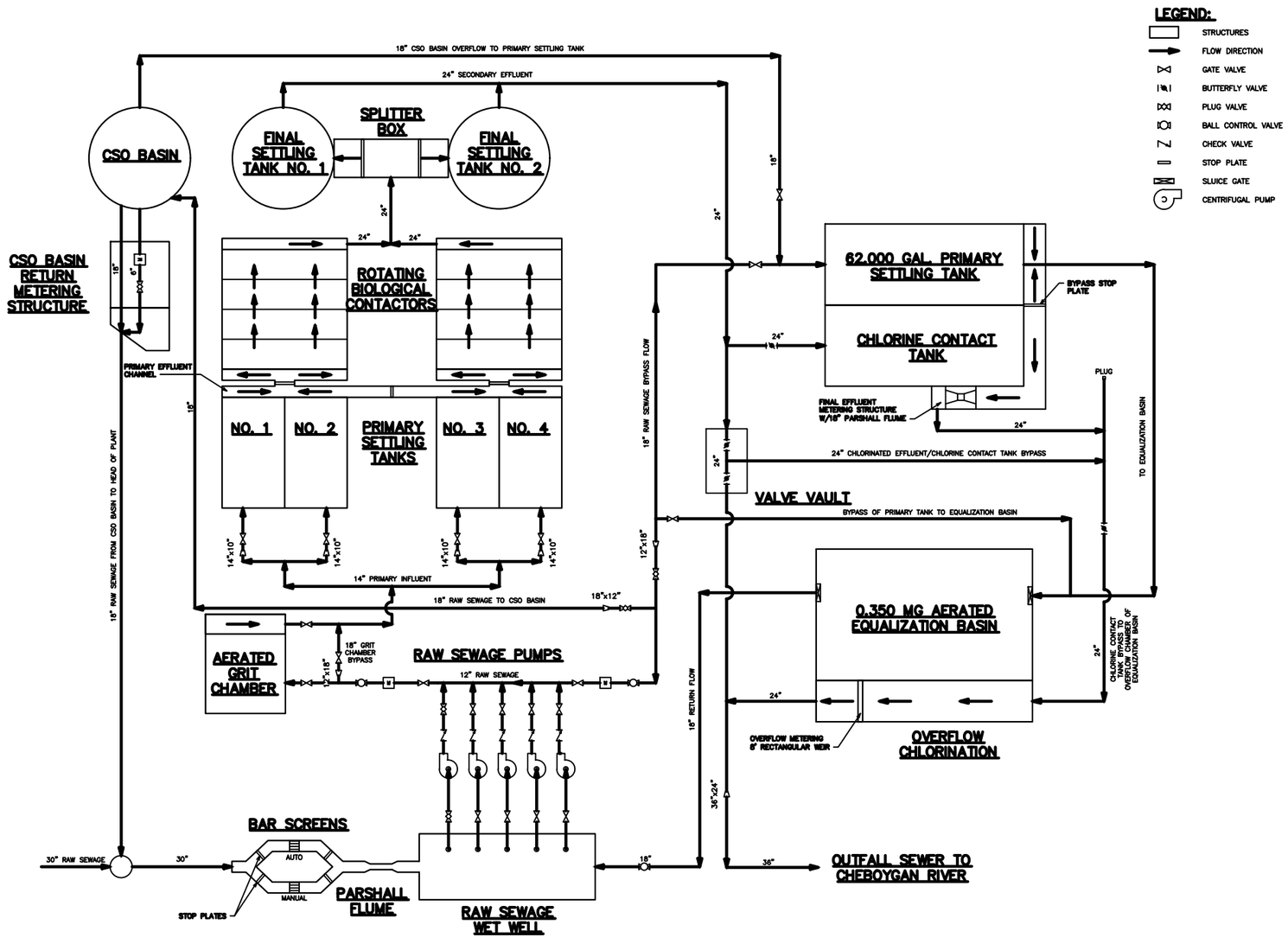
CITY OF CHEBOYGAN

CHEBOYGAN WASTE WATER TREATMENT FACIITY IMPROVEMENTS

NEW SITE PLAN

HRC JOB NO.	SCALE
20191206	AS NOTED
DATE	FIGURE NO.
June 2020	2-5 OF

DESIGNED *DSN* DRAWN *DRN* CHECKED *CHK* APPROVED *APR* *V:\201800\20180052\P\Cheboygan WWTP Flow Schematic\PID DWG\Liquid Flow Schematic.dwg*



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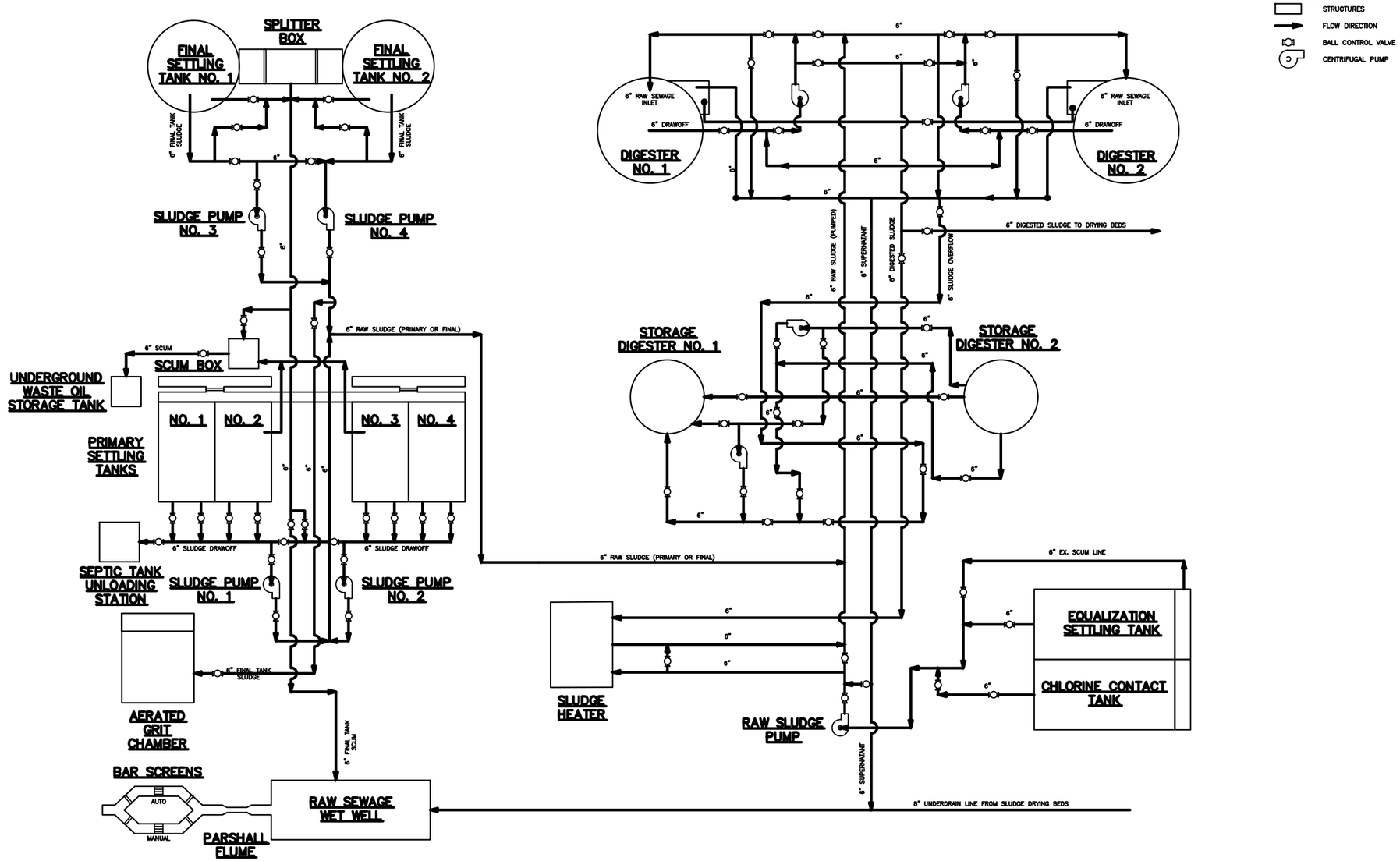
JOB NO. 20180052

DATE JUN 2019

CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
EXISTING PROCESS LIQUID FLOW SCHEMATIC

FIGURE NO. 2-6

DESIGNED *DSN* DRAWN *DRN* CHECKED *CHK* APPROVED *APR* *V:\201800\20180052\P\Cheboygan WWTP Flow Schematic\PID DWG\Sludge Flow Schematic.dwg*



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JOB NO. 20180052

DATE JUN 2019

CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
EXISTING PROCESS SOLIDS SCHEMATIC

FIGURE NO. 2-7

2.3.4 INFILTRATION AND INFLOW

In many cases, due to high infiltration and inflow (I/I) of stormwater/groundwater into the sewer system, the influent is so weak in organic strength that the treatment technology employed at the plant is simply not capable of removing 85% of the organic load. In fact, the effluent leaving the plant generally meets the permit conditions for the pollutants themselves, but not the overall 85% removal requirement. The City is pursuing removal of I/I from the sewer system, but until a significant portion is removed, it will be challenging to remove 85% of the influent organic load, regardless of what treatment technology is used at the plant. For the purpose of this study, we are assuming that enough I/I will be removed from the system to bring the peak flows back down to the design level of the pump station, 9 mgd. This includes providing treatment capacity for a 25 year, 24 hours storm event with the upgraded treatment plant and equalization storage.

2.4 NEED FOR PROJECT

The WWTP is not in compliance with the requirements of the NPDES permit due primarily to the weak organic concentrations of the incoming sewage and the requirement to remove 85% of this organic load. It also suffers from numerous process equipment breakdowns due to the age and condition of the equipment which contributes to this problem. The solids disposal system at the plant is inefficient and land application has proven very unreliable in recent years, resulting in a large buildup of solids being stored at the plant. There are orders of enforcement coming from the State to address these issues.

In addition, there are many facilities at the plant which have require replacement or rehabilitation in the immediate future, as described above. Without the construction of the proposed project, the water quality of the Cheboygan River/Lake Huron would be degraded as the plant may not be able to provide proper treatment.

SECTION 3.0 — ALTERNATIVE ANALYSIS

The alternatives considered for each improvement element are described in the following narratives. A technical basis has been developed for each improvement element and an economic comparison of alternatives completed where appropriate.

3.1 ALTERNATIVE 1 – UPGRADE WASTEWATER TREATMENT PLANT FACILITIES

A site plan showing much of the work proposed in Alternative 1 is shown in Figure 2-5.

3.1.1 Headworks

The equipment in the headworks will generally be replaced. This includes the five existing raw sewage pumps, the raw sewage piping and valves in the immediate vicinity of the pumps, the fine screen, which will be equipped with a new washer/compactor, the grit removal system which will be replaced with a new high efficiency grit system to be placed in the existing aerated grit tank, a new grit pump and a new grit classifier. This new equipment will generally be housed in the existing buildings/tanks with the exception of the new grit classifier which will require that an addition be built onto the existing screening room.

The capacity of all of these components will generally stay the same. The grit system is currently bypassed under storm flows for the flows routed to the CSO Basin and EQ tank. This is intended to continue, and the new grit system will be sized to maximize the capacity of the existing concrete tank with the new technology. Thus, the sizing will be as follows:

1. Fine screen: 9 mgd
2. Raw sewage pumping: 9 mgd
3. Grit removal: 6.5 mgd

As part of the new building addition for the grit equipment, we will also add an automated septage receiving system which will consist of a dump connection and controller that will allow the City to track the septage haulers for billing purposes. This will be included in the reworking of the driveway in this area.

3.1.2 Primary Tanks & Rotating Biological Contactors

The primary tanks and RBCs will no longer be needed for treatment as part of the project in favor of an extended aeration activated sludge system which will provide a better treatment efficiency at the same cost as upgrading the existing system. However, it is likely that the primary tanks can be repurposed for wet weather storage at minimal cost. In this case, the existing sludge removal equipment will be removed from the tanks given their condition. During a wet weather event, the City will be able to open a valve to direct flows to the primary tanks for storage. After the event, the tanks can be drained and manually cleaned if needed. In this case the only needed work to accommodate this is minimal new piping/valving into the tanks.

The tanks and building associated with the RBCs will generally be maintained and possibly repurposed in the future.

3.1.3 Oxidation Ditch

A new approximately 615,000 gallon oxidation ditch will be constructed to provide an extended aeration activated sludge system for biological secondary treatment at the plant. This new tank is tentatively shown to be constructed on the site north of the existing clarifiers (see Site plan). This location needs to be verified as there are wetlands, floodplain, and an old dump in the vicinity. We have included the floodplain and wetlands maps in the Appendices for reference. A detailed field survey will be done as part of design along with a wetland's delineation and Phase I environmental assessment to determine this. It may be that additional environmental permits (wetlands, floodplain) will need to be obtained to construct the oxidation ditch in this location due to these issues. If the proposed location for the new oxidation ditch becomes too difficult to construct due to these issues, it is intended to be moved and constructed in the location closer to the existing sludge drying beds.

The oxidation ditch will be equipped with mechanical rotors for aeration and to keep the mixed liquor in suspension. The rotors will be provided with a redundant rotor to meet firm aeration capacity requirements with the largest rotor out-of-service. They will also be equipped with variable frequency motors and a dissolved oxygen probe in the ditch to vary the speed of the rotors to only provide enough oxygen as needed for permit compliance. This will provide the ability to achieve biological phosphorus removal in the oxidation ditch also under most conditions.

A storm flow option will be provided on the ditch to route high, dilute flows to one of the ditch's channels to conserve the biomass in the mixed liquor in the remaining channels during high flow events. Given that no nitrification is required in the NPDES permit, the ditch will be designed for BOD removal only but will likely provide nitrification treatment most of the time, which will result in a lower level of ammonia being discharged from the plant.

3.1.4 Final Clarifiers/Sludge pumps

The two existing final clarifier mechanisms will each be replaced in-kind. New effluent launders and weirs will be constructed to replace the existing steel troughs and baffling will be added to enhance the settling efficiency. Algae covers will be added for maintenance efficiency. The tank will undergo structural inspection, and concrete repairs will be performed to correct cracks and other deterioration as required.

A new 60-foot diameter clarifier (12 foot SWD) will be constructed along with an addition to the flow split structure to accommodate this. This is being done because the existing two clarifiers do not meet 10 State Standards for settling area for peak flows, perform poorly under high flows (which contribute to the permit violations), and only having two clarifiers does not allow sufficient redundancy if one clarifier is out-of-service.

The existing two sludge pumps associated with each of the final clarifiers will be replaced with new pumps which will function as return activated sludge (RAS) pumps.

A new sludge pump building will be constructed for the new clarifier and will house two RAS pumps. The sludge wasting from the RAS discharge pipe to the refurbished sludge storage tank will be done in this new building with either a control valve and flow meter or two smaller waste sludge pumps. These will waste sludge to the refurbished sludge storage tank for temporary storage prior to dewatering.

3.1.5 Disinfection

A new UV disinfection system will be constructed to replace the existing chemical disinfection system. It will be built in the existing chlorine contact tank which will be modified to support the new UV system. A building will be constructed over the new system for operation and maintenance out of the weather.

3.1.6 Solids Dewatering

A new solids dewatering building will be constructed with a single dewatering press, sludge feed pump, polymer system, sludge cake disposal conveyance and room for one dumpster bay. The intended operation of the press for an average week is 6 hours per day, 3 days per week.

An existing sludge storage tank will be converted to a sludge holding tank for holding the waste activated sludge prior to dewatering. This tank will be equipped with aeration/mixing and will have capacity for approximately 5 days of storage. The remaining sludge storage tank and digesters will be maintained for emergency backup.

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3.1.7 Plant Driveway/Fence

The Plant driveway has deteriorated significantly in many areas and due to the proposed construction work will need to be repaved in its entirety. The site fence will also be replaced to enhance security of the site.

3.1.8 SCADA system.

The SCADA system at the plant will be upgraded to be able to monitor and control all of the new processes.

3.1.9 Motor Control Centers

The existing MCC-E and Power Panels C and D will be replaced along with a number of lighting panels.

3.1.10 Service Water System

The existing service water pumps and yard hydrants will be replaced. These facilities have reached the end of their useful life. The sizing of the pumps will likely need to increase to provide additional service water to the new solids dewatering process, which can be water-intensive.

3.1.11 Chemical Feed System

A skid-mounted Ferric Chloride feed system will be provided along with new piping, controls and day tank. This will continue to be fed from the existing two 5,000 gallon storage tanks.

3.1.12 Lab and Admin Building

The existing laboratory and Administration building at the plant will be rehabilitated to accommodate the existing plant operations. The remaining buildings on the site from the original 1970's construction will also be rehabilitated with brickwork rehab, door/windows/roof replacement.

3.2 ALTERNATIVE 2 – NO ACTION

If no action is taken, the existing plant equipment and structures will continue to degrade to the point that they will not be able to treat wastewater to comply with the requirements of the NPDES permit. In addition, there are numerous deficiencies in the existing plant which compromise worker safety and plant operations. These need to be corrected right away to avoid potential harm to workers, unnecessary upsets to the plant and failures to the facility.

