Village of Almont

Clean Water State Revolving Fund Project Plan

WASTEWATER SYSTEM

IMPROVEMENT

PREPARED FOR:

VILLAGE OF ALMONT

LAPEER COUNTY, MICHIGAN

DRAFT – REVIEW AND COMMENT

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

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EXECUTIVE SUMMARY

This Project Plan was completed to qualify for financing through the Clean Water State Revolving Fund (CWSRF) for improvements to the Village of Almont wastewater system. The proposed Project includes upgrades to the collection system. The CWSRF program assists municipalities in financing certain utility improvements projects over a 20 or 30-year term at favorable interest rates – typically between 1.875 and 2.5%. As such, projects reflect the long-term needs of the community.

This CWSRF Project Plan is the first step in an application for financing of the necessary improvements. This report presents the results of the engineering and scientific evaluations performed to determine the need for the project, develop alternatives to remedy identified problems, and to define the scope of the recommended/selected alternative. Background information on the existing system is also provided along with the rationale used to define alternative projects that can meet the long-term wastewater treatment needs of the Village. The viable alternatives are evaluated and compared as to their financial and technical feasibility regarding implementation.

The Almont Wastewater Treatment Plant was originally constructed in 1958. The facilities included primary settling, a trickling filter to biologically remove organic matter, a final settling tank, and chlorination facilities. When improved treatment was needed to comply with new stringent water quality standards of the National Pollutant Discharge Elimination System Permit (NPDES), a new plant was constructed and first placed into service in April of 1989, with a capacity of 370,000 gallons per day. It was anticipated that this plant would meet the anticipated growth of the Village through the year 2000.

Four options were developed for evaluation to address the project objectives. Of these, the only alternative that meets all project objectives is Alternative 4 which incorporates improvements to the wastewater collection system and WWTP described in Alternatives 2 and 3. Alternative 2 includes improvements to the WWTP addressing inefficiencies and frequent maintenance requirements of aging equipment improving the overall wastewater treatment process. Alternative 3 includes various upgrades and repairs to the wastewater collection system, including replacing or relining pipe runs that have a history of breaks and leakage as well as upgrading the pumps at the Jonathon Lift Station improving efficiency of wastewater pumping.

The average cost to users to finance the proposed collection system improvements entirely CWSRF Programs is estimated at $8.00 to $10.00 per month per Residential Equivalent Unit (REU) based on a 30 year to 20-year loan at 2.5% respectively. Actual monthly costs will vary depending on the final CWSRF loan amount, finance terms, and any potential Federal or State Grants.

I. INTRODUCTION

The Village of Almont is located in Lapeer County in the eastern side of Michigan. The Village, with a population of 2846 people, owns and operates its sanitary sewer collection system, and Wastewater Stabilization Lagoons, as well as the water storage and distribution system within the Village.

The original Almont Wastewater Treatment Plant was completed in 1958. The facilities included primary settling, a trickling filter to biologically remove organic matter, a final settling tank, and chlorination facilities. When improved treatment was needed to comply with new stringent water quality standards of the National Pollutant Discharge Elimination System Permit (NPDES), a new plant was constructed and first placed into service in April of 1989, with a capacity of 370,000 gallons per day. It was anticipated that this plant would meet the anticipated growth of the Village through the year 2000.

The purpose of this Project Plan is to fulfill and document the fulfillment of requirements found in the state statutes (MCL§324.5303) and rules that govern the Clean Water State Revolving Fund (CWSRF).

In addition, this Project Plan provides a basis for ranking the Village's proposed wastewater system improvements in comparison to projects by other municipalities in a project priority listing for a low-interest State Revolving Fund loan. This is a financially attractive program where municipalities across Michigan compete for limited funds based on the merits of their proposed projects. The scope of this Project Plan includes a summary of current issues with the Almont wastewater collection system, the development of projected population growth and the wastewater needs of the service area for the 20-year planning period. The Project Plan identifies principal alternatives to meet the current and future wastewater needs and evaluates the environmental impacts of the recommended alternative.

The Project Plan presents projected user costs necessary to operate the utility and repay the low-interest loan for the recommended alternative. The availability of the Project Plan for public review has been advertised on the Village of Almont website and the draft Project Plan was placed on public display at the Almont Village Hall. A summary of public participation and public comments solicited by the Village regarding the Project Plan and Selected Alternative are included in Appendix E.

The format of this report follows the project planning guidelines for Clean Water Revolving Funds (CWSRF) prepared by the Michigan Department of Environmental, Great Lakes and Energy (EGLE), Revolving Loan Section. Section II presents extensive background information including a description of the community, the study area characteristics, the wastewater treatment capacity and the need for the project. Section III presents alternatives for resolution of the problems. Sections IV, V, and VI further evaluate the Selected Alternative, including a detailed description, evaluation of environmental impacts and mitigation measures. Section VII presents the public participation measures taken throughout the duration of the project.

II. PROJECT BACKGROUND

The Village of Almont's Wastewater Treatment Plant (WWTP) operates under the jurisdiction of the Michigan Department of Environment, Great Lakes & Energy (EGLE). The WWTP is subject to both general standards and specific permit requirements under the National Pollutant Discharge Elimination System (NPDES). The State of Michigan has primacy for implementing these rules.