3.3 ALTERNATIVE 3 – REGIONALIZATION

The regionalization alternative would involve completely decommissioning the WWTP and piping the waste to a facility with enough spare capacity to accommodate the flow. This would be technically challenging for the Cheboygan Plant as it is already a regional facility, providing wastewater treatment to both the City of Cheboygan and Inverness Township. Because of the size of the Plant, the closest facilities that may have enough spare capacity would be Alpena.

Sending flow from the Plant to Alpena would require the construction of over 80 miles of forcemain and multiple large pumping stations. The facility receiving the sewage would require modification of a similar scale to what is proposed. Acquiring the approval for the forcemain (which would cross county lines) would be time consuming and likely delay the project by several years. A tremendous amount of energy would be consumed by the pumping stations alone before treatment of the wastewater begins.

3.4 ALTERNATIVES ANALYSIS

Alternative 1 is the only feasible alternative which also meets the City's needs and prevents degradation in water quality. This is recommended as the selected alternative.

SECTION 4.0 — SELECTED ALTERNATIVES

4.1 PROPOSED FACILITIES

The proposed project consists of all renovations and improvements described previously under Alternative 1.

4.2 SCHEDULE

Provides a proposed schedule for the project.

Table 4-1. Proposed Design and Construction Schedule

Task	Engineering Services	Timeframe
WWTP Improvements	Design	2020 - 2021
	Construction	2021-2022

4.3 COST ESTIMATE

The estimated 2019 total project cost for the proposed project is $16,000,000. A detailed opinion of probable project cost is shown in Appendix E.

4.4 USER COSTS AND COST SHARING

The costs as described above will be paid for by user charges. Detailed user cost calculations are also shown in Appendix E. Table 4-2 below shows the estimated user cost for users associated with this project over a 20-year period for City of Cheboygan users.

Table 4-2. User Cost Summary

Description	Basis	Annual Cost	Monthly Cost
City of Cheboygan Obligation	See Appendix E	$978,507	
Residential User Contribution	40% of Flow	$391,403	$32,616
Project Cost per Residential User	1,822 Users	$214.82	$17.90

SECTION 5.0 — FISCAL SUSTAINABILITY PLAN

A fiscal sustainability plan will be developed for those facilities which are installed, replaced, or rehabilitated under this project. This will be done by building on the Plant's existing asset management plan. The Plant's asset inventory is a key part of their asset management plan and is shown in Appendix I (request from City).

The existing asset registry will be updated with information on facilities impacted by the project. Data for existing equipment will be updated with new model numbers and rehabilitation dates. New equipment will be added to the inventory. At the conclusion of the project the inventory will be fully updated ta accurately reflect the equipment that is currently installed at the site.

Condition and performance data will be updated as well. This will provide a benchmark to judge future performance by. Other critical mechanical equipment will have data such as full load amp draws recorded for this purpose as well. Condition information for existing items will be updated to reflect any rehabilitation work that was completed.

Useful life estimates will be updated for rehabilitated assets and solicited from manufacturers of newly installed assets. These estimates will be used to plan for future service and replacement costs. Operations and Maintenance manuals will be provided for all new equipment, along with onsite training. This will ensure that Plant staff have the knowledge necessary to perform maintenance and repairs. Water and energy conservation efforts will be implemented as a part of the fiscal sustainability plan as well.

SECTION 6.0 — ENVIRONMENTAL IMPACTS

6.1 GENERAL

The anticipated environmental impacts resulting from the construction of the selected plan include beneficial & adverse, short term & long term, and irreversible impacts. The following is a discussion of the environmental impacts of the selected plan.

6.1.1 BENEFICIAL AND ADVERSE IMPACTS

The Wastewater Treatment Plant (WWTP) is the City of Cheboygan's municipal wastewater treatment facility. The WWTP provides treatment to all commercial and domestic (residential) wastewater. Wastewater from homes and businesses is pumped from to the WWTP from the City of Cheboygan and Inverness Township and treats it in accordance with its NPDES permit with subsequent discharge to the Cheboygan River. Without the diligent work of WWTP employees to operate and maintain the facilities, the polluted water (sewage) would be discharged into the river.

Construction activities associated with the proposed WWTP improvements and proposed new oxidation tank will take place on the existing facilities. Construction and equipment manufacturing related jobs would be generated, and local contractors would have an equal opportunity to bid on the construction contracts.

Implementation of the Project Plan would create temporary disruption due to required construction. This includes noise & dust generated by the work and possible erosion of spoils from open excavation. The assessment of alternate solutions and sites for the proposed project included identification of any important resources of either historic or environmental value which are protected by law and should be avoided.

No registered contamination sites were found within the WWTP project area using the Department of Environment, Great Lakes, and Energy (EGLE) site contamination online mapper tool. Documentation of the research and results can be found in Appendix F.

6.1.2 SHORT-TERM AND LONG-TERM IMPACTS

The short-term adverse impacts associated with construction activities would be minimal, and mitigatable, in comparison to the resulting long-term beneficial impacts. Short-term impacts include traffic disruption, dust, and noise. No long-term negative impacts are anticipated. The long-term positive impacts include compliance with the NPDES permit requirements, removal of 85% organic load, improved efficiency at the plant, specifically the solids disposal system, and the ability to continue providing adequate treatment to protect water quality. These impacts also include improved processing at the plant and reduced wear on the plant equipment.

In addition, there are many facilities at the plant which have require replacement or rehabilitation in the immediate future, as described above. Without the construction of the proposed project, the water quality of the Cheboygan River/Lake Huron may be degraded as the plant may not be able to provide proper treatment.

6.1.3 IRREVERSIBLE IMPACTS

The investment in non-recoverable resources committed to the Project Plan would be traded off for the improved performance of the facilities during the life of the system. The commitment of resources includes public capital, energy, labor and unsalvageable materials. These non-recoverable resources would be foregone for the provision of the proposed improvements.

Construction accidents associated with this project may cause irreversible bodily injuries or death. Accidents may also cause damage to or destruction of equipment and other resources.

6.2 ANALYSIS OF IMPACTS

6.2.1 Direct Impacts

Local Air Quality

There will be minimal direct impacts on local air quality during the construction phases of these projects. Any effects on air quality will be due to dust and emissions from construction equipment.

Archeological, Historical or Cultural Resources

There are no impacts on archaeological, tribal, historical, or cultural resources due to this project.

Impacts Upon the Existing or Future Quality of Local Groundwater and Surface Waters

Construction will occur on the WWTP site, which is adjacent to the Cheboygan River and Lake Huron. No impact will be made to the River or Lake but appropriate measures will be taken during construction to avoid impact to these neighboring bodies of water. All necessary permits will be obtained prior to the proposed activities. There are no impacts anticipated to the local groundwater.

A detailed topographical survey will be conducted prior to construction to determine if the floodplain will be impacted by the project where construction of the oxidation tank will take place. All other construction and improvements will be made within existing facilities

Impacts Upon Sensitive Features

Since the work is expected to take place within the existing footprint of the WWTP, most construction will take place outside of the designated floodplain, wetland areas, or other sensitive areas. Some of the existing WWTP facilities are within the 100-year floodplain, including the proposed oxidation tank. However, all work on these facilities will take place within the building envelope, any work that takes place within floodplain limits, proper mitigation measures and permits will be obtained prior to the proposed activites..

Impacts Upon People and The Local Economy

Short-term impacts to people will occur during the construction phase. Increased construction traffic will occur in the localized area of the WWTP. All City of Cheboygan sanitary sewer users will experience beneficial long term impacts due to the level of service to which they expect being maintained by these improvements.

The local economy will be stimulated for contractors and suppliers of the materials, labor, and equipment necessary to construct the project.

Operational Impacts

The proposed project will improve the operational efficiency of the WWTP.

6.2.2 Indirect Impacts

Changes in Rate, Density, Or Type of Residential, Commercial, or Industrial Development and the Associated Transportation Changes

No changes are anticipated to the above.

Changes in Land Use

No changes are anticipated to the above. All improvements to the WWTP will be completed on the existing WWTP site.

Changes in Air or Water Quality Due to Facilitated Development

There will be no changes to air or water quality due to development. There will be no direct correlation to development as a result of this project.

Changes to The Natural Setting or Sensitive Features Resulting from Secondary Growth

There should be no changes to the natural setting or sensitive features resulting from secondary growth.

Impacts on Cultural, Human, Social and Economic Resources

No changes are anticipated to the above.

Impacts of Area Aesthetics

All of the proposed WWTP work will be completed on the existing site which is largely isolated from public view.

Resource Consumption Over the Useful Life of the Treatment Works, Especially the Generation of Solid Wastes

No changes are anticipated to the above.

6.2.3 Cumulative Impacts

Siltation

Siltation may occur during the construction phase of the project. Proper soil erosion and sedimentation control practices will be followed to reduce the impacts of siltation on surrounding areas.

Water Quality Impacts from Direct Discharges and Non-Point Sources

No water quality impacts are proposed by this project.

Indirect Impacts from Development

There should not be development as a result of this project.

The Impacts from Multiple Public Works Projects Occurring in the Same Vicinity

There will only be short term traffic impacts during the construction phase of this project and proper traffic control measures will be followed.

SECTION 7.0 — MITIGATION

7.1 SHORT-TERM, CONSTRUCTION-RELATED MITIGATION

Environmental disruption will occur during construction. Guidelines will be established for cover vegetation removal, dust control, traffic control and accident prevention. Once construction is completed those short-term effects will stop and the area will be returned to the original conditions.

The soil erosion impact would be mitigated through the contractor's required compliance with a program for control of soil erosion and sedimentation as specified in Part 91 of Michigan Act 451, P.A. of 1994. The use of soil erosion and sedimentation controls (i.e. straw bales, sedimentation basins, catch basin inserts, silt fencing, etc.) will protect the Cheboygan River and Lake Huron.

Careful considerations will be taken during the construction planning process to ensure that the plant remains in service while the improvements are underway. Construction equipment will be maintained in good condition to decrease noise. All access roads will be swept as necessary to avoid tracking sediment onto public roads.

7.2 MITIGATION OF LONG TERM IMPACTS

General construction activities will prohibit the disposal of soils in wetlands, floodplains, or other sensitive areas. Catch basins will be protected where earth changing activities will take place.

7.3 MITIGATION OF INDIRECT IMPACTS

The current trend in the City of Cheboygan is that the land use is largely dominated by residential properties. According to the City of Cheboygan's planning for land use, this will not change. Considering that a vast majority of the residents within the City limits already are connected to the wastewater system, a substantial increase in flow is not expected from within the City limits. However, the City is working on an updated zoning map that will include minor changes to zoning laws.

The City of Cheboygan's Master Plan and ordinances can be found on their websites.

SECTION 8.0 — PUBLIC PARTICIPATION

8.1 GENERAL

The Project Plan will be advertised in the local newspaper in June 2020 (refer to Appendix G for all public participation documentation.) Copies of the Project Plan will be placed at several locations throughout the City for the public's review. These locations include:

- City Hall, 403 N Huron Street, Cheboygan, MI 49721
- WWTP Sewer Department, 975 N Huron Street, Cheboygan, MI 49721

A formal public hearing will be held on July 14, 2020 to review the work associated with the proposed Project Plan. The hearing will review the information presented in the Project Plan, including estimated user costs and to receive comments and views of interested persons. Copies of correspondence related to agency notifications, as well as other relevant correspondence, will be included in Appendix G.

8.2 RESOLUTION

The City Council has not yet made a formal resolution regarding this Plan. A Council meeting following the public hearing scheduled for July 14, 2020. The resolution will be included in Appendix G.

8.3 PUBLIC HEARING

Representatives from the City and Hubbell, Roth & Clark, the City's Consulting Engineer, will be present at 6:00 P.M. for the public hearing scheduled at City Hall on July 14, 2020. Appendix G will include a transcribed copy of the public hearing, attendance list and a photocopy of the slides presented at the hearing.

Appendix A — City of Cheboygan's Current NPDES Permit

PERMIT NO. MI0020303

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act (33 U.S.C. 1251 *et seq*., as amended; the "Federal Act"); Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Part 41, Sewerage Systems, of the NREPA; and Michigan Executive Order 2011-1,

City of Cheboygan
403 North Huron Street
Cheboygan, MI 49721

is authorized to discharge from the **Cheboygan Wastewater Treatment Plant** located at

975 North Huron Street
Cheboygan, MI 49721

designated as **Cheboygan WWTP**

to the receiving water named the Cheboygan River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

This permit is based on a complete application submitted on March 21, 2016 as amended through October 10, 2016.

This permit takes effect on July 1, 2017. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0020303 (expiring October 1, 2016), which is hereby revoked upon the effective date of this permit.

This permit and the authorization to discharge shall expire at midnight, **October 1, 2021**. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department of Environmental Quality (Department) by **April 4, 2021**.

Issued _____

----------DRAFT----------
Christine Alexander, Manager
Permits Section
Water Resources Division

PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the NREPA, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

Annual Permit Fee Classification: Municipal Major, less than 10 MGD (Individual Permit)

In accordance with Section 324.3132 of the NREPA, the permittee shall make payment of an annual biosolids land application fee to the Department if the permittee land applies biosolids. In response to the Department's annual notice, the permittee shall submit the fee, which shall be postmarked no later than January 31 of each year.

CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Gaylord District Office of the Water Resources Division. The Gaylord District Office is located at 2100 West M-32, Gaylord, MI, 49735-9282, Telephone: 989-731-4920, Fax: 989-731-6181.

CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the Michigan Administrative Hearing System within the Michigan Department of Licensing and Regulatory Affairs, c/o the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Licensing and Regulatory Affairs may reject any petition filed more than 60 days after issuance as being untimely.

PART I

Section A. Limitations and Monitoring Requirements

1. Final Effluent Limitations, Monitoring Point 001A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 001A through Outfall 001. Outfall 001 discharges to the Cheboygan River at Latitude 45.65181, Longitude -84.4694. Such discharge shall be limited and monitored by the permittee as specified below.

	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Monitoring	Sample
Parameter	**Monthly**	**7-Day**	**Daily**	**Units**	**Monthly**	**7-Day**	**Daily**	**Units**	**Frequency**	**Type**
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	520	830	(report)	lbs/day	25	40	(report)	mg/l	5x Weekly	24-Hr Composite
Total Suspended Solids (TSS)	630	940	(report)	lbs/day	30	45	(report)	mg/l	5x Weekly	24-Hr Composite
Ammonia Nitrogen (as N)	---	---	---	lbs/day	(report)	---	(report)	mg/l	5x Weekly	24-Hr Composite
Total Phosphorus (as P)	21	---	---	lbs/day	1.0	---	(report)	mg/l	5x Weekly	24-Hr Composite
Fecal Coliform Bacteria	---	---	---	---	200	400	(report)	cts/100 ml	5x Weekly	Grab
Total Residual Chlorine	---	---	---	---	---	---	38	ug/l	5x Weekly	Grab
Available Cyanide	---	---	0.92	lbs/day	---	---	44	ug/l	Monthly	Grab
Total Copper	---	---	1.4	lbs/day	---	---	67	ug/l	Weekly	Grab
Total Mercury										
– Corrected	(report)	---	(report)	lbs/day	(report)	---	(report)	ng/l	Monthly	Calculation
– Uncorrected	---	---	---	---	---	---	(report)	ng/l	Monthly	Grab
– Field Duplicate	---	---	---	---	---	---	(report)	ng/l	Monthly	Grab
– Field Blank	---	---	---	---	---	---	(report)	ng/l	Monthly	Preparation
– Laboratory Method Blank		---	---	---	---	---	(report)	ng/l	Monthly	Preparation
	12-Month Rolling Average				**12-Month Rolling Average**					
Total Mercury	0.00013	---	---	lbs/day	6.0	---	---	ng/l	Monthly	Calculation
					Minimum Monthly		**Minimum Daily**			
$CBOD_5$ Minimum % Removal	---	---	---	---	85	---	(report)	%	Monthly	Calculation
TSS Minimum % Removal	---	---	---	---	85	---	(report)	%	Monthly	Calculation
					Minimum Daily		**Maximum Daily**			
pH	---	---	---	---	6.5	---	9.0	S.U.	5x Weekly	Grab

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Parameter	Maximum Limits for Quantity or Loading Monthly	7-Day	Daily	Units	Maximum Limits for Quality or Concentration Monthly	7-Day	Daily	Units	Monitoring Frequency	Sample Type
					Minimum Daily					
Dissolved Oxygen	---	---	---	---	4.0	---	---	mg/l	5x Weekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 2.5 MGD.

a. Narrative Standard
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.

b. Sampling Locations
Samples for $CBOD_5$, Total Suspended Solids, Ammonia Nitrogen, Available Cyanide, and Total Phosphorus shall be taken prior to disinfection. Samples for Dissolved Oxygen, Fecal Coliform Bacteria, Total Copper, Total Mercury, Total Residual Chlorine, and pH shall be taken after disinfection. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

c. Total Residual Chlorine
Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily concentration. Samples shall be analyzed in accordance with Part II.B.2. of this permit.

d. Percent Removal Requirements
These requirements shall be calculated based on the monthly (30-day) effluent $CBOD_5$ and Total Suspended Solids concentrations and the monthly influent concentrations for approximately the same period.

e. Analytical Method and Quantification Level for Available Cyanide
The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Available Cyanide shall be in accordance with EPA Method OIA-1677. The quantification level for Available Cyanide shall be 2.0 ug/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination. Upon approval of the Department, the permittee may use alternate analytical methods (for parameters with methods specified in 40 CFR 136, the alternate methods are restricted to those listed in 40 CFR 136).

f. Monitoring Frequency Reduction for Total Copper
After the submittal of 12 months of data, the permittee may request, in writing, Department approval of a reduction in monitoring frequency for Total Copper. This request shall contain an explanation as to why the reduced monitoring is appropriate. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.1. of this permit. The monitoring frequency for Total Copper shall not be reduced to less than quarterly. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.

g. Final Effluent Limitation for Total Mercury
The final limit for total mercury is the Discharge Specific Level Currently Achievable (LCA) based on a multiple discharger variance from the water quality-based effluent limit of 1.3 ng/l, pursuant to R 323.1103(9) of the Water Quality Standards. Compliance with the LCA shall be determined as a 12-month rolling average, the calculation of which may be done using blank-corrected sample results. The 12-month rolling average shall be determined by adding the present monthly average result to the preceding 11 monthly average results then

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dividing the sum by 12. For facilities with quarterly monitoring requirements for total mercury, quarterly monitoring shall be equivalent to 3 months of monitoring in calculating the 12-month rolling average. Facilities that monitor more frequently than monthly for total mercury must determine the monthly average result, which is the sum of the results of all data obtained in a given month divided by the total number of samples taken, in order to calculate the 12-month rolling average. If the 12-month rolling average for any month is less than or equal to the LCA, the permittee will be considered to be in compliance for total mercury for that month, provided the permittee is also in full compliance with the Pollutant Minimization Program for Total Mercury, set forth in Part I.A.3.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency for total mercury. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Department. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency for total mercury indicated in Part I.A.1. of this permit. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.

h. Total Mercury Testing and Additional Reporting Requirements
The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, "Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry," EPA-821-R-02-019, August 2002. The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The use of clean technique sampling procedures is required unless the permittee can demonstrate to the Department that an alternative sampling procedure is representative of the discharge. Guidance for clean technique sampling is contained in EPA Method 1669, "Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels," EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

In order to demonstrate compliance with EPA Method 1631E and EPA Method 1669, the permittee shall report, on the daily sheet, the analytical results of all field blanks and field duplicates collected in conjunction with each sampling event, as well as laboratory method blanks when used for blank correction. The permittee shall collect at least one (1) field blank and at least one (1) field duplicate per sampling event. If more than ten (10) samples are collected during a sampling event, the permittee shall collect at least one (1) additional field blank AND field duplicate for every ten (10) samples collected. Only field blanks or laboratory method blanks may be used to calculate a concentration lower than the actual sample analytical results (i.e., a blank correction). Only one (1) blank (field OR laboratory method) may be used for blank correction of a given sample result, and only if the blank meets the quality control acceptance criteria. If blank correction is not performed on a given sample analytical result, the permittee shall report under 'Total Mercury – Corrected' the same value reported under 'Total Mercury – Uncorrected.' The field duplicate is for quality control purposes only; its analytical result shall not be averaged with the sample result.

2. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from monitoring point 001A for the constituents identified below. This monitoring is an application requirement of 40 CFR 122.21(j), effective December 2, 1999. Testing shall be conducted in October 2017, May 2018, March 2019, and August 2020. Grab samples shall be collected for total mercury, available cyanide, total phenols, and the Volatile Organic Compounds identified below. For all other parameters, 24-hour composite samples shall be collected.

Test species for whole effluent toxicity monitoring shall include fathead minnow **and** either *Daphnia magna, Daphnia pulex* or *Ceriodaphnia dubia*. If the permittee has received Department approval to conduct acute toxicity testing using the more sensitive species identified in the toxicity database, the first three (3) tests required above may be performed using the more sensitive species. The last (4^{th}) test shall be conducted using two (2) test species. Testing and reporting procedures shall follow procedures contained in EPA/600/4-90/027/F, "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fifth

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Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 5 mg/l, the pH of the toxicity test shall be maintained at the pH of the effluent at the time of sample collection. Toxicity test data acceptability is contingent upon the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

For selected parameters required under this section, the quantification levels and analytical methods shall be as specified under Quantification Levels and Analytical Methods for Selected Parameters, below, unless a higher quantification level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The results of such additional monitoring shall be submitted with the application for reissuance (see the cover page of this permit for the application due date). The permittee shall notify the Department within 14 days of completing the monitoring for each month specified above in accordance with Part II.C.5. Additional reporting requirements are specified in Part II.C.11. The permittee shall report to the Department any whole effluent toxicity test results greater than 1.0 TU_A or 1.0 TU_C within five (5) days of becoming aware of the result. If, upon review of the analysis, it is determined that additional requirements are needed to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified by the Department in accordance with applicable laws and rules. Parameters that have been struck through are not required to be monitored for this permit condition.

Whole Effluent Toxicity

acute toxicity	~~chronic toxicity~~

Hardness

calcium carbonate

Metals (Total Recoverable), Cyanide and Total Phenols

antimony	arsenic	~~available cyanide~~	barium
beryllium	boron	cadmium	chromium
~~copper~~	lead	~~mercury~~	nickel
selenium	silver	thallium	zinc
total phenolic compounds			

Volatile Organic Compounds

acrolein	acrylonitrile	benzene	bromoform
carbon tetrachloride	chlorobenzene	chlorodibromomethane	chloroethane
2-chloroethylvinyl ether	chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene	1,2-dichloropropane
1,3-dichloropropylene	ethylbenzene	methyl bromide	methyl chloride
methylene chloride	1,1,2,2,-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene	vinyl chloride

Acid-Extractable Compounds

p-chloro-m-cresol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol
4,6-dinitro-o-cresol	2,4-dinitrophenol	2-nitrophenol	4-nitrophenol
Pentachlorophenol	phenol	2,4,6-trichlorophenol	

Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene	benzidine
benzo(a)anthracene	benzo(a)pyrene	3,4-benzofluoranthene	benzo(ghi)perylene
benzo(k)fluoranthene	bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate	2-chloronaphthalene
4-chlorophenyl phenyl ether	chrysene	di-n-butyl phthalate	di-n-octyl phthalate
dibenzo(a,h)anthracene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate	2,4-dinitrotoluene
2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	fluorene
Hexachlorobenzene	hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane

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indeno(1,2,3-cd)pyrene	isophorone	naphthalene	nitrobenzene
n-nitrosodi-n-propylamine	n-nitrosodimethylamine	n-nitrosodiphenylamine	phenanthrene
pyrene	1,2,4-trichlorobenzene		

Quantification Levels and Analytical Methods for Selected Parameters

Total Antimony	1 µg/l	1,2-Diphenylhydrazine	3.0 µg/l
Total Arsenic	1 µg/l	2,4,6-Trichlorophenol	5.0 µg/l
Total Barium	5 µg/l	2,4-Dinitrophenol	19 µg/l
Total Beryllium	1 µg/l	3,3'-Dichlorobenzidine	1.5 µg/l (EPA Method 605)
Total Boron	20 µg/l	Acrylonitrile	1.0 µg/l
Total Cadmium	0.2 µg/l	Benzidine	0.1 µg/l
Hexavalent Chromium	5 µg/l	Bis (2-Chloroethyl) Ether	1.0 µg/l
Total Chromium	10 µg/l	Di-N-Butyl Phthalate	9.0 µg/l
Total Copper	1 µg/l	Fluoranthene	1.0 µg/l
Available Cyanide	2 µg/l (EPA Method OIA 1677)	Hexachlorobenzene	0.01 µg/l (EPA Method 612)
Total Cyanide	5 µg/l	Hexachlorobutadiene	0.01 µg/l (EPA Method 612)
Total Lead	1 µg/l	Hexachlorocyclopentadiene	0.01 µg/l (EPA Method 612)
Total Lithium	10 µg/l	Hexachloroethane	5.0 µg/l
Total Mercury	0.5 ηg/l (EPA Method 1631E)	Phenanthrene	1.0 µg/l
Total Nickel	5 µg/l	Pentachlorophenol	1.8 µg/l
Total Selenium	1.0 µg/l	Vinyl Chloride	0.25 µg/l
Total Silver	0.5 µg/l		
Total Strontium	1000 µg/l		
Total Thallium	1 µg/l		
Total Zinc	10 µg/l		

3. Pollutant Minimization Program for Total Mercury

The goal of the Pollutant Minimization Program is to maintain the effluent concentration of total mercury at or below 1.3 ng/l. The permittee shall continue to implement the Pollutant Minimization Program approved on May 25, 2006, and modifications thereto, to proceed toward the goal. The Pollutant Minimization Program includes the following:

a. an annual review and semi-annual monitoring of potential sources of mercury entering the wastewater collection system;

b. a program for quarterly monitoring of influent and periodic monitoring of sludge for mercury; and

c. implementation of reasonable cost-effective control measures when sources of mercury are discovered. Factors to be considered include significance of sources, economic considerations, and technical and treatability considerations.

On or before March 31 of each year, the permittee shall submit a status report for the previous calendar year to the Department that includes 1) the monitoring results for the previous year, 2) an updated list of potential mercury sources, and 3) a summary of all actions taken to reduce or eliminate identified sources of mercury.

Any information generated as a result of the Pollutant Minimization Program set forth in this permit may be used to support a request to modify the approved program or to demonstrate that the Pollutant Minimization Program requirement has been completed satisfactorily.

A request for modification of the approved program and supporting documentation shall be submitted in writing to the Department for review and approval. The Department may approve modifications to the approved program (approval of a program modification does not require a permit modification), including a reduction in the frequency of the requirements under items a. and b.

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This permit may be modified in accordance with applicable laws and rules to include additional mercury conditions and/or limitations as necessary.

4. Untreated or Partially Treated Sewage Discharge Reporting and Testing Requirements

In accordance with Section 324.3112a of the NREPA, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

The permittee shall also annually contact municipalities, including the superintendent of a public drinking water supply with potentially affected intakes, whose waters may be affected by the permittee's discharge of combined sewage, and if those municipalities wish to be notified in the same manner as specified above, the permittee shall provide such notification. Such notification shall also include a daily newspaper in the county of the affected municipality.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "Report of Discharge Form" available via the internet at: http://www.deq.state.mi.us/csosso/, or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the NREPA, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

5. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact).

a. The facility contact shall be (or a duly authorized representative of this person):
- for a corporation, a principal executive officer of at least the level of vice president; or a designated representative if the representative is responsible for the overall operation of the facility from which the discharge originates, as described in the permit application or other NPDES form,
- for a partnership, a general partner,
- for a sole proprietorship, the proprietor, or
- for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.

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b. A person is a duly authorized representative only if:
- the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
- the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

6. Monthly Operating Reports

Part 41 of Act 451 of 1994 as amended, specifically Section 324.4106 and associated R 299.2953, requires that the permittee file with the Department, on forms prescribed by the Department, reports showing the effectiveness of the treatment facility operation and the quantity and quality of liquid wastes discharged into waters of the state.

Since this permit includes modifications to the monitoring requirements in the previously-issued permit, the previously approved treatment facility monitoring program shall be revised. Within thirty (30) days of the effective date of this permit, the permittee shall submit to the Department a revised treatment facility monitoring program to meet this requirement. Upon approval by the Department the permittee shall implement the revised treatment facility monitoring program. The reporting forms and guidance are available on the DEQ web site at http://www.michigan.gov/deq/0,1607,7-135-3313_44117---,00.html. The permittee may use alternative operating forms if they are consistent with the approved monitoring program. These forms shall be maintained on site and shall be provided to the Department for review upon request. These treatment facility monitoring records shall be maintained for a minimum of three years.

7. Asset Management

The permittee shall at all times properly operate and maintain all facilities (i.e., the sewer system and treatment works as defined in Part 41 of the NREPA), and control systems installed or used by the permittee to operate the sewer system and treatment works and achieve and maintain compliance with the conditions of this permit (also see Part II.D.3 of this permit). The requirements of an Asset Management Program function to achieve the goals of effective performance, adequate funding, and adequate operator staffing and training. Asset management is a planning process for ensuring that optimum value is gained for each asset and that financial resources are available to rehabilitate and replace those assets when necessary. Asset management is centered on a framework of five (5) core elements: the current state of the assets; the required sustainable level of service; the assets critical to sustained performance; the minimum life-cycle costs; and the best long-term funding strategy.

a. Asset Management Program Requirements
On or before January 1, 2018, the permittee shall submit to the Department an Asset Management Plan for review and approval. An approvable Asset Management Plan shall contain a schedule for the development and implementation of an Asset Management Program that meets the requirements outlined below in 1) – 4). A copy of any Asset Management Program requirements already completed by the permittee should be submitted as part of the Asset Management Plan. Upon approval by the Department the permittee shall implement the Asset Management Plan. (The permittee may choose to include the Operation and Maintenance Manual required under Part II.C.14. of this permit as part of their Asset Management Program).

1) *Maintenance Staff.* The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. The level of staffing needed shall be determined by taking into account the work involved

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in operating the sewer system and treatment works, planning for and conducting maintenance, and complying with this permit.

2) *Collection System Map.* The permittee shall complete a map of the sewer collection system it owns and operates. The map shall be of sufficient detail and at a scale to allow easy interpretation. The collection system information shown on the map shall be based on current conditions and shall be kept up-to-date and available for review by the Department. **Note: Items below referencing combined sewer systems are not applicable to separate sewer systems.** Such map(s) shall include but not be limited to the following:

a) all sanitary sewer lines and related manholes;

b) all combined sewer lines, related manholes, catch basins and CSO regulators;

c) all known or suspected connections between the sanitary sewer or combined sewer and storm drain systems;

d) all outfalls, including the treatment plant outfall(s), combined sewer treatment facility outfalls, untreated CSOs, and any known SSOs;

e) all pump stations and force mains;

f) the wastewater treatment facility(ies), including all treatment processes;

g) all surface waters (labeled);

h) other major appurtenances such as inverted siphons and air release valves;

i) a numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;

j) the scale and a north arrow;

k) the pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow; and

l) the manhole interior material, rim elevation (optional), and invert elevations.

3) *Inventory and assessment of fixed assets.* The permittee shall complete an inventory and assessment of operations-related fixed assets. Fixed assets are assets that are normally stationary (e.g., pumps, blowers, and buildings). The inventory and assessment shall be based on current conditions and shall be kept up-to-date and available for review by the Department.

a) The fixed asset inventory shall include the following:

(1) a brief description of the fixed asset, its design capacity (e.g., pump: 120 gallons per minute), its level of redundancy, and its tag number if applicable;

(2) the location of the fixed asset;

(3) the year the fixed asset was installed;

(4) the present condition of the fixed asset (e.g., excellent, good, fair, poor); and

(5) the current fixed asset (replacement) cost in dollars for year specified in accordance with approved schedules;

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b) The fixed asset assessment shall include a "Business Risk Evaluation" that combines the probability of failure of the fixed asset and the criticality of the fixed asset, as follows:

(1) Rate the probability of failure of the fixed asset on a scale of 1-5 (low to high) using criteria such as maintenance history, failure history, and remaining percentage of useful life (or years remaining);

(2) Rate the criticality of the fixed asset on a scale of 1-5 (low to high) based on the consequence of failure versus the desired level of service for the facility; and

(3) Compute the Business Risk Factor of the fixed asset by multiplying the failure rating from (1) by the criticality rating from (2).

4) *Operation, Maintenance & Replacement (OM&R) Budget and Rate Sufficiency for the Sewer System and Treatment Works.* The permittee shall complete an assessment of its user rates and replacement fund, including the following:

a) beginning and end dates of fiscal year;

b) name of the department, committee, board, or other organization that sets rates for the operation of the sewer system and treatment works;

c) amount in the permittee's replacement fund in dollars for year specified in accordance with approved schedules;

d) replacement fund strategy of all assets with a useful life of 20 years or less;

e) expenditures for maintenance, corrective action and capital improvement taken during the fiscal year;

f) OM&R budget for the fiscal year; and

g) rate calculation demonstrating sufficient revenues to cover OM&R expenses. If the rate calculation shows there are insufficient revenues to cover OM&R expenses, the permittee shall document, within three (3) fiscal years after submittal of the Asset Management Plan, that there is at least one rate adjustment that reduces the revenue gap by at least 10 percent. The permittee may prepare and submit an alternate plan, subject to Department approval, for addressing the revenue gap as required in Part I.A.7.a.4.g). The ultimate goal of the Asset Management Program is to ensure sufficient revenues to cover OM&R expenses.

b. Reporting

Following Department approval of the permittee's Asset Management Plan, the permittee shall develop a written report that summarizes asset management activities completed during the previous year and planned for the upcoming year. The written report shall be submitted to the Department on or before January 1 of each year. The written report shall include:

1) a description of the staffing levels maintained during the year;

2) a description of inspections and maintenance activities conducted and corrective actions taken during the previous year;

3) expenditures for collection system maintenance activities, treatment works maintenance activities, corrective actions, and capital improvement during the previous year;

4) a summary of assets/areas identified for inspection/action (including capital improvement) in the upcoming year based on the five (5) core elements and the Business Risk Factors;

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5) a maintenance budget and capital improvement budget for the upcoming year that take into account implementation of an effective Asset Management Program that meets the five (5) core elements;

6) an updated asset inventory based on the original submission; and

7) an updated OM&R budget with an updated rate schedule that includes the amount of insufficient revenues, if any.