The Wastewater Treatment Facility must operate in accordance with the National Pollutant Discharge Elimination System Permit (NPDES). The NPDES permit mandates how the treatment facility must remove pollutants from the community's wastewater. During normal flow periods the discharge is in compliance with the NPDES permit, however, during excessive wet weather and floods' the treatment works has been overloaded with storm and groundwater (infiltration). This produces flows that tax our treatment capacity. In response, the Village of Almont DPW and WWTP are conducting a downspout disconnection awareness program that encourages residents to disconnect their downspouts from the sanitary sewer system

A. Study Area Characteristics

1. Delineation of Study Area

The Study Area includes the Village of Almont Service Area. The Village is shown in Figure A2, in Appendix A.

B. Environmental Setting

1. Cultural Resources

A search of the Michigan State Housing Development Authority Historic Sites Online website indicated State or Federal listed historic sites in the Village of Almont.

- Henry Stephens Memorial Library
- Currier House

A letter requesting review with respect to impacts to known historical and archeological sites will be sent to the State Historic Preservation Office (SHPO) contingent upon CWSRF Project funding and village's approval to proceed. It is assumed that this project is not an equivalency project.

Letters requesting review with respect to impacts on tribally important cultural or religious sites will be requested contingent upon CWSRF Project funding and village's approval to proceed.

2. The Natural Environment

Climate

The climate in the region is continental, with cold winters and warm summers. According to the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center's 1981-2010 Normals Dataset, the annual average daily temperature is 48.3 °F. The climate can be further described by the following:

- Temperature: January is typically the coldest month, with an average temperature of 13.0 °F. July is typically the warmest month, with an average temperature of 82.0 °F.
- Precipitation: the average total yearly precipitation is 33.5 inches.
- Snowfall: Village of Almont typically receives 35.4 inches of snowfall every year.

These climate conditions, specifically the winter conditions and design frost levels, would have equal design and construction impacts on all the principal alternatives and equally affect the length of construction seasons for all alternatives.

Air Quality

The air quality trends in Michigan can be defined by the measurement of certain air pollutants. These pollutants are identified as carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), sulfur dioxide (SO_2), and air toxins or trace metals.

The Air Quality Index (AQI) was developed by the EPA to provide a simple uniform way to report daily air pollution concentration on a numerical scale. The scale is related to potential health effects. The scale ranges as follows: good (0-50), moderate (51-100), unhealthy for sensitive groups (101-150), and unhealthy (151+). The unhealthy group also includes "very unhealthy" and "hazardous" classifications.

According to the EPA's AirData Air Quality System, at the Flint, Michigan air monitoring station (the one closest to the Village of Almont), the primary contributor to the index was ozone for 193 days in 2022 and PM2.5 for 171 days. For 2 days it reached the unhealthy for sensitive groups (101-150) or unhealthy (151+) ranges. The 2021 AQI 90th percentile was 59 (moderate), meaning the AQI only exceeded 59 for 10% of the year.

Air quality impacts due to construction dust and emissions in the area due to construction equipment would be temporary and similar for the principal alternatives.

Wetlands

A wetlands map was generated at the USFWS National Wetlands Inventory website. The map is included in Appendix A as Figure A3. Areas of freshwater emergent, freshwater pond and freshwater forested/shrub wetlands are adjacent to the Wastewater Treatment Plant.

It is not anticipated that this project will have any long-term impacts on area wetlands. The wetlands adjacent to the WWTP site will not be affected during the construction of the improvements.

A request for review of any potential impacts to land-water interfaces will be sent to EGLE contingent upon CWSRF Project funding and village's approval to proceed. It is assumed that this project is not an equivalency project.

The proper permits will be acquired before construction commences.

Floodplains

There are floodplains within the Village of Almont. The online FEMA Floodplain Map Viewer was used and the floodplain map indicates that the area is of minimal flood hazard. The map is included in Figure A4 of Appendix A. Appropriate permits will be acquired before any construction commences.

A request for review of any potential impacts to floodplains will be sent to EGLE contingent upon CWSRF Project funding and village's approval to proceed.

Special Designation Rivers (Trout, Natural, Wild & Scenic)

The Wild and Scenic Rivers Act, as amended by the Michigan Scenic Rivers Act of 1991, prohibits federal assistance to a project which will have a direct and adverse effect on the values for which a river segment listed in the National Wild and Scenic Rivers System or designated for study on the National Rivers Inventory was established.

Rivers located within Village of Almont are not listed on the National Wild and Scenic Rivers System website, administered by the National Park System, or on the Michigan Natural Rivers System found on the Michigan Department of Natural Resources website.

Major Surface Waters

The most noticeable natural feature near the village of Almont is the Clinton Watershed System that runs through the Village.

Recreational Facilities

There are public schools and private facilities located throughout the Village and Township that provide a variety of activities that residents and visitors can enjoy. These amenities include a running track, basketball nets, soccer fields, indoor gymnastics, playground, tennis courts, and ball diamonds. The Township specifically owns a park in the ball fields and other sport fields in the Village. The two County parks listed in the inventory, Tarzewski County Park and General Squire Park, both provide a wide range of amenities. The Tarzewski Park facilities include a children's pay pool, water slides, boat rentals, a picnic area, nature trails, a ball diamond, fishing, cross-country skiing, sledding, an amphitheater, and pavilions. The General Square Park provides a baseball diamond, water play area, a picnic area, cross-country skiing, nature trails, sledding, fishing, restrooms, and meeting halls. Within the Parks and Recreation Plan, there are specific goals and objectives and an action plan to implement the Parks and Recreation Plan. Many of these concepts have been included in the master plan, but for more specifics on the parks and recreation materials, please see the full Parks and Recreation Plan.

Topography and Geology

Figure A5 shows the existing topography from the USGS quadrangle map. The Village of Almont has an elevation range between 824 and 850 feet with the WWTP being around 824 feet according to the USGS Quadrangle map.

The regional geology for the area is based on a review of the Quaternary Geology of Michigan Map (W.R. Farrand, 1982), see Figure A6; and the Bedrock Geology of Michigan Map (MDNR Geological Survey Division, 1987), see Figure A7.

The general geology of the Village of Almont is characterized by End Moraines of coarse-textured till and the bedrock geology consists of Coldwater Shale under the entirety of the Village.

Soils

Figure A8 is the USDA National Resources Conservation Service soil map for the Village of Almont. Soil located in the Village of Almont is composed of Cohoctah, frequently flooded and similar soils.

Agricultural Resources

According to the United States Department of Agriculture's Web Soil Survey, a portion of the land in the Village (approximately 9%) is considered "farmland of local importance." Large areas of the land is considered "All areas are prime farmland" (approximately 74%). A portion of the land is also considered "Prime farmland if drained" (approximately 13.3%). The remaining land (approximately 6%) is considered "not prime farmland"

and largely consists of surface water and wetland areas. A map showing the USDA's Farmland Classification for land throughout the Village can be found in Appendix A in Figure A9.

Since the proposed project is entirely within road right-of-ways. It is not anticipated to have any impact on agricultural resources in the Village.

National Natural Landmarks

According to the National register of Historic Places and the National Park Service the Village of Almont has no national natural landmarks within the Village limits. Due to no designated natural landmarks, construction would not be able to interfere with designated historical areas or natural landmarks. Therefore, the construction will not have an impact on landmarks, or archaeological sites.

3. Land Use in the Study Area

A majority of the Village of Almont is zoned for commercial or single-family residential use. There are small areas of multi-family residential zoning scattered around the village. The current Zoning Map from the Master Plan is included as Figure A10 in Appendix A.

The Township Master Plan adopted 2018 indicates future land use is similar to existing uses. A goal of the Master Plan is to maintain the general land use situation through slight modification if needed, rather than altering land use in a significant fashion.

C. Population Data

The Village of Almont has a total of 1479.6 Residential Equivalent Units (REUs), based on 2022 water user records, that will contribute wastewater to the wastewater collection system of the Village of Almont and wastewater treatment.

Table 1 below summarizes the current and projected population for the Village of Almont and Lapeer County. Historical population data shows an increase in population from 1990 to 2000, a decrease in population from 2000 to 2010, and an increase from 2010 to 2020. It is expected for the Village population to reach 3,833 people by 2040.

Table 1: Population History and Projections

Year	1990	2000	2010	2020	2025	2030	2040
Village of Almont	2,354	2,803	2,674	2,846	3,035	3,274	3,833
Annual % Change	-	1.91%	-0.46%	0.45%	1.71%	1.71%	1.71%
Lapeer County	74,768	87,904	88,319	88,351	88,915	89,343	87,355
Annual % Change	-	1.76%	0.05%	0.01%	0.13%	0.10%	-0.22%

D. Economic Characteristics

As of 2021 34.5% of employed people in the Village of Almont were employed in Manufacturing. The next highest category is Educational services, health care, and social assistance at 20.7% followed by Professional, scientific, management, administrative, and waste management services at 10.4% of employed people in the Village of Almont.

Median income statistics from the 2020 U.S. Census estimates list the median household income for the Village at $70,022 (2022 dollars). shows the median household income for Village of Almont compared to the County and State.

Table 2: Median Household Income		
	Per Capita Income	Median Household Income
Village of Almont	$29,696	$70,022
Lapeer County	$33,694	$71,479
State of Michigan	$34,768	$63,202

E. Existing Facilities

1. Collection System

The Village of Almont owns and maintains a sanitary wastewater collection system. The system is currently made up of approximately 14 miles of gravity sewer of various sizes.

2. Lift Stations

The Village of Almont currently operates four sanitary sewer pump stations. These pump stations are located on June Drive, E. St. Clair, Howland Road and Jonathon Drive. These pumps lift sewage from low areas to some of the 14 miles of gravity sewer line that the DPW maintains.