8. Discharge Monitoring Report – Quality Assurance Study Program

The permittee shall participate in the Discharge Monitoring Report – Quality Assurance (DMR-QA) Study Program. The purpose of the DMR-QA Study Program is to annually evaluate the proficiency of all in-house and/or contract laboratory(ies) that perform, on behalf of the facility authorized to discharge under this permit, the analytical testing required under this permit. In accordance with Section 308 of the Clean Water Act (33 U.S.C. § 1318); and R 323.2138 and R 323.2154 of Part 21, Wastewater Discharge Permits, promulgated under Part 31 of the NREPA, participation in the DMR-QA Study Program is required for all major facilities, and for minor facilities selected for participation by the Department.

Annually and in accordance with DMR-QA Study Program requirements and submittal due dates, the permittee shall submit to the Michigan DMR-QA Study Program state coordinator all documentation required by the DMR-QA Study. DMR-QA Study Program participation is required only for the analytes required under this permit and only when those analytes are also identified in the DMR-QA Study.

If the permitted facility's status as a major facility should change, participation in the DMR-QA Study Program may be reevaluated. Questions concerning participation in the DMR-QA Study Program should be directed to the Michigan DMR-QA Study Program state coordinator.

All forms and instructions required for participation in the DMR-QA Study Program, including submittal due dates and state coordinator contact information, can be found at http://www.epa.gov/compliance/discharge-monitoring-report-quality-assurance-study-program.

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Section B. Storm Water Pollution Prevention

Section B. Storm Water Pollution Prevention is not required for this permit.

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Section C. Industrial Waste Pretreatment Program

1. Michigan Industrial Pretreatment Program

It is understood that the permittee does not receive the discharge of any type or quantity of substance which may cause interference with the operation of the treatment works; and, therefore, the permittee is not required to immediately develop an industrial pretreatment program in accordance with Section 307 of the Federal Act. The permittee is required to comply with Section 307 of the Federal Act upon accepting any such discharge for treatment. The permittee is required to notify the Department within thirty (30) days if any user discharges or proposes to discharge such wastes to the permittee for treatment.

Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:

a. pollutants which cause pass-through or interference;

b. pollutants which create a fire hazard or explosion hazard in the sewerage system, including, but not limited to wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

c. pollutants which will cause corrosive structural damage to the sewerage system; but in no case, discharges with pH less than 5.0, unless the works is specifically designed to accommodate such discharges;

d. solid or viscous pollutants in amounts which will cause obstruction to the flow in the sewerage system resulting in interference;

e. any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the treatment plant;

f. heat in amounts which will inhibit biological activity in the treatment plant resulting in interference; but in no case, heat in such quantities that the temperature at the treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Department, upon request of the permittee, approves alternate temperature limits;

g. pollutants which result in the presence of toxic gases, vapors or fumes within the sewerage system in a quantity that may cause acute worker health and safety problems; and

h. any trucked or hauled pollutants, except at discharge points designated by the permittee.

If information is gained by the Department that the permittee receives or is about to receive industrial wastes, then this permit may be modified in accordance with applicable laws and rules to incorporate the requirements of Section 307 of the Federal Act.

PART I

Section D. Residuals Management Program

1. Residuals Management Program for Land Application of Biosolids

The permittee is authorized to land-apply bulk biosolids or prepare bulk biosolids for land application in accordance with the permittee's approved Residuals Management Program (RMP) approved on April 5, 2002 and approved modifications thereto in accordance with the requirements established in R 323.2401 through R 323.2418 of the Michigan Administrative Code (Part 24 Rules). The approved RMP, and any approved modifications thereto, are enforceable requirements of this permit. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit. The Part 24 Rules can be obtained via the internet (http://www.michigan.gov/deq/ and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids laws and Rules Information which is under the Laws & Rules banner in the center of the screen).

a. Annual Report
On or before October 30 of each year, the permittee shall submit an annual report to the Department for the previous fiscal year of October 1 through September 30. The report shall be submitted electronically via the Department's MiWaters system at https://miwaters.deq.state.mi.us. At a minimum, the report shall contain:

1) a certification that current residuals management practices are in accordance with the approved RMP, or a proposal for modification to the approved RMP; and

2) a completed Biosolids Annual Report Form, available at https://miwaters.deq.state.mi.us.

b. Modifications to the Approved RMP
Prior to implementation of modifications to the RMP, the permittee shall submit proposed modifications to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

c. Record Keeping
Records required by the Part 24 Rules shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

d. Contact Information
RMP-related submittals shall be made to the Department.

PART II

Part II may include terms and /or conditions not applicable to discharges covered under this permit.

Section A. Definitions

Acute toxic unit (TU_A) means $100/LC_{50}$ where the LC_{50} is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

Annual monitoring frequency refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

Authorized public agency means a state, local, or county agency that is designated pursuant to the provisions of section 9110 of Part 91 of the NREPA to implement soil erosion and sedimentation control requirements with regard to construction activities undertaken by that agency.

Best management practices (BMPs) means structural devices or nonstructural practices that are designed to prevent pollutants from entering into storm water, to direct the flow of storm water, or to treat polluted storm water.

Bioaccumulative chemical of concern (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

Biosolids are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

Bulk biosolids means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

Certificate of Coverage (COC) is a document, issued by the Department, which authorizes a discharge under a general permit.

Chronic toxic unit (TU_C) means $100/MATC$ or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} are expressed as a percent effluent in the test medium.

Class B biosolids refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

Combined sewer system is a sewer system in which storm water runoff is combined with sanitary wastes.

PART II

Section A. Definitions

Daily concentration is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any *individual* sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any *individual* sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any *individual* sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Daily loading is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Daily monitoring frequency refers to a 24-hour day. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

Department means the Michigan Department of Environmental Quality.

Detection level means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

Discharge means the addition of any waste, waste effluent, wastewater, pollutant, or any combination thereof to any surface water of the state.

EC_{50} means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

Fecal coliform bacteria monthly
FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – Fecal coliform bacteria monthly is the geometric mean of all daily concentrations determined during a discharge event. Days on which no daily concentration is determined shall not be used to determine the calculated monthly value. The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR. If the period in which the discharge event occurred was partially in each of two months, the calculated monthly value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – Fecal coliform bacteria monthly is the geometric mean of all daily concentrations determined during a reporting month. Days on which no daily concentration is determined shall not be used to determine the calculated monthly value. The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR.

PART II

Section A. Definitions

Fecal coliform bacteria 7-day
FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – Fecal coliform bacteria 7-day is the geometric mean of the daily concentrations determined during any 7 consecutive days of discharge during a discharge event. If the number of daily concentrations determined during the discharge event is less than 7 days, the number of actual daily concentrations determined shall be used for the calculation. Days on which no daily concentration is determined shall not be used to determine the value. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day geometric mean value for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. If the 7-day period was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – Fecal coliform bacteria 7-day is the geometric mean of the daily concentrations determined during any 7 consecutive days in a reporting month. If the number of daily concentrations determined is less than 7, the actual number of daily concentrations determined shall be used for the calculation. Days on which no daily concentration is determined shall not be used to determine the value. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day geometric mean for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. The first calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

Flow-proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

General permit means a National Pollutant Discharge Elimination System permit issued authorizing a category of similar discharges.

Geometric mean is the average of the logarithmic values of a base 10 data set, converted back to a base 10 number.

Grab sample is a single sample taken at neither a set time nor flow.

IC_{25} means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

Illicit connection means a physical connection to a municipal separate storm sewer system that primarily conveys non-storm water discharges other than uncontaminated groundwater into the storm sewer; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.

Illicit discharge means any discharge to, or seepage into, a municipal separate storm sewer system that is not composed entirely of storm water or uncontaminated groundwater. Illicit discharges include non-storm water discharges through pipes or other physical connections; dumping of motor vehicle fluids, household hazardous wastes, domestic animal wastes, or litter; collection and intentional dumping of grass clippings or leaf litter; or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste directly into a separate storm sewer.

Individual permit means a site-specific NPDES permit.

Inlet means a catch basin, roof drain, conduit, drain tile, retention pond riser pipe, sump pump, or other point where storm water or wastewater enters into a closed conveyance system prior to discharge off site or into waters of the state.

PART II

Section A. Definitions

Interference is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference].

Land application means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

LC_{50} means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

Maximum acceptable toxicant concentration (MATC) means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

Maximum extent practicable means implementation of best management practices by a public body to comply with an approved storm water management program as required by a national permit for a municipal separate storm sewer system, in a manner that is environmentally beneficial, technically feasible, and within the public body's legal authority.

MGD means million gallons per day.

Monthly concentration is the sum of the daily concentrations determined during a reporting period divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during a reporting period. The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMR.

Monthly monitoring frequency refers to a calendar month. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

Municipal separate storm sewer means a conveyance or system of conveyances designed or used for collecting or conveying storm water which is not a combined sewer and which is not part of a publicly-owned treatment works as defined in the Code of Federal Regulations at 40 CFR 122.2.

PART II

Section A. Definitions

Municipal separate storm sewer system (MS4) means all separate storm sewers that are owned or operated by the United States, a state, city, village, township, county, district, association, or other public body created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law, such as a sewer district, flood control district, or drainage district, or similar entity, or a designated or approved management agency under Section 208 of the Federal Act that discharges to the waters of the state. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

National Pretreatment Standards are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

No observed adverse effect level (NOAEL) means the highest tested dose or concentration of a substance which results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

Noncontact cooling water is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

Nondomestic user is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

Outfall is the location at which a point source discharge enters the surface waters of the state.

Part 91 agency means an agency that is designated by a county board of commissioners pursuant to the provisions of section 9105 of Part 91 of the NREPA; an agency that is designated by a city, village, or township in accordance with the provisions of section 9106 of Part 91 of the NREPA; or the Department for soil erosion and sedimentation activities under Part 615, Part 631, or Part 632 pursuant to the provisions of section 9115 of Part 91 of the NREPA.

Part 91 permit means a soil erosion and sedimentation control permit issued by a Part 91 agency pursuant to the provisions of Part 91 of the NREPA.

Partially treated sewage is any sewage, sewage and storm water, or sewage and wastewater, from domestic or industrial sources that is treated to a level less than that required by the permittee's National Pollutant Discharge Elimination System permit, or that is not treated to national secondary treatment standards for wastewater, including discharges to surface waters from retention treatment facilities.

Point of discharge is the location of a point source discharge where storm water is discharged directly into a separate storm sewer system.

Point source discharge means a discharge from any discernible, confined, discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, or rolling stock. Changing the surface of land or establishing grading patterns on land will result in a point source discharge where the runoff from the site is ultimately discharged to waters of the state.

Polluting material means any material, in solid or liquid form, identified as a polluting material under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

POTW is a publicly owned treatment work.

PART II

Section A. Definitions

Pretreatment is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.
Public (as used in the MS4 individual permit) means all persons who potentially could affect the authorized storm water discharges, including, but not limited to, residents, visitors to the area, public employees, businesses, industries, and construction contractors and developers.

Public body means the United States; the state of Michigan; a city, village, township, county, school district, public college or university, or single-purpose governmental agency; or any other body which is created by federal or state statute or law.

Qualified Personnel means an individual who meets qualifications acceptable to the Department and who is authorized by an Industrial Storm Water Certified Operator to collect the storm water sample.

Qualifying storm event means a storm event causing greater than 0.1 inch of rainfall and occurring at least 72 hours after the previous measurable storm event that also caused greater than 0.1 inch of rainfall. Upon request, the Department may approve an alternate definition meeting the condition of a qualifying storm event.

Quantification level means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

Quarterly monitoring frequency refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

Regulated area means the permittee's urbanized area, where urbanized area is defined as a place and its adjacent densely-populated territory that together have a minimum population of 50,000 people as defined by the United States Bureau of the Census and as determined by the latest available decennial census.

Secondary containment structure means a unit, other than the primary container, in which significant materials are packaged or held, which is required by State or Federal law to prevent the escape of significant materials by gravity into sewers, drains, or otherwise directly or indirectly into any sewer system or to the surface or ground waters of this state.

Separate storm sewer system means a system of drainage, including, but not limited to, roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels, which is not a combined sewer where storm water mixes with sanitary wastes, and is not part of a POTW.

Significant industrial user is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

PART II

Section A. Definitions

Significant materials Significant Materials means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (see 40 CFR 372.65); any chemical the facility is required to report pursuant to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA); polluting materials as identified under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111 of the NREPA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills and significant leaks means any release of a polluting material reportable under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

Special-use area means secondary containment structures required by state or federal law; lands on Michigan's List of Sites of Environmental Contamination pursuant to Part 201, Environmental Remediation, of the NREPA; and/or areas with other activities that may contribute pollutants to the storm water for which the Department determines monitoring is needed.

Stoichiometric means the quantity of a reagent calculated to be necessary and sufficient for a given chemical reaction.

Storm water means storm water runoff, snow melt runoff, surface runoff and drainage, and non-storm water included under the conditions of this permit.

Storm water discharge point is the location where the point source discharge of storm water is directed to surface waters of the state or to a separate storm sewer. It includes the location of all point source discharges where storm water exits the facility, including *outfalls* which discharge directly to surface waters of the state, and *points of discharge* which discharge directly into separate storm sewer systems.

SWPPP means the Storm Water Pollution Prevention Plan prepared in accordance with this permit.

Tier I value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

Tier II value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

Total maximum daily loads (TMDLs) are required by the Federal Act for waterbodies that do not meet water quality standards. TMDLs represent the maximum daily load of a pollutant that a waterbody can assimilate and meet water quality standards, and an allocation of that load among point sources, nonpoint sources, and a margin of safety.

Toxicity reduction evaluation (TRE) means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

Water Quality Standards means the Part 4 Water Quality Standards promulgated pursuant to Part 31 of the NREPA, being R 323.1041 through R 323.1117 of the Michigan Administrative Code.

Weekly monitoring frequency refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

WWSL is a wastewater stabilization lagoon.

WWSL discharge event is a discrete occurrence during which effluent is discharged to the surface water up to 10 days of a consecutive 14 day period.

PART II

Section A. Definitions

3-portion composite sample is a sample consisting of three equal-volume grab samples collected at equal intervals over an 8-hour period.

7-day concentration
FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – The 7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days of discharge during a WWSL discharge event divided by the number of daily concentrations determined. If the number of daily concentrations determined during the WWSL discharge event is less than 7 days, the number of actual daily concentrations determined shall be used for the calculation. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the WWSL discharge event in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMR. If the WWSL discharge event was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – The 7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. If the number of daily concentrations determined is less than 7, the actual number of daily concentrations determined shall be used for the calculation. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations in the reporting month. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMR. The first 7-day calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

7-day loading
FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – The 7-day loading is the sum of the daily loadings determined during any 7 consecutive days of discharge during a WWSL discharge event divided by the number of daily loadings determined. If the number of daily loadings determined during the WWSL discharge event is less than 7 days, the number of actual daily loadings determined shall be used for the calculation. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the WWSL discharge event in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMR. If the WWSL discharge event was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred

FOR ALL OTHER DISCHARGES – The 7-day loading is the sum of the daily loadings determined during any 7 consecutive days in a reporting month divided by the number of daily loadings determined. If the number of daily loadings determined is less than 7, the actual number of daily loadings determined shall be used for the calculation. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations in the reporting month. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMR. The first 7-day calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

24-hour composite sample is a flow-proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period. A time-proportioned composite sample may be used upon approval of the Department if the permittee demonstrates it is representative of the discharge.

PART II

Section B. Monitoring Procedures

1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 – Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in this permit. **Test procedures used shall be sufficiently sensitive to determine compliance with applicable effluent limitations**. Requests to use test procedures not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Resources Division, Michigan Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan, 48909-7958. The permittee may use such procedures upon approval.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Department.

PART II

Section C. Reporting Requirements

1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

2. Submittal Requirements for Self-Monitoring Data

Part 31 of the NREPA (specifically Section 324.3110(7)); and R 323.2155(2) of Part 21, Wastewater Discharge Permits, promulgated under Part 31 of the NREPA, allow the Department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self-Monitoring," the permittee shall submit self-monitoring data via the Department's MiWaters system.

The permittee shall utilize the information provided on the MiWaters website, located at https://miwaters.deq.state.mi.us, to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the Department no later than the 20th day of the month following each month of the authorized discharge period(s). The permittee may be allowed to submit the electronic forms after this date if the Department has granted an extension to the submittal date.

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page (or otherwise authorized by the Department in accordance with the provisions of this permit) to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Department. Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Department, on or before January 10th (April 1st for animal feeding operation facilities) of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge. With this annual certification, the permittee shall submit a summary of the previous year's monitoring data. The summary shall include maximum values for samples to be reported as daily maximums and/or monthly maximums and minimum values for any daily minimum samples.