3. Wastewater Treatment Plant

The Wastewater Treatment Plant for the Village of Almont is located at 406 Spring Street. The WWTP facilities was designed to remove solids and organic matter from the wastewater stream and to also remove phosphorus and ammonia nitrogen compounds, which promote plant life in the Clinton River. These compounds also inhibit recreational use of public waters and endanger aquatic life in the receiving stream. The plant included mechanically a cleaned fine bar screen, a vortex grit removal system, secondary treatment capabilities(a biological process in which organic matter and soluble and suspended solids are removed), two oxidation ditches to provide a medium where bacteria and micro-organisms can feed on dissolved organic material and ammonia nitrogen, two secondary clarifiers, a tertiary treatment (sand filters) system, ultraviolet disinfection, a capacity for the storage of six months of sludge, and a modern laboratory with analytical instruments capable of performing all of the required chemical and biological tests. The facility has met or exceeded all standards set by the state and federal regulatory agencies**.** The Village of Almont made major repairs to the WWTP in 2018, the repairs consisted of repairing the two 290,000 gallon oxidization ditches as well as the two 30 foot clarifiers.

In 2004 a 2,000,000-gallon equalization basin was constructed along with an expansion of the sludge storage system so that the treatment plant could operate in a more cost-effective manner. This basin holds excess flow and allows the basin's stored volume to slowly drain diluted sewage back through the plant. The plant influent pumps were also upgraded, and the plant now has a design average flow of 470,000 gallons a day.

4. Current Wastewater Flows

<u>Average Influent Flows</u>

Influent flows are not The average effluent flow recorded at the Village WWTP in 2022 was 0.308 million gallons per day (MGD) with a peak single day discharge of 1.29 MGD.

Wet Weather Flow – Infiltration and Inflow Evaluation

An Infiltration and Inflow Evaluation has not been completed. The WWTP staff are aware that infiltration and inflow are occurring when there is rainfall. The Village of Almont DPW runs a downspout disconnection awareness program to encourage residents to disconnect their downspouts from the sanitary sewer system. It is recommended to have an evaluation completed of the collection system.

F. Need for the Project

Most of the existing process equipment that was not updated in the 2018 WWTP Improvement project is beyond its useful life or causing operational problems and should be replaced to maintain reliable and effective wastewater treatment service.

1. Compliance Status

The Village of Almont WWTP operates under NPDES permit MI0020931. A copy of the current NPDES permit is included in Appendix B. The current permitted effluent limitations are summarized below in Table 1.

Table 1. NPDES Permit Limitations									
	Maximum Limits for Quality or Loading				Maximum Limits for Quality or Concentration				Frequency
Parameter	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units	
Flow	(report)		(report)	MGD	---	---	---	---	Daily
CBOD5:									
June – October	16	39	(report)	lbs/day	4	---	10	mg/l	3x Weekly
November	59	86	(report)	lbs/day	15	---	22	mg/l	3x Weekly
December – April	63	94	(report)	lbs/day	16	---	24	mg/l	3x Weekly
May	67	98	(report)	lbs/day	17	---	25	mg/l	3x Weekly
TSS:									
June – October	78	120	(report)	lbs/day	20	30	(report)	mg/l	3x Weekly
November – May	120	180	(report)	lbs/day	30	45	(report)	mg/l	3x Weekly
Ammonia Nitrogen (as N)									
June – October	2	7.8	(report)	lbs/day	0.5	---	2	mg/l	3x Weekly
November	15	17	(report)	lbs/day	3.9	---	4.3	mg/l	3x Weekly
December – April	16	18	(report)	lbs/day	4.1	---	4.7	mg/l	3x Weekly
May	16	19	(report)	lbs/day	4.0	---	4.9	mg/l	3x Weekly
Total Phosphorus (as P)	3.9	---	(report)	lbs/day	1.0	---	(report)	mg/l	5x Weekly
Fecal Coliform Bacteria	---	---	---	---	200	400	(report)	cts/100 ml	3x Weekly

Parameter	Min % Monthly	Min % Daily	Units	Frequency
TSS Minimum % Removal:				
Nov – May	85	(report)	%	Monthly

Parameter	Min Daily	Max Daily	Units	Frequency
pH	6.5	9.0	S.U.	5x Weekly
Dissolved Oxygen:	7.0	---	mg/L	3x Weekly

2. Water Quality Problems

There are no documented quality problems or instances of exceedance of NPDES Permit Limitation requirements. The maximum daily flow recorded in 2022 exceeds the 470,000 gallons per day design flow of the WWTP.

3. Projected Needs for the Next 20 Years

The projected 20-year wastewater flows were projected based on the Service Area REU projections presented in Section C above. These flow projections do not include additional lake communities that may be connected to the treatment system in the future. The projected wastewater flows for the design year 2042 are summarized in Table 2.