Retained self-monitoring may be denied to a permittee by notification in writing from the Department. In such cases, the permittee shall submit self-monitoring data in accordance with Part II.C.2., above. Such a denial may be rescinded by the Department upon written notification to the permittee. Reissuance or modification of this permit or reissuance or modification of an individual permittee's authorization to discharge shall not affect previous approval or denial for retained self-monitoring unless the Department provides notification in writing to the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

PART II

Section C. Reporting Requirements

Monitoring required pursuant to Part 41 of the NREPA or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a *written* notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the NREPA, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

a. 24-Hour Reporting
Any noncompliance which may endanger health or the environment (including maximum and/or minimum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.

b. Other Reporting
The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times, or, if not yet corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the second page of this permit (or, if this is a general permit, on the COC); or, if the notice is provided after regular working hours, call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from **out-of-state** dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventive measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

PART II

Section C. Reporting Requirements

8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24 hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;

b. that the permitted wastewater treatment facility was, at the time, being properly operated and maintained (note that an upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation); and

c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

9. Bypass Prohibition and Notification

a. Bypass Prohibition
Bypass is prohibited, and the Department may take an enforcement action, unless:

1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and

3) the permittee submitted notices as required under 9.b. or 9.c. below.

b. Notice of Anticipated Bypass
If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 9.a. above.

c. Notice of Unanticipated Bypass
The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the second page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.

PART II

Section C. Reporting Requirements

d. Written Report of Bypass
A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.

e. Bypass Not Exceeding Limitations
The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.11. of this permit.

f. Definitions

1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

10. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of R 323.1098 and R 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

11. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, as soon as possible but no later than 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the first page of this permit, for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

PART II

Section C. Reporting Requirements

12. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under R 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.10.; and 4) the action or activity will not require notification pursuant to Part II.C.11. Following such notice, the permit or, if applicable, the facility's COC may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

14. Operations and Maintenance Manual

For wastewater treatment facilities that serve the public (and are thus subject to Part 41 of the NREPA), Section 4104 of Part 41 and associated Rule 2957 of the Michigan Administrative Code allow the Department to require an Operations and Maintenance (O&M) Manual from the facility. An up-to-date copy of the O&M Manual shall be kept at the facility and shall be provided to the Department upon request. The Department may review the O&M Manual in whole or in part at its discretion and require modifications to it if portions are determined to be inadequate.

At a minimum, the O&M Manual shall include the following information: permit standards; descriptions and operation information for all equipment; staffing information; laboratory requirements; record keeping requirements; a maintenance plan for equipment; an emergency operating plan; safety program information; and copies of all pertinent forms, as-built plans, and manufacturer's manuals.

Certification of the existence and accuracy of the O&M Manual shall be submitted to the Department at least sixty days prior to start-up of a new wastewater treatment facility. Recertification shall be submitted sixty days prior to start-up of any substantial improvements or modifications made to an existing wastewater treatment facility.

PART II

Section C. Reporting Requirements

15. Signatory Requirements

All applications, reports, or information submitted to the Department in accordance with the conditions of this permit and that require a signature shall be signed and certified as described in the Federal Act and the NREPA.

The Federal Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

The NREPA (Section 3115(2)) provides that a person who at the time of the violation knew or should have known that he or she discharged a substance contrary to this part, or contrary to a permit, COC, or order issued or rule promulgated under this part, or who intentionally makes a false statement, representation, or certification in an application for or form pertaining to a permit or COC or in a notice or report required by the terms and conditions of an issued permit or COC, or who intentionally renders inaccurate a monitoring device or record required to be maintained by the Department, is guilty of a felony and shall be fined not less than $2,500.00 or more than $25,000.00 for each violation. The court may impose an additional fine of not more than $25,000.00 for each day during which the unlawful discharge occurred. If the conviction is for a violation committed after a first conviction of the person under this subsection, the court shall impose a fine of not less than $25,000.00 per day and not more than $50,000.00 per day of violation. Upon conviction, in addition to a fine, the court in its discretion may sentence the defendant to imprisonment for not more than 2 years or impose probation upon a person for a violation of this part. With the exception of the issuance of criminal complaints, issuance of warrants, and the holding of an arraignment, the circuit court for the county in which the violation occurred has exclusive jurisdiction. However, the person shall not be subject to the penalties of this subsection if the discharge of the effluent is in conformance with and obedient to a rule, order, permit, or COC of the Department. In addition to a fine, the attorney general may file a civil suit in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement by the state resulting from the violation.

16. Electronic Reporting

Upon notice by the Department that electronic reporting tools are available for specific reports or notifications, the permittee shall submit electronically all such reports or notifications as required by this permit.

PART II

Section D. Management Responsibilities

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit, more frequently than, or at a level in excess of, that authorized, shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the NREPA and/or the Federal Act and constitutes grounds for enforcement action; for permit or Certificate of Coverage (COC) termination, revocation and reissuance, or modification; or denial of an application for permit or COC renewal.

It shall not be a defense for a 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.

2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the NREPA. Permittees authorized to discharge storm water shall have the storm water treatment and/or control measures under direct supervision of a storm water operator certified by the Department, as required by Section 3110 of the NREPA.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or

b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

PART II

Section D. Management Responsibilities

6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the NREPA.

7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the NREPA, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department, or the Regional Administrator, upon the presentation of credentials and, for animal feeding operation facilities, following appropriate biosecurity protocols:

a. to enter upon the permittee's premises where an effluent source is located or any place in which records are required to be kept under the terms and conditions of this permit; and

b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (R 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit, shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the NREPA.

10. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or the facility's COC, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

PART II

Section E. Activities Not Authorized by This Permit

1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the NREPA.

2. POTW Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities at a POTW. Approval for the construction or modification of any physical structures or facilities at a POTW shall be by permit issued under Part 41 of the NREPA.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

6. Property Rights

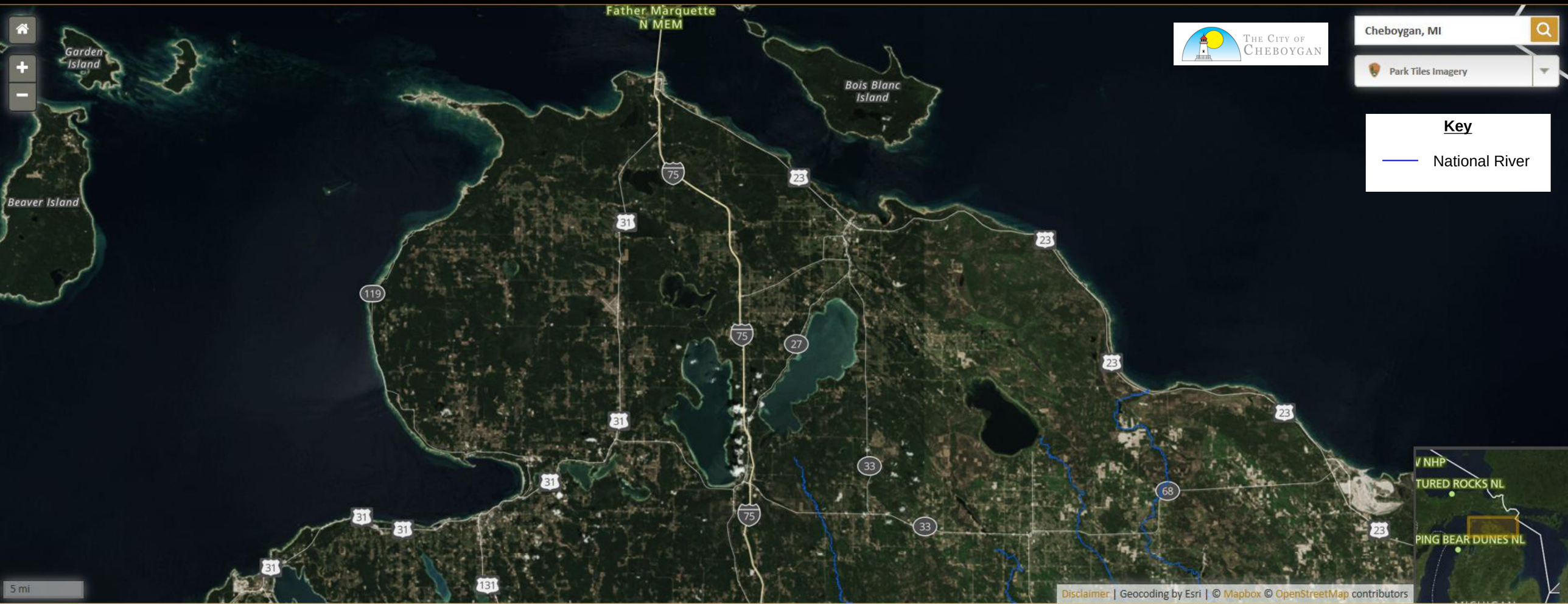
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

Appendix B — Nationwide Rivers Inventory

Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

National Park Service
U.S. Department of the Interior



Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

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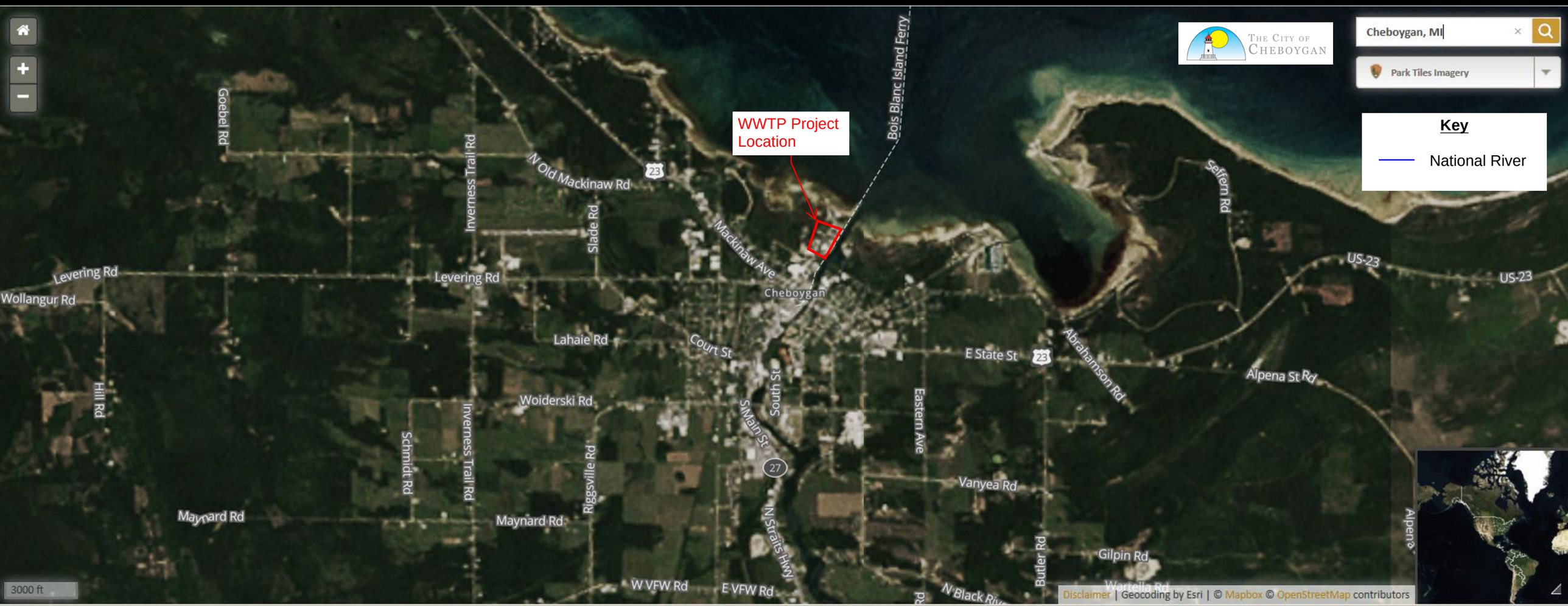


Appendix C — Web Soil Survey Results

Search

Area of Interest

Open All | Close All

AOI Properties

Clear AOI

AOI Information

Name

Map Unit Symbols
- (•) Use Soil Survey Area Map Unit Symbols
- ( ) Use National Map Unit Symbols

Area (acres)

Cheboygan County, Michigan	4,398
No soil survey area	58.4
Total	4,456

Soil Data Available from Web Soil Survey

Cheboygan County, Michigan (MI031)

Data Availability	Tabular and Spatial, complete
Tabular Data	Version 14, Sep 16, 2019
Spatial Data	Version 5, Sep 16, 2019

Clear AOI

Import AOI

Export AOI

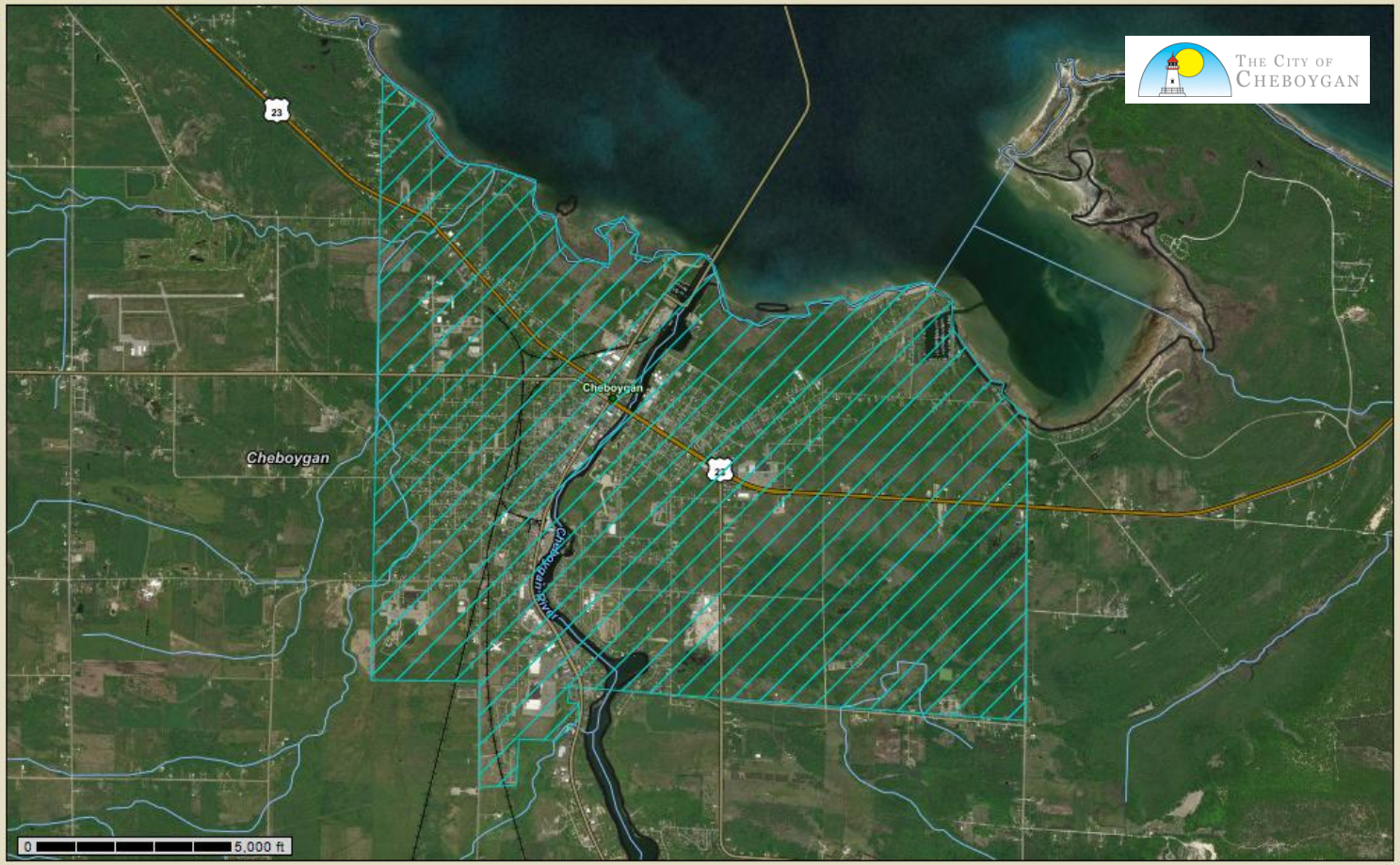
Quick Navigation

- Address
- State and County
- Soil Survey Area
- Latitude and Longitude or Current Location
- PLSS (Section, Township, Range)
- Bureau of Land Management
- Department of Defense
- Forest Service
- National Park Service
- Hydrologic Unit

Area of Interest Interactive Map

Legend

View Extent: Contiguous U.S. | Scale: (not to scale)



Search

Suitabilities and Limitations Ratings

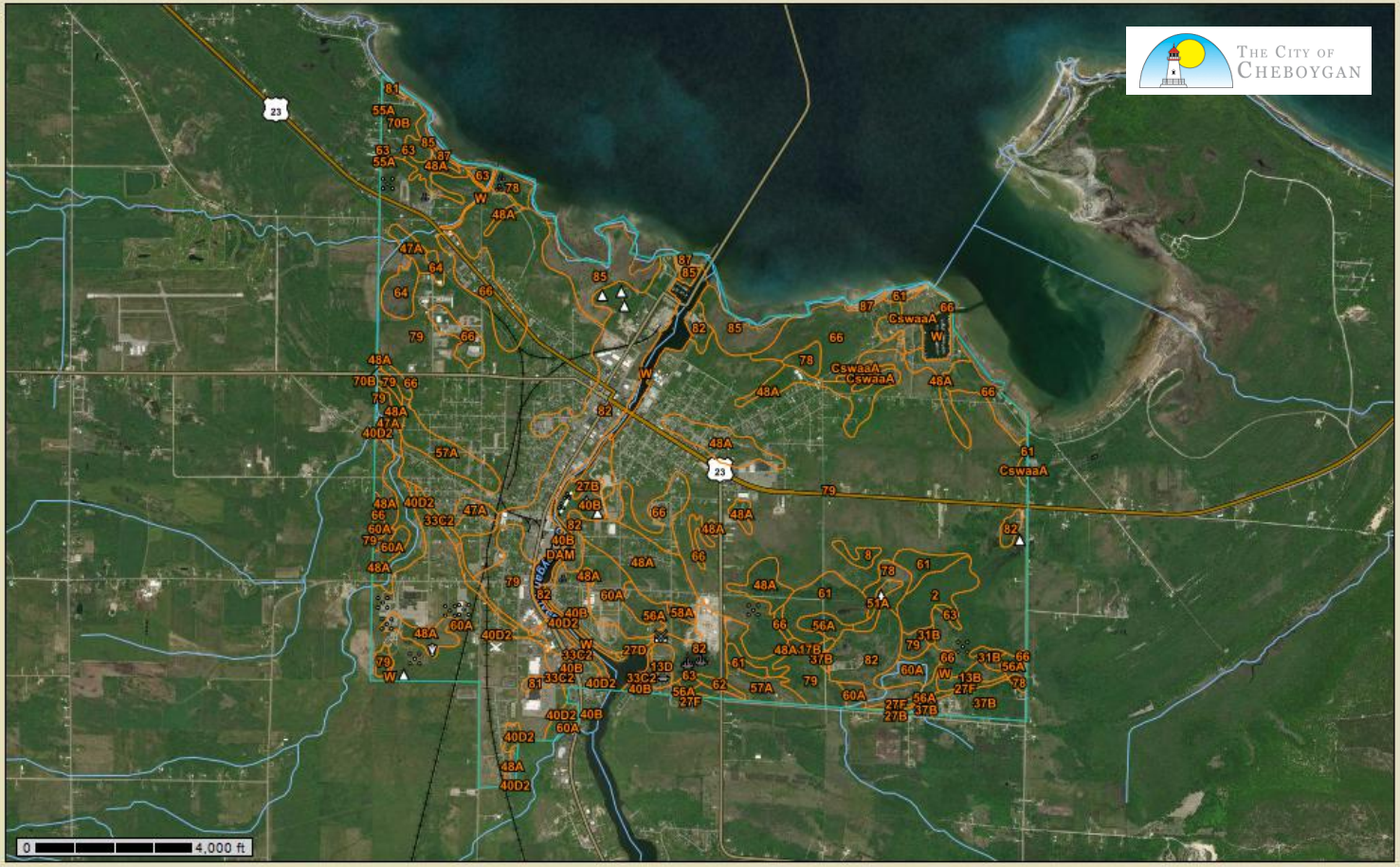
Open All | Close All

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Soil Health
- Vegetative Productivity
- Waste Management
- Water Management

Legend

Soil Map

Scale (not to scale)



Search

Map Unit Legend

	muck		
62	Wheatley loamy sand	6.0	0.1%
63	Brevort mucky loamy sand	20.4	0.5%
64	Burleigh mucky sand	27.5	0.6%
66	Pinconning mucky loamy sand	259.8	5.8%
70B	Au Gres-Roscommon complex, 1 to 4 percent slopes	31.0	0.7%
78	Angelica mucky sandy loam	46.6	1.0%
79	Charity fine sandy loam	1,982.1	44.5%
81	Udipsamments, nearly level to steep	7.1	0.2%
82	Udorthents, loamy, nearly level to steep	376.4	8.4%
85	Histosols and Aquents, ponded	113.5	2.5%
87	Beaches	6.1	0.1%
CswaaA	Croswell sand, 0 to 6 percent slopes	44.5	1.0%
DAM	Dam	0.3	0.0%
W	Water	114.7	2.6%
Totals for Area of Interest		**4,456.2**	**100.0%**

Legend

Soil Map

Scale (not to scale)

Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:15,800. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Map Unit Legend

Cheboygan County, Michigan (MI031)

Cheboygan County, Michigan (MI031)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Lupton muck, 0 to 1 percent slopes	44.8	1.0%
8	Tawas peat	8.6	0.2%
13B	Rubicon sand, 0 to 6 percent slopes	14.2	0.3%
13D	Rubicon sand, 6 to 18 percent slopes	13.5	0.3%
17B	Wallace sand, 0 to 6 percent slopes	6.4	0.1%
27B	Cheboygan loamy sand, 0 to 6 percent slopes	7.3	0.2%
27D	Cheboygan loamy sand, 12 to 30 percent slopes	3.2	0.1%
27F	Cheboygan loamy sand, 30 to 50 percent slopes	11.3	0.3%
31B	Nadeau extremely gravelly loamy sand, 1 to 9 percent slopes	9.6	0.2%
33C2	Ontonagon silty clay loam, 6 to 18 percent slopes, eroded	32.5	0.7%
37B	Emmet sandy loam, 1 to 6 percent slopes	45.3	1.0%
40B	Ontonagon silt loam, 0 to 4 percent slopes	105.1	2.4%
40D2	Ontonagon silty clay, 12 to 25 percent slopes, eroded	79.8	1.8%
47A	Ingalls loamy sand, 0 to 3 percent slopes	38.1	0.9%
48A	Allendale sand, 0 to 3 percent slopes	313.2	7.0%
51A	Otisco sand, 0 to 3 percent slopes	9.2	0.2%
55A	Solona sandy loam, 0 to 3 percent slopes	1.2	0.0%
56A	Riggsville loamy sand, 0 to 3 percent slopes	59.6	1.3%
57A	Brimley very fine sandy loam, 0 to 3 percent slopes	66.4	1.5%
58A	Alstad loam, 0 to 3 percent slopes	5.6	0.1%
60A	Rudyard loam, 0 to 3 percent slopes	402.9	9.0%
61	Roscommon muck	84.0	1.9%

Map Unit Legend

Map Unit Legend

62	Wheatley loamy sand	6.0	0.1%
63	Brevort mucky loamy sand	20.4	0.5%
64	Burleigh mucky sand	27.5	0.6%
66	Pinconning mucky loamy sand	259.8	5.8%
70B	Au Gres-Roscommon complex, 1 to 4 percent slopes	31.0	0.7%
78	Angelica mucky sandy loam	46.6	1.0%
79	Charity fine sandy loam	1,982.1	44.5%
81	Udipsamments, nearly level to steep	7.1	0.2%
82	Udorthents, loamy, nearly level to steep	376.4	8.4%
85	Histosols and Aquents, ponded	113.5	2.5%
87	Beaches	6.1	0.1%
CswaaA	Croswell sand, 0 to 6 percent slopes	44.5	1.0%
DAM	Dam	0.3	0.0%
W	Water	114.7	2.6%
Totals for Area of Interest		**4,456.2**	**100.0%**

Appendix D — MNFI Threatened/Endangered Plants and Animals

1 Find location

2 Define area

3 Confirm

Verify the area where project activities will occur

Modify the shape by clicking and dragging the vertices or clicking on a solid vertex to remove it

AREA: 14.90 acres

CONTINUE

START OVER

The City of Cheboygan

Layers ADD

Explore location

LOCAL OFFICE **MICHIGAN ESFO**

LOCATION
Cheboygan County, Michigan
CHANGE LOCATION

Resources

ENDANGERED SPECIES	10
MIGRATORY BIRDS	3
FACILITIES	
WETLANDS	✔

PRINT RESOURCE LIST

What's next?

Define a project at this location to evaluate potential impacts, get an official species list, and make species determinations.

DEFINE PROJECT

Endangered species

Listed species 1 and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries 2).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

Additional information on endangered species data is provided below.

The following species are potentially affected by activities in this location:

THUMBNAILS | LIST — SPECIES GUIDELINES

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis	Threatened

Birds

NAME	STATUS
Piping Plover CH Charadrius melodus	Endangered
Red Knot Calidris canutus rufa	Threatened

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) Sistrurus catenatus	Threatened

Insects

NAME	STATUS
Hungerford's Crawling Water Beetle Brychius hungerfordi	Endangered

Flowering Plants

NAME	STATUS
Dwarf Lake Iris Iris lacustris	Threatened
Eastern Prairie Fringed Orchid Platanthera leucophaea	Threatened
Houghton's Goldenrod Solidago houghtonii	Threatened
Michigan Monkey-flower Mimulus michiganensis	Endangered
Pitcher's Thistle Cirsium pitcheri	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

- **What does IPaC use to generate the list of endangered species potentially occurring in my specified location?**
- **Do these lists represent all species to be considered at this location?**
- **What is an 'official species list' and why would I need one?**

Appendix E — Project Costs Estimates

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT:	**Cheboygan WWTP**	DATE:	**6/19/2019**
LOCATION:	**Cheboygan, MI**	PROJECT NO.	**20180052**
BASIS FOR ESTIMATE:	[x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL	ESTIMATOR:	**TSW**
WORK:	**WWTP Improvements - Cost Summary**	CHECKED BY:	**TSW**
		CURRENT ENR:	**11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Sitework, Buildings, Electrical & Miscellaneous	1	LS	$ 2,004,600	$ 2,004,600
2	Headworks	1	LS	$ 2,332,500	$ 2,332,500
3	Oxidation Ditch and RAS	1	LS	$ 2,450,500	$ 2,450,500
4	Disinfection (UV)	1	LS	$ 613,750	$ 613,750
5	Solids Handling	1	LS	$ 1,282,500	$ 1,282,500
6	Final Clarifiers & RAS PS	1	LS	$ 1,798,000	$ 1,798,000
7	Contractor General Conditions (10%)	1	LS		$ 1,048,185
8	Construction Cost Subtotal	1	LS		$ 11,530,035
9	Engineering, Legal and Contingencies	1	LS		$ 4,469,965
	TOTAL PROJECT COST				***$ 16,000,000***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT:	**Cheboygan WWTP**	DATE:	**6/19/2019**
LOCATION:	**Cheboygan, MI**	PROJECT NO.	**20180052**
BASIS FOR ESTIMATE:	[x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL	ESTIMATOR:	**TSW**
WORK:	**Sitework, Building Improvements, Electrical, Miscellaneous**	CHECKED BY:	**TSW**
		CURRENT ENR:	**11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Perimeter Fence	2,800	LF	$ 32	$ 89,600
2	Security cameras	1	LS	$ 50,000	$ 50,000
3	Gates	3	EA	$ 15,000	$ 45,000
4	Driveway paving	1,500	SYD	33.33	$ 50,000
5	Laboratory/Administration Building Upgrades	1	LS	$ 150,000	$ 150,000
6	Miscellaneous Building upgrades	1	LS	$ 250,000	$ 250,000
7	SCADA Updates/fiberoptic	1	LS	$ 650,000	$ 650,000
8	Ferric System Upgrades	1	LS	$ 75,000	$ 75,000
11	General sitework for new buildings	1	LS	$ 75,000	$ 75,000
12	Power Panel C, D, MCC E replacement	1	LS	$ 300,000	$ 300,000
13	Site electrical upgrades	1	LS	$ 35,000	$ 35,000
14	Site piping upgrades	1	LS	$ 50,000	$ 50,000
15	FEW system upgrades	1	LS	$ 85,000	$ 85,000
16	Primary Tank conversion to wet weather storage	1	LS	$ 100,000	$ 100,000
	Total Cost				***$ 2,004,600***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT: **Cheboygan WWTP** — DATE: **6/19/2019**

LOCATION: **Cheboygan, MI** — PROJECT NO. **20180052**

BASIS FOR ESTIMATE: [x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL — ESTIMATOR: **TSW**

WORK: **Headworks** — CHECKED BY: **TSW**

CURRENT ENR: **11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	New Raw Sewage Pumps	4	EA	$ 65,000	$ 260,000
2	Pump Valves	15	EA	$ 7,500	$ 112,500
3	Piping	1	LS	$ 150,000	$ 150,000
4	Electrical and VFDs	1	LS	$ 200,000	$ 200,000
5	Temporary Bypass Pumping	1	LS	$ 200,000	$ 200,000
6	Flowmeter	1	LS	$ 20,000	$ 20,000
7	Demolition	1	LS	$ 50,000	$ 50,000
8	Fine Screen/Washer/Compacter	1	LS	$ 375,000	$ 375,000
9	Influent Channel Slide Gates	4	EA	$ 10,000	$ 40,000
10	HVAC	1	LS	$ 35,000	$ 35,000
11	Sump pumps	1	LS	$ 35,000	$ 35,000
12	Grit building	650	SF	$ 200	$ 130,000
13	Grit piping/Valves	1	LS	$ 75,000	$ 75,000
14	Grit removal equipment/classifier	1	LS	$ 450,000	$ 450,000
15	Grit electrical	1	LS	$ 125,000	$ 125,000
16	Septage receiving controller/connection	1	LS	$ 75,000	$ 75,000
	TOTAL PROJECT COST				***$ 2,332,500***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT:	**Cheboygan WWTP**	DATE:	**6/19/2019**
LOCATION:	**Cheboygan, MI**	PROJECT NO.	**20180052**
BASIS FOR ESTIMATE: [x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL		ESTIMATOR:	**TSW**
WORK:	**Oxidation Ditch**	CHECKED BY:	**TSW**
		CURRENT ENR:	**11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Oxidation Ditch				
2	Excavation	4,000	CYD	$ 30	$ 120,000
3	Concrete	1,400	CYD	$ 850	$ 1,190,000
4	Equipment	1	LS	$ 450,000	$ 450,000
5	Electrical	1	LS	$ 175,000	$ 175,000
6	Piping - 24" (INF & ML)	530	LF	$ 300	$ 159,000
7	Piping - 8" (RAS)	110	LF	$ 150	$ 16,500
8	Valves	6	EA	$ 15,000	$ 90,000
9	Gates	3	EA	$ 15,000	$ 45,000
10	Grating/Walkway/handrail	1	LS	$ 55,000	$ 55,000
11	Waste sludge pumps/valve system	1	LS	$ 150,000	$ 150,000
	TOTAL PROJECT COST				***$ 2,450,500***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI

Telephone: (248) 454-6300

PROJECT: **Cheboygan WWTP**

LOCATION: **Cheboygan, MI**

BASIS FOR ESTIMATE: [x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL

WORK: **Ultraviolet Disinfection**

DATE: **6/19/2019**

PROJECT NO. **20180052**

ESTIMATOR: **TSW**

CHECKED BY: **TSW**

CURRENT ENR: **11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Building	300	SF	$ 200	$ 60,000
2	Equipment	1	LS	$ 350,000	$ 350,000
3	Concrete channel	75	CYD	$ 850	$ 63,750
4	Electrical	1	LS	$ 60,000	$ 60,000
5	Grating and gates	1	LS	$ 35,000	$ 35,000
6	Bypass pump/treat	1	LS	$ 45,000	$ 45,000
	TOTAL PROJECT COST				***$ 613,750***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT:	**Cheboygan WWTP**	DATE:	**6/19/2019**
LOCATION:	**Cheboygan, MI**	PROJECT NO.	**20180052**
BASIS FOR ESTIMATE:	[x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL	ESTIMATOR:	**TSW**
WORK:	**Solids Dewatering**	CHECKED BY:	**TSW**
		CURRENT ENR:	**11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	New Building	900	SF	$ 200	$ 180,000
2	Sludge press	1	LS	$ 300,000	$ 300,000
3	Conveyors	1	LS	$ 80,000	$ 80,000
4	Polymer system	1	LS	$ 55,000	$ 55,000
5	Sludge pumps	1	LS	$ 70,000	$ 70,000
6	Sludge aeration/mixing in existing tank	1	LS	$ 200,000	$ 200,000
7	Exist Sludge Tank modifications/rehab	1	LS	$ 100,000	$ 100,000
8	Exposed Piping	1	LS	$ 55,000	$ 55,000
9	Electrical	1	LS	$ 175,000	$ 175,000
10	WAS piping (6")	450	LF	$ 150	$ 67,500
	TOTAL PROJECT COST				***$ 1,282,500***

ENGINEER'S OPINION OF PROBABLE PROJECT COST

Bloomfield Hills, MI — Telephone: (248) 454-6300

PROJECT:	**Cheboygan WWTP**	DATE:	**6/19/2019**
LOCATION:	**Cheboygan, MI**	PROJECT NO.	**20180052**
BASIS FOR ESTIMATE: [x] CONCEPTUAL [ ] PRELIMINARY [ ] FINAL		ESTIMATOR:	**TSW**
WORK:	**WWTP Improvements**	CHECKED BY:	**TSW**
	Final Clarifiers	CURRENT ENR:	**11116**

PRIORITY RANK	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Equipment/concrete topping Demo existing 50'	2	EA	$ 25,000	$ 50,000
2	New concrete effluent launders - 50'	2	EA	$ 25,000	$ 50,000
3	Weirs/Baffles - 50'	2	EA	$ 40,000	$ 80,000
4	Mechanism with Install - 50'	2	EA	$ 150,000	$ 300,000
5	Sludge pumps - replace existing on 50'	2	EA	$ 55,000	$ 110,000
6	Electrical	1	LS	$ 100,000	$ 100,000
7	Concrete repair - 50'	1	LS	$ 40,000	$ 40,000
8	Excavation - new 60'	1,600	CYD	$ 30	$ 48,000
9	Concrete - new 60'	350	CYD	$ 700	$ 245,000
10	Mechanism with Install - 60'	1	LS	$ 200,000	$ 200,000
11	Weirs/Baffles/Handrail - 60'	1	LS	$ 95,000	$ 95,000
12	New sludge pump station for clarifier	450	SF	$ 200	$ 90,000
13	Pumps (2 self priming) and valves/pipe	1	LS	$ 110,000	$ 110,000
14	Pump station electrical (new MCC)	1	LS	$ 100,000	$ 100,000
15	Mixed Liquor piping (16") & piping relocation for CSO	150	LF	$ 250	$ 37,500
16	Flow split structure for new clarifier	1	LS	$ 75,000	$ 75,000
17	Effluent piping (16")	270	LF	$ 250	$ 67,500
	TOTAL PROJECT COST				***$ 1,798,000***