Table 2. Design Flow Projections	
	Flow (MGD)
Average Daily Flow	0.47
Maximum Daily Flow	1.29

4. Project Objectives

The Village anticipates funding the Wastewater Collection System and Wastewater Treatment Plant Improvements project through the CWSRF program while using local funds and cash reserves for other wastewater system needs. Immediate needed work includes:

- Rebuild WWTP Influent Pumps
- Replace Tertiary System at WWTP
- Upgrade SCADA system at WWTP
- Rebuild Return-Activated Sludge Pumps at WWTP
- Replace WWTP UV Control Centers
- June Drive Force Main Replacement
- Johnathon Lift Station Pump Replacement
- Farnum Drain Main Sewer Interceptor Rehabilitation

5. Future Environment Without the Proposed Project

If the proposed improvements at the WWTP are not performed process equipment that has not already been upgraded will continue to be operated beyond their useful life. Operational problems caused by inefficient equipment and breakdowns of aging equipment. If collection system improvements are not performed then the existing system components will continue to be operated. Lift station vacuum pumps will continue to be operated at a lower efficiency and with significantly greater maintenance requirements than the submersible pumps that the Village intends to replace them with. Force main on June Drive will continue to operate with insufficient capacity and history of broken force main repairs will continue to be required to be performed. Sewer interceptor along the Farnum drain will continue to suffer breaks and blockages requiring additional maintenance operations and expenses.

III. Analysis of Alternatives

A. Identification and Evaluation of Potential Alternatives

Alternatives to accomplish needed improvements to the Village's Waste Water System were developed and evaluated based on their ability to meet the scope of the project while remaining within financial, regulatory, and technical constraints. Project objectives include:

- Ensure reliable wastewater collection and treatment service to the customers.
- Rehabilitate/repair high priority areas of existing wastewater infrastructure.
- Provide facilities capable of providing consistent compliance with regulatory and permit requirements.
- Minimize financial burden to the sewer system users.
- Minimize environmental impact during construction of the improvements project.

Each one of these project alternatives were analyzed individually. The following alternatives were evaluated:

Alternative 1 – No Action
Alternative 2 – Upgrade WWTP Systems
Alternative 3 – Wastewater Collection System Improvements
Alternative 4 – Improvements to both WWTP and Wastewater Collection System

The alternatives are described in detail in the following subsections. Each alternative was initially screened based on effectiveness, constructability, reliability, and financial requirements. Feasible alternatives were then subjected to a comprehensive evaluation with attention to detailed economic, technical, environmental, and public concerns.

Each alternative was evaluated using the proposed design criteria of the existing facility at a maximum monthly design flow of 0.47 MGD.

Alternative 1 was briefly analyzed, however, this alternative was determined to be not feasible for the Village, because it does not meet the project objectives. Alternative 4 was determined to be the principal alternative for detailed evaluation.

Financial analysis of the principal alternative followed a net present worth methodology. Capital costs, operations, maintenance and replacement costs, and salvage values were determined separately and discounted back to present value. The sum of these costs represents the net present worth of the project.

Alternative 1 – No Action

Alternative 1 includes no improvements to the wastewater collection system and WWTP facilities. The existing gravity collection sewer, force main, pump stations, and WWTP would remain in service in their current condition.

The influent pumps, Tertiary Treatment System, SCADA system, Return-Activated Sludge Pumps, and UV Control Centers at the WWTP would continue to operate past their expected useful life. The current issues of constant required maintenance and associated equipment being taken out of service will continue to occur. Outdated equipment that is operating at lower efficiency than recently replaced components will reduce the overall effectiveness of the wastewater treatment process.

Wastewater Collection System improvements, including replacing June Drive force main, replacing pumps in the Jonathon Lift Station, and replacing or relining the main sewer interceptor along the Farnum Drain, would not be performed. The force main on June Drive has a history of breaks in the force main requiring repair. This will continue to be an issue and repairs will continue to be required when force main breaks occur. The

force main will continue to be undersized for the area it provides wastewater collection service from as additional construction has occurred since the force main was constructed. Johnathon Lift Station will continue to operate using the currently installed vacuum-based pump, which will continue to suffer issues related to loss of prime for the pump and increased maintenance requirements as a result. The Farnum Drain Main Sewer Interceptor will continue to operate and the documented instances of breaks and blockages in the pipe will continue to occur.

The overall efficiency of the Wastewater Collection and Treatment Systems will continue to operate less efficiently than intended with greater maintenance costs and downtime for repairs.

The “No Action” alternative does not meet the project objectives and will not be evaluated further as principal alternative.

Alternative 2 – Upgrade WWTP Systems

Alternative 2 includes the following improvements to the WWTP being performed: rebuild influent pumps, replace tertiary treatment system, upgrade Supervisory Control and Data Acquisition (SCADA) system, rebuild return-activated sludge pump, and replace UV control centers.

The existing influent pumps would be upgraded or rehabilitated solving the current issues with constant required maintenance. The existing tertiary sand filter system would be replaced as it is outdated and in need of repairs. The SCADA system would be upgraded, replacing outdated and inefficient components. The aging return-activated sludge pumps would be rebuilt or replaced solving ongoing issues of constant required maintenance. The UV Control Centers, which are outdated and are not functioning at required efficiency would be replaced.

This alternative would solve problems with the efficiency and maintenance requirements of systems at the WWTP in addition to replacing outdated and aging components. This would not address the identified issues with breaks and blockages causing infiltration through force main on June Street and Farnum Drain Main Sewer Interceptor.

Alternative 3 – Wastewater Collection System Improvements

Alternative 3 includes replacing and increasing the size of the June Drive force main, replacing the Jonathon Lift Station pumps with submersible pumps, and replace or reline the Farnum drain main sewer interceptor.