City of Cheboygan
SRF Project Plan
Wastewater Treatment Plant Upgrades

Selected Alternative
User Fee Calculation

	BASIS	COST
CAPITAL COST		
Capital Cost	See project cost estimate	$16,000,000
CITY OF Cheboygan PROJECT COST PER USER		
City of Cheboygan Annual Payment	20-years at 2%	$978,507
Residential Users Annual Contribution	40% of flow	$391,403
Annual Project Cost per Residential User	1,822 Users	$214.82
Monthly Project Cost per Residential User	12 months per year	$17.90

Appendix F — Soil Contamination Map

EGLE **Environmental Mapper**
Department of Environment, Great Lakes, and Energy

The City of Cheboygan

Clear Map | Map Zooms | Map Quick Keys | Site Details

Select

Select Contamination Site Type(s)

Select | County | RRD | Watershed | Elected

Select Draw Tool

Appendix G — Public Participation Documentation

Appendix H — Agency Correspondence

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

PRINCIPALS
Daniel W. Mitchell
Nancy M.D. Faught
Jesse B. VanDeCreek
Roland N. Alix
Michael C. MacDonald
James F. Burton
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Trevor S. Wagenmaker

HUBBELL, ROTH & CLARK, INC.
STREET: 105 W. Grand River
Howell, MI 48843

PHONE: 517-552-9199
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 17, 2020

Michigan Department of Environment, Great Lakes, & Energy
Remediation and Redevelopment Division
525 W Allegan Street
Lansing, MI 48933

Re: Impact Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Sir or Madam:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts to contaminated sites in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon contaminated sites based on Part 201 and Part 213 of Michigan's Natural Resources and Environmental Protection Act (NREPA). The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. Since the proposed project involves improvements to existing facilities, no impacts are expected from the proposed project upon any NREPA regulations. See attached EGLE online site contaminants environmental mapper of existing site contaminants. On behalf of the City of Cheboygan,

we are requesting a review to confirm that the above referenced project will not cause an impact to Part 201 or Part 213 of the NREPA.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
EGLE Site Contaminants Environmental Mapper

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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HUBBELL, ROTH & CLARK, INC.
MAILING: PO Box 824
Bloomfield Hills, MI 48303-0824

SHIPPING: 555 Hulet Drive
Bloomfield Hills, MI 48302-0360

PHONE: 248-454-6300
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Delhi Township
Detroit
Grand Rapids
Howell
Jackson
Kalamazoo
Lansing

April 20, 2020

State Historic Preservation Office
Michigan Economic Development Corporation
300 North Washington Square
Lansing, MI 48913

Re: Historic Review
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Sir/Madam:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on any historic properties with religious and/or cultural significance in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon any historic properties with religious and/or cultural significance in the vicinity of the project. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. Since the proposed project involves replacement of existing facilities, no impacts are expected that could cause irreparable loss or destruction of significant scientific, prehistorical, historical or archeological data

in the vicinity of the project. In order to comply with the Archeological and Historic Preservation Act of 1974 your office must be notified as part of the development of this Project Plan. Attached is the Application for Section 106 Review and all its necessary attachments to fulfill this obligation. On behalf of the City of Cheboygan, we are requesting your determination of the potential for irreparable loss or destruction of significant scientific, prehistorical, historical or archeological data that may be caused by this project.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Wednesday, May 20, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
Copy of Application for Section 106 Review
Register of Historic Places Map
Project Location Aerial Map with APE
Photographs for Section V. of Application
USGS Cheboygan Quad Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

Revised August 22, 2019

STATE HISTORIC PRESERVATION OFFICE
Application for Section 106 Review

SHPO Use Only
☐ IN Received Date ____ / ____ / ____ Log In Date ____ / ____ / ____
☐ OUT Response Date ____ / ____ / ____ Log Out Date ____ / ____ / ____
Sent Date ____ / ____ / ____

Submit one copy for each project for which review is requested. This application is required. Please type. Applications must be complete for review to begin. Incomplete applications will be sent back to the applicant without comment. Send only the information and attachments requested on this application. Materials submitted for review cannot be returned. Due to limited resources we are unable to accept this application electronically.

I. GENERAL INFORMATION

☒ THIS IS A NEW SUBMITTAL ☐ THIS IS MORE INFORMATION RELATING TO ER#

a. Project Name: Cheboygan Wastewater Treatment Plant Upgrades
b. Project Address (if available): 975 N Huron Street, Cheboygan, Michigan 49721
c. Municipal Unit: City of Cheboygan County: Cheboygan County
d. Federal Agency, Contact Name and Mailing Address (*If you do not know the federal agency involved in your project please contact the party requiring you to apply for Section 106 review, not the SHPO, for this information.*): Water Infrastructure Financing Section, Department of Environment, Great Lakes, & Energy (EGLE), Kathy Roeder, Project Manager, Constitution Hall, 4 South, 525 West Allegan Street, P.O. Box 30241, Lansing, Michigan 48933, roederk1michigan.gov
e. State Agency (if applicable), Contact Name and Mailing Address: Water Infrastructure Financing Section, Department of Environment, Great Lakes, & Energy (EGLE), Kathy Roeder, Project Manager, Constitution Hall, 4 South, 525 West Allegan Street, P.O. Box 30241, Lansing, Michigan 48933, roederk1michigan.gov
f. Consultant or Applicant Contact Information (if applicable) *including mailing address*: Hubbell, Roth & Clark, Inc., Trevor S. Wagenmaker, Associate, 555 Hulet Drive, Bloomfield Hills, MI 48303, (p) (517)294-4739, twagenmaker@hrcengr.com

---

II. GROUND DISTURBING ACTIVITY (INCLUDING EXCAVATION, GRADING, TREE REMOVALS, UTILITY INSTALLATION, ETC.)

DOES THIS PROJECT INVOLVE GROUND-DISTURBING ACTIVITY? ☒ YES ☐ NO (If no, proceed to section III.)

Precise project location map (preferably USGS 7.5 min Quad with quad name, date, and location) with previously recorded archaeological sites visible (this site information is available to qualified archaeologists at the SHPO Office) Portions, photocopies of portions, and electronic USGS maps are acceptable as long as the location is clearly marked.

a. USGS Quad Map Name: MI Cheboygan 20191214 Quad Map
b. Township: T38N Range: R1W Section: 29
c. Site plan showing limits of proposed excavation. Description of width, length and depth of proposed ground disturbing activity: Minimal excavations will be used on the site to help with the structural construction of a new, approximately, 615,000-gallon three channel oxidation ditch. This new tank is tentatively shown to be constructed on the site north of the existing clarifiers (see Site plan). The ditch will be 43-feet long, 32-feet wide, and 0 to 20-feet in depth.
d. Previous land use and disturbances: The location includes an existing Wastewater Treatment Plant Facility, public right-of-way/easements, and areas previously disturbed during installation of the original facility and utilities.
e. Current land use and conditions: The land use is zoned as mainly single-family residential areas and industrial. The location of the proposed project is within city-owned property lines.
f. Did you check the State Archaeological Site Files located at the SHPO? ☐ YES ☒ NO

III. PROJECT WORK DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Note: Every project has an APE.

a. Provide a detailed written description of the project (plans, specifications, Environmental Impact Statements (EIS), Environmental Assessments (EA), etc. **cannot** be substituted for the written description): The proposed project for the City of Cheboygan's Wastewater Treatment Plant (WWTP) includes replacement and rehabilitation upgrades of existing wastewater treatment plant equipment and infrastructure, exisiting onsite laboratory and administrative buildings, and construction of a new clarifier, sludge pumping and dewatering buildings, and an oxidation ditch. All new construction and exisinting equipment upgrades will be wihtin the WWTP's property.The WWTP is located at the corner of North Huron Street and Lake Street, across from the Cheboygan River. The facility was built at this location in 1946 with upgrades in 1975 and 1998.
b. Provide a localized map indicating the location of the project; road names must be included and legible.
c. On the above-mentioned map, identify the APE.
d. Provide a written description of the APE (physical, visual, auditory, and sociocultural), the steps taken to identify the APE, and the justification for the boundaries chosen. There would be no Areas of Potential Effect (APE) at the existing Cheboygan WWTP project site due to the fact it is already a constructed facility and the public will have no interaction with the property since it is an industrial facility. The only note is that there may potentially be an Areas of Potential Effect west of the treatement plant where a new oxidation ditch will be constructed in the wooded area. However, this area is still property of the WWTP and will have no visual or sociacultural effect on the public. The reason this was noted as an Area of Potential Effect is due to the change in land use. Trees will most likely have to be cleared in order for construction to take place. Alternative scenarios may be put in place after further investigation if this area is not deemed fit for the oxidation ditch.

IV. IDENTIFICATION OF HISTORIC PROPERTIES

a. List and date **all** properties 50 years of age or older located in the APE. **The Section 106 Above-Ground Resources inventory form is the preferred format for providing this information and a completed form should be included as an attachment to this application.** If the property is located within a National Register eligible, listed or local district it is only necessary to identify the district: Not Found
b. Describe the steps taken to identify whether or not any **historic** properties exist in the APE and include the level of effort made to carry out such steps: N/A
c. Based on the information contained in "b", please choose one:
   - ☐ Historic Properties Present in the APE
   - ☒ No Historic Properties Present in the APE
d. Describe the condition, previous disturbance to, and history of any historic properties located in the APE: N/A

V. PHOTOGRAPHS

Note: All photographs must be keyed to a localized map.

a. Provide photographs of the site itself.
b. Provide photographs of all properties 50 years of age or older located in the APE (faxed or photocopied photographs are not acceptable).

VI. DETERMINATION OF EFFECT

Note: you must provide a statement explaining/justifying your determination. Include statement as an attachment if necessary.

☒ No historic properties affected based on [36 CFR § 800.4(d)(1)], **please provide the basis for this determination**.

☐ No Adverse Effect [36 CFR § 800.5(b)] on historic properties, **explain why the criteria of adverse effect, 36 CFR Part 800.5(a)(1), were found not applicable**.

☐ Adverse Effect [36 CFR § 800.5(d)(2)] on historic properties, **explain why the criteria of adverse effect, [36 CFR Part 800.5(a)(1)], were found applicable.**

Please print and mail completed form and required information to:

State Historic Preservation Office, Cultural Resources Management Section
Michigan Economic Development Corporation
300 North Washington Square, Lansing, MI 48913

National Register of Historic Places

Public, non-restricted data depicting National Register spatial data processed by the Cultural Resources GIS facility. Data last updated in April, 2014.

National Park Service
U.S. Department of the Interior

THE CITY OF CHEBOYGAN

HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE
BLOOMFIELD HILLS, MICH.
P.O. BOX 824
48303-0824

JOB NO.
20191206

DATE
Apr 2020

CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
National Register of Historic Places

LEGEND

- Historic Place

THE CITY OF CHEBOYGAN

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P.O. BOX 824
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JOB NO.
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CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
LOCATION MAP

LEGEND

Area of Potential Effect

City of Cheboygan
WWTP Site Photos
Section 106 Review

City of Cheboygan
WWTP Site Photos
Section 106 Review

City of Cheboygan
WWTP Site Photos
Section 106 Review

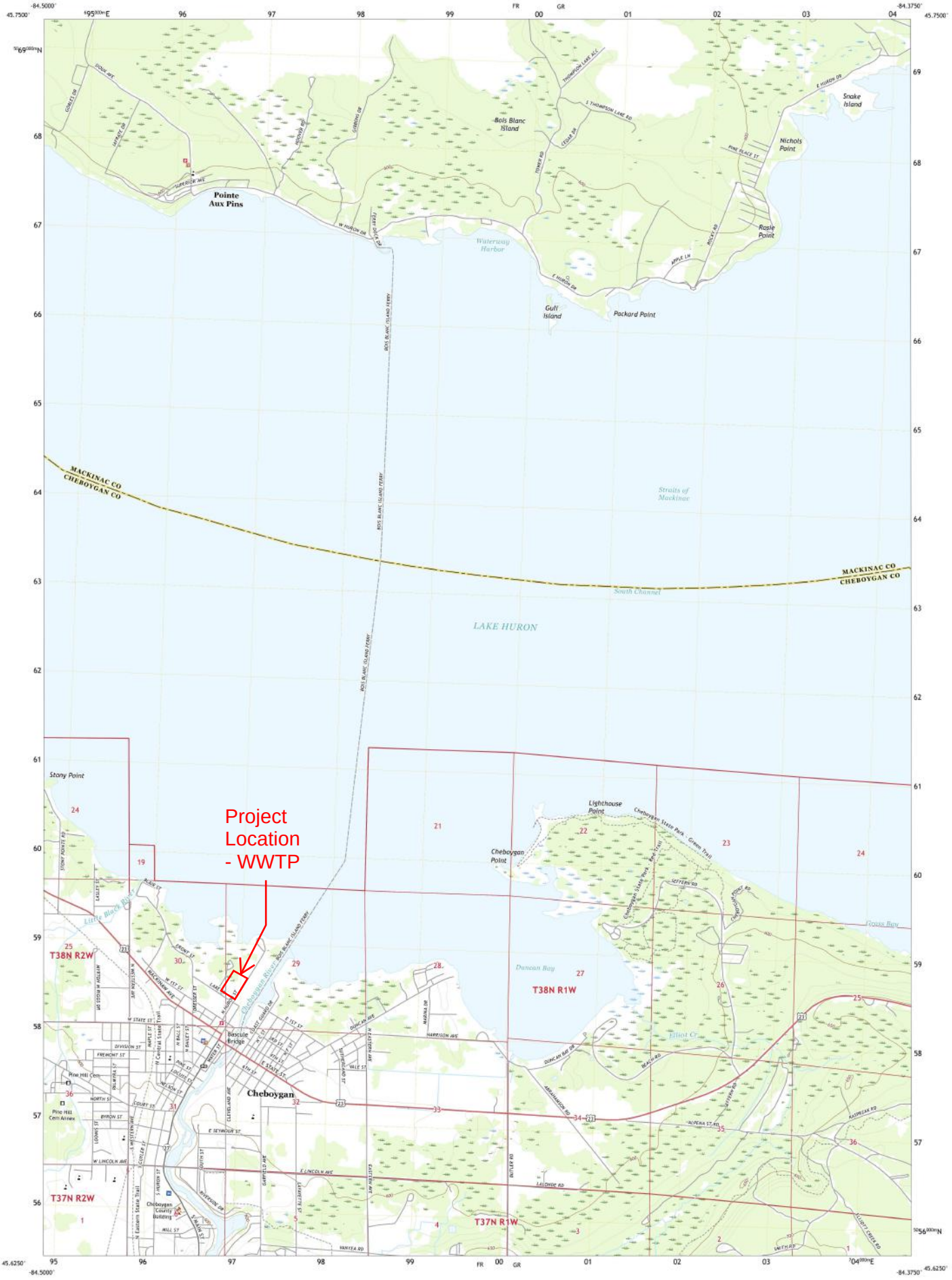
City of Cheboygan
WWTP Site Photos
Section 106 Review

City of Cheboygan
WWTP Site Photos
Section 106 Review

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
US Topo

CHEBOYGAN QUADRANGLE
MICHIGAN
7.5-MINUTE SERIES



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HUBBELL, ROTH & CLARK, INC.
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Bloomfield Hills, MI 48303-0824

SHIPPING: 555 Hulet Drive
Bloomfield Hills, MI 48302-0360

PHONE: 248-454-6300
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Delhi Township
Detroit
Grand Rapids
Howell
Jackson
Kalamazoo
Lansing

April 20, 2020

Bay Mills Indian Community
12140 W. Lakeshore Drive
Brimley, MI 49715

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Paula Carrick, THPO:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon protected plants and animals. The project construction will involve the following:

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HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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CONSULTING ENGINEERS SINCE 1915

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OTHER OFFICE LOCATIONS
Delhi Township
Detroit
Grand Rapids
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Jackson
Kalamazoo
Lansing

April 20, 2020

Grand Traverse Bay Band of Odawa and Chippewa Indians
2605 NW Bayshore Drive
Peshawbetown, MI 49682

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Cindy Winslow:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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CONSULTING ENGINEERS SINCE 1915

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Lansing

April 20, 2020

Hannahville Potawatomi Indian Community
N-14911 Hannahville B-1 Road
Wilson, MI 49896

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Earl Meshigaud:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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CONSULTING ENGINEERS SINCE 1915

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HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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Jackson
Kalamazoo
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April 20, 2020

Keweenaw Bay Indian Community
16429 Bear Town Road
Baraga, MI 49908

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Gary Loonsfoot, Jr., THPO:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
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Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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OTHER OFFICE LOCATIONS
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Detroit
Grand Rapids
Howell
Jackson
Kalamazoo
Lansing

April 20, 2020

Lac Vieux Desert Band of Lake Superior Chippewa Indians
PO Box 249
Watersmeet, MI 49969

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Mr. Giiwegiizhigookway Martin, THPO:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

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Project Location Map

pc: EGLE; Kathy Roeder
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OTHER OFFICE LOCATIONS
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Detroit
Grand Rapids
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Jackson
Kalamazoo
Lansing

April 20, 2020

Little River Band of Ottawa Indians
2608 Government Center, Drive
Manistee, MI 49660

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Jay Sam, Director:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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CONSULTING ENGINEERS SINCE 1915

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HUBBELL, ROTH & CLARK, INC.
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Bloomfield Hills, MI 48303-0824

SHIPPING: 555 Hulet Drive
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PHONE: 248-454-6300
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Delhi Township
Detroit
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Howell
Jackson
Kalamazoo
Lansing

April 20, 2020

Little Traverse Bay Band of Odawa
7500 Odawa Circle
Harbor Springs, MI 49740

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Wes Andrews:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon protected plants and animals. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. Since the proposed project involves replacement of existing facilities, no impacts are expected from the proposed project upon any historic properties with religious and/or cultural significance.

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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Lansing

April 20, 2020

Match-e-be-nash-shee-wish Gun Lake Band of Potawatomi Indians
2872 Mission Drive
Shelbyville, MI 49344

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Heather Bush:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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CONSULTING ENGINEERS SINCE 1915

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April 20, 2020

Nottawaseppi Band of Huron Potawatomi
1485 Mno-Bmadzewen Way
Fulton, MI 49052

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Mon-ee Zapata:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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Lansing

April 20, 2020

Pokagon Band of Potawatomi
58620 Sink Road
Dowagiac, MI 49047

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Marcus Winchester, THPO:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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HUBBELL, ROTH & CLARK, INC.
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Detroit
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Jackson
Kalamazoo
Lansing

April 20, 2020

Saginaw Chippewa Indian Tribe of MI
6650 W. Broadway
Mt. Pleasant, MI 48858

Re: Notice and Opportunity to Comment
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Willian Johnson, Interim THPO:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

MLCorona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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Howell
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Kalamazoo
Lansing

April 20, 2020

Sault Ste. Marie Tribe of Chippewa
523 Ashmun
Sault Ste. Marie, MI 49783

Re: Notice and Opportunity to Comment — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Colleen Medicine:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

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On behalf of the City of Cheboygan, we are providing you with the opportunity to comment on the above referenced project to assure that it will not cause an impact to any historical properties with religious and/or cultural significance in which you may be aware. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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HUBBELL, ROTH & CLARK, INC.
STREET: 105 W. Grand River
Howell, MI 48843

PHONE: 517-552-9199
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
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Grand Rapids
Jackson
Kalamazoo
Lansing

April 17, 2020

Farmland Preservation Program
USDA Natural Resources Conservation Service
3001 Coolidge Road, Suite 250
East Lansing, MI 48823-6362

Re: Impact Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Sir or Madam:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on prime and unique farmland in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon the Farmland Protection Policy Act regulations. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
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Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system, six lift stations in the City limits, and four lift stations from Inverness Township which discharge through one Inverness lift station to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

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We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
Project Aerial Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

THE CITY OF CHEBOYGAN

HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE
BLOOMFIELD HILLS, MICH.
P.O. BOX 824
48303-0824

JOB NO.
20191206

DATE
APR 2020

CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
PROPOSED SITE PLAN

HUBBELL, ROTH & CLARK, INC
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Daniel W. Mitchell
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HUBBELL, ROTH & CLARK, INC.
MAILING: PO Box 824
Bloomfield Hills, MI 48303-0824

SHIPPING: 555 Hulet Drive
Bloomfield Hills, MI 48302-0360

PHONE: 248-454-6300
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Delhi Township
Detroit
Grand Rapids
Howell
Jackson
Kalamazoo
Lansing

April 20, 2020

U.S Fish and Wildlife Service
Michigan Field Office
2651 Coolidge Road, Suite 101
East Lansing, MI 48823-6360

Re: Protected Plants and Animals Review — HRC Job No. 20191206
Wastewater Treatment Plant Upgrades
City of Cheboygan, Michigan

Dear Endangered Species Specialist:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon protected plants and animals. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. On behalf of the City of Cheboygan, we have completed the U.S. Fish and Wildlife Service streamlined review process which indicates this proposed project would have “no critical habitats” in the project vicinity but there are several protected species, please see attached documentation. On behalf of

the City of Cheboygan, we are requesting a review to confirm that the above referenced project will not cause an impact to any protected plants and animals in the project vicinity.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
Endangered Species Documentation

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

1 Find location

2 Define area

3 Confirm

Verify the area where project activities will occur

Modify the shape by clicking and dragging the vertices or clicking on a solid vertex to remove it

AREA: 14.90 acres

CONTINUE

START OVER

Layers ADD

Explore location

LOCAL OFFICE **MICHIGAN ESFO**

LOCATION
Cheboygan County, Michigan
CHANGE LOCATION

Resources

ENDANGERED SPECIES	10
MIGRATORY BIRDS	3
FACILITIES	
WETLANDS	✔

PRINT RESOURCE LIST

What's next?

Define a project at this location to evaluate potential impacts, get an official species list, and make species determinations.

DEFINE PROJECT

Endangered species

Listed species 1 and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries 2).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

Additional information on endangered species data is provided below.

The following species are potentially affected by activities in this location:

THUMBNAILS | LIST

SPECIES GUIDELINES

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis*	Threatened

Birds

NAME	STATUS
Piping Plover CH *Charadrius melodus*	Endangered
Red Knot *Calidris canutus rufa*	Threatened

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus*	Threatened

Insects

NAME	STATUS
Hungerford's Crawling Water Beetle *Brychius hungerfordi*	Endangered

Flowering Plants

NAME	STATUS
Dwarf Lake Iris Iris lacustris	Threatened
Eastern Prairie Fringed Orchid Platanthera leucophaea	Threatened
Houghton's Goldenrod Solidago houghtonii	Threatened
Michigan Monkey-flower Mimulus michiganensis	Endangered
Pitcher's Thistle Cirsium pitcheri	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

- **What does IPaC use to generate the list of endangered species potentially occurring in my specified location?**
- **Do these lists represent all species to be considered at this location?**
- **What is an 'official species list' and why would I need one?**

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HUBBELL, ROTH & CLARK, INC.
STREET: 105 W. Grand River
Howell, MI 48843

PHONE: 517-552-9199
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 17, 2020

Natural River Administrator
DNR Fisheries Division
PO Box 30446
Lansing, MI 48909-7946

Re: Wild and Scenic Rivers Review
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

HRC Job No. 20191206

Dear Mr. Jim Dexter:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on state or federally-designated wild, scenic, or natural rivers or tributaries in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon protected state or federally-designated wild, scenic, or natural rivers or tributaries. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
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The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. The WWTP is also located directly across from the Cheboygan River. The location of these improvements and construction will be planned to not occur or impact the nearby Lake and/or River.

On behalf of the City of Cheboygan, we are requesting a review to confirm that the above referenced project will not cause an impact to any state or federally designated wild, scenic, or natural rivers or tributaries.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Monday, May 18, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
Aerial of Project Area & Nearby Rivers

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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HUBBELL, ROTH & CLARK, INC.
STREET: 105 W. Grand River
Howell, MI 48843

PHONE: 517-552-9199
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 15, 2020

NESHAP Asbestos Program
Department of Environment, Great Lakes & Energy - Air Quality Division
P.O. Box 30260
Lansing, MI 48909-7760

Attn: Ms. Karen Kajiya-Mills, Program Manager

Re: Impact Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Ms. Kajiya-Mills:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts due to removal of building materials containing asbestos in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. The project construction will involve the following:

- Upgrades and replacement of WWTP equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering, and an oxidation ditch for biological treatment.
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The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. The proposed project may encounter building materials containing asbestos during the construction phase for projects on the WWTP site. However, proper removal procedures will take place to not impact any

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NESHAP regulations. On behalf of the City of Cheboygan, we are requesting a review to confirm that the above referenced projects will not cause an impact to NESHAP regulations in the project vicinity.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

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STREET: 105 W. Grand River
Howell, MI 48843

PHONE: 517-552-9199
WEBSITE: hrcengr.com

OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 17, 2020

MDOT Bureau of Aeronautics
2700 Port Lansing Road
Lansing, MI 48906-2160

Attn: Mr. Steve Houtteman, Aeronautics Environmental Specialist

Re: Impact Review — HRC Job No. 20180052
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Mr. Houtteman:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on airspace and airports in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon Federal Aviation Administration (FAA) regulations and the Michigan Tall Structure Act (1950 PA 327). The project construction will involve the following:

- Upgrades and replacement of WWTP equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering, and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations within the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. Since the proposed project involves improvements to existing facilities, no impacts are expected from the proposed project upon any airspace and airports. On behalf of the City of Cheboygan, we are requesting

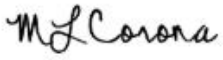
a review to confirm that the above referenced project will not cause an impact to any airspace or airports in the project vicinity.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

THE CITY OF CHEBOYGAN

HRC
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CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE
BLOOMFIELD HILLS, MICH.
P.O. BOX 824
48303-0824

JOB NO.
20191206

DATE
APR 2020

CITY OF CHEBOYGAN
WASTEWATER TREATMENT PLANT
PROPOSED SITE PLAN

HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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Howell, MI 48843

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OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 19, 2020

Region 9 Planning & Development Commission
Northeast Michigan Council of Governments
80 Livingston Blvd., Suite U-108
PO Box 457
Gaylord, MI 49734

Re: Regional Environmental Planning Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Sir/Madam:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on any local development plans, area wide waste treatment management plans and/or regional water quality management plans.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon any local development plans, area wide waste treatment management plans and/or regional water quality management plans in the vicinity of the project. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
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All population figures and projections referenced in the project plan will be collected from the United States Census Fact Finder Website Profile, which can be found at the following web address: (https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml). We request, on behalf of the City of Cheboygan, notification if an alternative source for the population data is recommended.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. Since the proposed project involves improvements to existing facilities, no impacts are expected from the proposed project upon local development plans, area wide waste treatment management plans and/or regional water quality management plans. On behalf of the City of Cheboygan, we are requesting a review to confirm that the above referenced project will not cause an impact to any local development plans, area wide waste treatment management plans and/or regional water quality management plans.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

Additionally, a copy of the Project Plan Draft will be sent to your office upon completion for your review and approval.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
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OTHER OFFICE LOCATIONS
Delhi Township
Detroit
Grand Rapids
Howell
Jackson
Kalamazoo
Lansing

April 17, 2020

Michigan Natural Features Inventory
P.O. Box 30444
Lansing, MI 48909-7944

Re: Protected Plants and Animals Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Endangered Species Specialist:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts on protected plants and animals in the vicinity of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the impacts of the above referenced proposed project upon protected plants and animals. The project construction will involve the following:

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- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. We have submitted a request for an official species review process. On behalf of the City of Cheboygan, we are requesting a review to confirm that the above referenced project will not cause an impact to any protected plants and animals in the project vicinity.

We request, on behalf of the City of Cheboygan, your concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

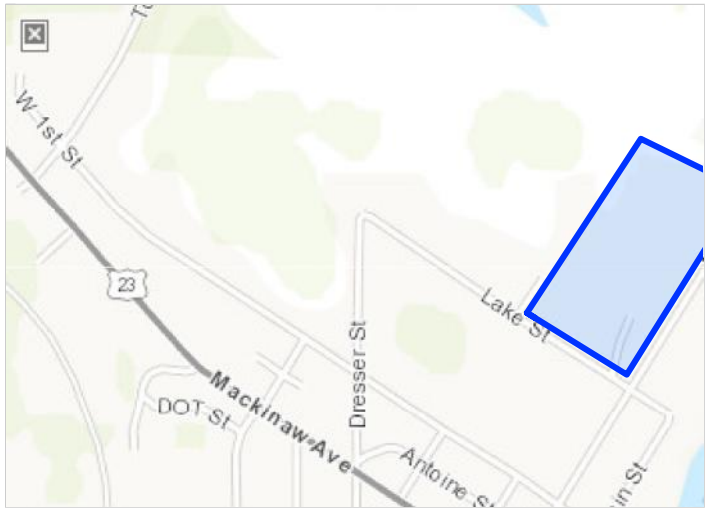
Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
Documentation of Species Review Request

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

Cheboygan Wastewater Treatment Plant Upgrades

No description provided.



LOCATION Cheboygan County, Michigan

What's next?

ENDANGERED SPECIES REVIEW

Review this project's effect on listed species [1] pursuant to the Endangered Species Act, as part of the overall regulatory review.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

CREATED April 15, 2020

SPECIES LIST

Requesting an official species list is now part of IPaC's endangered species review.

Resources

This project potentially impacts 14 resources managed or regulated by the U.S. Fish and Wildlife Service.

- 10 endangered species
- 3 migratory birds
- Known wetlands

Local office

Michigan Ecological Services Field Office

(517) 351-2555
(517) 351-1443

2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360

http://www.fws.gov/midwest/endangered/section7/s7process/step1.html

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OTHER OFFICE LOCATIONS
Bloomfield Hills
Delhi Township
Detroit
Grand Rapids
Jackson
Kalamazoo
Lansing

April 17, 2020

Michigan Department of Environment, Great Lakes, & Energy
Office of Waste Management and Radiological Protection Division
P.O. Box 30473
Lansing, MI 48909-7973

Re: Impact Review — HRC Job No. 20191206
Wastewater Treatment Plant Updates
City of Cheboygan, Michigan

Dear Sir or Madam:

The City of Cheboygan is submitting a Project Plan to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for acceptance into the State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (SWQIF) Loan Program. The Project Plan requires a review to determine any potential impacts to the disposal of waste materials in accordance with Michigan's Natural Resources and Environmental Protection Act (NREPA) as a result of the project.

On behalf of the City of Cheboygan, we are requesting information regarding the potential impacts of the above referenced project based on Part 111, Part 115 and Part 121 of Michigan's Natural Resources and Environmental Protection Act (NREPA) and the Hazardous Materials Transportation Act. The project construction will involve the following:

- Upgrades and replacement of wastewater treatment plant (WWTP) equipment including influent pumping, screening, grit removal, final clarifiers, the disinfection system, septage receiving and the sludge processing system.
- Construction of a third clarifier, sludge pumping and dewatering and an oxidation ditch for biological treatment.
- Upgrades to the Laboratory, Administrative Building, and other buildings.
- Upgrades and replacement to plant infrastructure including chemical feed systems, electrical systems, SCADA system, service water system, site fencing/security and driveway.

Conveyance of wastewater to the City of Cheboygan WWTP is accomplished by a sanitary sewer collection system and six lift stations in the City limits, including one lift station that discharges the wastewater from Inverness Township to the gravity sewer in Cheboygan. The City owns and operates its system and the WWTP. The project area for updates at the Cheboygan WWTP is located in Section 29 of Cheboygan Township, Michigan, T38N, R1W. The service area location of the WWTP that will be impacted is provide in the attached figure.

The proposed project site covers mostly urban areas with construction of a new oxidation tank in a wooded area west of the existing WWTP. Minimal excavations will be used throughout the site to help with the structural replacement and rehabilitation of existing equipment. The scope of this project is between an urbanized area of the City of Cheboygan and the shoreline of Lake Huron. The proposed project involves reconstruction and replacement of existing facilities. No removal or disposal of building materials which contain lead, mercury, PCBs, or similar contaminants is expected.

Therefore, there are no anticipated impacts from the proposed project upon any NREPA regulations. Please see map for documentation of any possible contamination sites from the EGLE online environmental map. On behalf of the City of Cheboygan, we are requesting a review to confirm that the above referenced project will not impact Part 111, Part 115, or Part 121 of the NREPA.

We request, on behalf of the City of Cheboygan, your explanation and concurrence with this determination. We appreciate your review and would be grateful for a response by Friday, May 15, 2020 so that we may meet program deadlines.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

M L Corona

Maria Corona, E.I.T.
Graduate Engineer

Attachments
Cheboygan Service Map
Project Location Map
EGLE Site Contaminants Map

pc: EGLE; Kathy Roeder
City of Cheboygan; Jason Karmol
HRC; T. Wagenmaker, File

Appendix I — City of Cheboygan Asset Management Plan

HRC OFFICE LOCATIONS

- **Bloomfield Hills**
  555 Hulet Drive
  Bloomfield Hills, MI 48302
  (248) 454-6300 | Fax: (248) 454-6312
- **Detroit**
  Buhl Building, Suite 1650
  535 Griswold Street | Detroit, MI 48226
  (313) 965-3330
- **Howell**
  105 West Grand River
  Howell, MI 48843
  (517) 552-9199
- **Kalamazoo**
  834 King Highway, Suite 107
  Kalamazoo, MI 49001
  (269) 665-2005
- **Delhi Township**
  2101 Aurelius Road, Suite 2
  Holt, MI 48842
  (517) 694-7760
- **Grand Rapids**
  801 Broadway NW, Suite 215
  Grand Rapids, MI 49504
  (616) 454-4286
- **Jackson**
  401 S. Mechanic Street, Suite B
  Jackson, MI 49201
  (517) 292-1295
- **Lansing**
  215 South Washington Square
  Lansing, MI 48933
  (517) 292-1488