The June Drive force main would be replaced and upsized to provide additional capacity for the K-Lynn Subdivision. This would also address concerns with the history of force main breaks leaking sewage and requiring repair. The Jonathon Lift Station existing vacuum-based pumps would be replaced with submersible wastewater pumps, solving ongoing issues of outdated vacuum pumps losing prime and requiring additional maintenance. The Farnum Drain Main Sewer Interceptor would be relined or replaced, addressing documented problems with sewer service being interrupted by breaks or blockages.

This alternative would address documented issues with compromised collection system segments leaking sewage in to the surrounding groundwater as well as providing avenues for Infiltration and Inflow in to the system. It would also increase the reliability of the collection system and decrease maintenance requirements for the lift station pumping wastewater to the WWTP. This would not address issues of outdated and aging equipment in need of rehabilitation at the WWTP which are lowering the overall efficiency of the wastewater treatment process.

Alternative 4 – Improvements to both WWTP and Wastewater Collection System

Alternative 4 includes performing all improvements included in both Alternative 3 and Alternative 4. This would address documented problems with the collection system as well as the treatment system at the

WWTP. By performing the improvements in both Alternatives 3 and 4 it addresses the needs to provide reliable and efficient wastewater treatment as well as preventing sewage from leaking in to the surrounding groundwater and reducing maintenance requirements for aging system components. This alternative best meets the project goals of providing reliable and efficient wastewater treatment and was analyzed further for feasibility and cost-effective funding options.

B. Analysis of Principal Alternatives

Multiple feasible principal alternatives were developed that meet the project objectives. These alternatives are analyzed further and are summarized in the following sections.

1. The Monetary Evaluation

The monetary evaluation includes a present worth analysis. This analysis does not identify the source of funds but compares cost uniformly for each alternative over the 20-year planning period. The present worth is the sum which, if invested now at a given interest rate, would provide the same funds required paying all present and future costs. The total present worth, used to compare the principal alternatives, is the sum of the initial capital cost, plus the present worth of OM&R costs, minus the present worth of the salvage value at the end of the 20-year planning period. The discount rate used in computing the present worth cost was established by EGLE at 2.0% for current SRF Projects.

The salvage value is calculated at the end of 20 years where portions of the project structures or equipment may have a salvage value, which is determined by using a straight-line depreciation. The present worth of the 20-year salvage value is then computed using the discount rate of 2.0%. The MDEQ guidance document establishes the estimated life for the project structures and equipment to assess salvage values at 20-year planning period. In general, concrete structures, earthwork basins, and piping have a useful life of 30-50 years and equipment has a useful life of 10-20 years.

The cost of labor, equipment and materials is not escalated over the 20-year life since it assumes any increase in these costs will apply equally to all alternatives. The interest charge during construction (capitalized interest) would not significantly influence the comparison of alternatives and was not included in the cost-effective analysis.

To ensure uniformity of the cost comparisons, the following cost comparison details were specifically addressed and were applied in the present worth analysis as per the MDEQ guidance.

- Capital costs were included for all identified improvements.
- Sunk costs were excluded from the present worth cost. Sunk costs for the project include existing land, existing waterworks facilities, and outstanding bond indebtedness.
- Operation, Maintenance, and Replacement, (OM&R) costs were included in the present worth cost.
- The economic comparison is based on a 20-year planning period and a discount rate of 0.5%.
- Salvage values were included in the present worth cost.
- Energy costs escalation was assumed equal between the alternatives and therefore are not adjusted over the 20-year period.
- Land purchase/acquisition costs were not applicable to the principal alternatives.
- Mitigation costs are included in the Project Costs and considered in the present worth cost.
- Total existing and projected user costs for the project are presented.

2. Partitioning of the Project

There currently are no requirements to start on one section of the project prior to the whole improvements project.

3. Staging Construction

It is not anticipated that this project will need to be broken out into multiple stages/segments.

4. The Environmental Evaluation

The major environmental impacts were compared for the principal alternatives. Objectives of the comparison are to highlight significantly differing environmental impacts.

Finished structures to be constructed for all the alternatives would be located above the 100-year floodplain elevations where feasible.

The mitigation measures will be designed and implemented as required for the construction phase of the project, including dust control and erosion control activities, and restoration.

5. Implementability and Public Participation

The Draft Project Plan was placed on display at the Almont Village Hall.

A Public Hearing was held on April 26th, 2023, at 7:00 p.m. to discuss project alternatives in terms of effectiveness, implementability, project costs, anticipated user rates and environmental Impacts. A copy of the public notice is included in Appendix E.

6. Technical and Other Considerations

Industrial Pretreatment

The Village of Almont has no significant or categorical wastewater users and does not currently administer an Industrial Pretreatment Program.

Growth Capacity

All of the feasible alternatives were designed to meet the existing and project 20-year wastewater needs. The selected population growth rate of 1.71% annually was estimated using the best available information, including Census data, regional planning agency projections, and current sewer user billing records.

Reliability

The alternatives were evaluated with equal treatment reliability to consistently meet the permit limitations throughout the useful life of the project.

Alternative Sites and Routings

All proposed improvements will be constructed at locations of existing wastewater collection or treatment facilities. No sewers, force mains, or pump stations equipment are proposed to be constructed at new locations.

Contamination at the Project Site

An examination of the state's list of contaminated sites was previously performed. The Village of Almont site is not a known area of contamination.

IV. SELECTED ALTERNATIVE

A. Description of the Selected Alternative

The objectives of the wastewater collection and treatment system improvements project are identified as:

- Ensure reliable wastewater collection and treatment to the customers.
- Rehabilitate/repair high priority areas of existing wastewater infrastructure.
- Provide facilities capable of providing consistent compliance with regulatory and permit requirements.
- Minimize financial burden to the sewer system users.
- Minimize environmental impact during construction of the improvements project.

Each feasible alternative that met the project objectives was reviewed for effectiveness, reliability, implementability, environmental impacts, and cost effectiveness.

The present worth analysis determined that Alternative 4 combining both Alternatives 2 and 3 provide the most cost effective solution while fulfilling the project goals. Improvements to both WWTP and Wastewater Collection System is the Selected Alternative.

Additional discussion of Selected Alternative presented below.

1. Relevant Design Parameters

The force main, gravity sewer, lift station pumps, and WWTP equipment will be upgraded and replaced in the same locations the existing facilities are already located.

The lift station will be upgraded with new, more efficient pumps as well as upgrading the controls to meet code requirements. The force main will be replaced and upsized and the gravity sewer will be replaced or relined in their existing locations. Improvements and replacement of equipment at the WWTP will be reconstructed in the same locations.

2. Controlling Factors

Factors that control the design of the proposed project include:

- Footprint and quantity of replacement equipment
- Maintenance required
- Operation reliability
- Automation
- Efficiency

3. Sensitive Features and Mitigation

It is not anticipated that the Selected Alternative will have permanent negative impacts to sensitive areas (wetlands, floodplains, or habitat for endangered species). Proposed construction is limited to road ROW's. All work will be performed in accordance with necessary permit requirements. Figure A3 shows locations of wetlands. Figure A4 illustrate the flood zones developed by FEMA.

4. Project Delivery Method

The Village has reviewed all four methods and summarized comparisons are outlined below.

<u>Design-Bid-Build (DBB)</u>

Many public infrastructure projects are delivered using the DBB method. In the DBB method, an engineer works closely with the Village and prepares the project bidding documents including the construction drawings and specifications.

General contractors submit bids based on the plans and specifications, and the lowest, responsible bidder is awarded the project. The general contractor pricing includes their subcontractors, or trade contractors, to perform specialized work such as electrical/controls, mechanical work, concrete work, etc. Typically, the engineering firm that developed the design provides construction observation and construction administration services during the construction phase. In this alternative there are three parties – the Owner, the engineer, and the general contractor.

The following advantages are offered by the DBB method:

- Well understood and accepted.
- Independent oversight of Builder.
- Open to Owner involvement during design.

The following disadvantages are offered by the DBB method:

- Pricing is not known until the design process is complete.
- Contractor selected based on low bid not on value, knowledge, and experience brought to the team.

Construction Management At-Risk (CMAR)

CMAR is similar to DBB in that the engineering/design contract is separate from the construction contract. However, in the CMAR method, a construction management firm (CM) is hired independently by the Village before or early on in the design process. An engineer works closely with the Village and the CM during the entire design process. The CM provides input to the engineer and Owner through the entire design process. The engineer prepares the construction drawings and specifications while the CM prepares the bidding documents and obtains pricing from their subcontractors and suppliers.

The CM develops a Guaranteed Maximum Price (GMP). In this alternative there are three parties, the Owner, the engineer, and the independently contracted CM firm.

The following advantages are offered by the CMAR method:

- Open to Owner involvement during design.
- Early integration of Builder.
- Provides early and continuous constructability review.
- Provides early certainty of costs.
- Pricing and design may be conducted in parallel.
- Reduced likelihood of claims compared to the DBB alternative.

The following disadvantages are offered by the CMAR method:

- Not a single source of responsibility.
- No legal obligation linking Designer to Builder.
- Potential for disputes, claims and change orders.

Fixed Price Design Build (FPDB)

Fixed Price Design Build (FPDB) is a delivery method where the Owner designates one firm, a design-builder (DB), under one contract for the design and construction of the project. The DB provides a fixed price based on a defined scope, requirements, and schedule; but before complete and detailed design documents have been prepared.

Owner involvement during the design process is typically very limited after the fixed price is accepted. The "book is closed" on pricing around the 30% mark of the design process.

This particular project is a rehabilitation of an existing treatment facility and appropriate pricing will probably be too high considering the risk to the contractors until 70 to 90% of the plans are developed. The Village staff want to be involved throughout the entire design and construction process. Therefore, FPDB was not considered further for this project.

Progressive Design Build (PDB)

The PDB delivery method is similar to the CMAR method with one major distinction – the design-builder (DB) is under one contract for design and construction of the project. Therefore, the Village has one single firm responsible for the design, schedule, construction, and warrantee of the project. If there are issues that arise during construction or after construction, the Village has one firm to address the issues.

During the latter part of the design phase, the DB prepares the bidding documents and obtains pricing from their subcontractors and suppliers on an open book basis.

If an agreement is reached on the pricing, the Village will move forward collaboratively to construction. With such flexibility, the PDB method allows the Owner to improve the project outcome by participating directly in design decisions. In this alternative there are two parties – the Owner and the DB firm.

The following advantages are offered by the PBD delivery method:

- The Owner can transfer more risk to the DB since there is a single point of responsibility for the design, permitting, construction, and performance warrantee of the project.
- Owner has involvement during the entire design and construction.
- Early integration of Builder.
- Provides early and continuous constructability review.
- Provides early certainty of costs.
- Pricing and design may be conducted in parallel.

Project Delivery Selection

For the current improvements, the Village and engineer will discuss which delivery method is most appropriate for this project and will be determined prior to the commencement of construction.

1. Schedule of Design and Construction

Table 3 presents the proposed project schedule, which follows the CWSRF FY2023 Q4 milestone schedule, assuming that funds will be available in FY2023. Dates are subject to change pending the final CWSRF milestone schedule.

Table 3. Proposed Schedule for Design and Construction

Anticipated Date	Activity
May 2023	Submit Final SRF Project Plan to EGLE

April 2024	Submit Preliminary Plans & Specifications
May 2024	Submit Final Plans & Specifications
July 2024	Bidding
August 2024	MFA Closing
October 2024	Notice to Proceed
December 2025	Complete Construction
February 2026	O&M Manual, Startup Assistance, and Record Drawings

2. Cost Summary

The estimated costs for the Selected Alternative which includes the alternatives from each project area is $2.75 mil.

B. Authority to Implement the Selected Alternative

Implementation of a selected alternative is the responsibility of the Village of Almont

The Village Council selected an alternative at the April 26th, 2023, at 7:00 p.m. Public Hearing. A copy of the resolution is included in Appendix E.

C. User Costs

The Village funds wastewater treatment operations through user fees billed to the customer communities based on the total REUs for each community. The customer communities then distribute these charges to individual sewer users.

User costs from this project were analyzed. The Village funds wastewater treatment operations through user fees billed to the customer communities based on the total REUs for each community. The customer communities then distribute these charges to individual sewer users.

Using an interest rate of 2.5% (estimated) annually over 20 years, the estimated annual debt service for Selected Alternative is $176,517.00.

Using an interest rate of 2.5% (estimated) annually over 30 years, the estimated annual debt service for Selected Alternative is $131,472.00.

Actual monthly costs will vary depending on the final CWSRF loan amount, finance terms, and other potential Federal or State Grants.

The exact increase in a customer's sewer bill will depend on REU variability and the customer community's existing rate structure. A Municipal Financial Advisor should be consulted to confirm and refine these rates.

D. Overburdened Community Status

Part 53, of the NREPA, provides for several benefits to municipalities who meet the state's criteria for overburdened community status. Those benefits include additional priority points and extended loan terms. The

Overburdened Community Status Determination Worksheets are included in Appendix C. Using EGLE Overburdened Community criteria it has been determined that the Village of Almont will not qualify as an overburdened community before or after this project is completed.

E. Useful Life

The Village intends to secure a 20-year SRF loan for the construction of the selected alternative.

The weighted useful life of the assets included within the project has been calculated to be approximately 50 years for the force main and piping, 20 years for the lift station, and approximately 30-50 years for the WWTP equipment which exceeds the 20-year loan period. The weighted useful life is the total of all calculated life values (each asset's dollar value times its estimated useful life) divided by the total estimate of all the project dollars spent on those assets. This analysis verifies that the components of the Selected Alternative will cost-effectively address the treatment requirements for the term of the loan.

V. Environmental Impacts

A. Description of the Impacts

The potential environmental impacts of the Selected Alternative are evaluated in this section of the project plan. The analyses of impacts are divided into direct, indirect, and cumulative impacts. Direct environmental impacts are those that are directly attributable to the construction and operation of the project. Indirect impacts are caused by the project but are removed in time and/or distance and are often considered secondary in nature. Cumulative impacts are those impacts that increase in magnitude over time, or result from individually minor, but collectively significant actions.

1. Beneficial and Adverse Impacts

A discussion of the full range of potential impacts (i.e., direct, indirect and cumulative) must identify the nature of the impacts in terms of both beneficial and adverse impacts. The following section will describe the impacts resulting from the Selected Alternative with special emphasis on cultural or environmentally sensitive resources.

2. Short-Term and Long-Term Impacts

The analysis includes trade-offs between short-term uses and the maintenance enhancement of long-term productivity and vice versa.

3. Irreversible or Irretrievable Resources

The analysis of the environmental impacts also includes any irreversible commitments or use of irretrievable resources, such as the commitment of construction materials, energy, and land to the proposed project.

B. Description of the Impacts

1. Direct Impacts

Direct impacts are the environmental impacts directly attributive to the construction and operation of the project. The effects of the proposed project are considered for each of the following environmental factors:

Historic, Archaeological, Geological, Cultural or Recreational

An application for a Section 106 Review of the previous project will be made to the Environmental Review Coordinator at the State Historic Preservation Office.

Typically, on a project not affecting historically significant structures themselves, the SHPO focuses on disturbance to the surrounding landscape. Removal of mature trees and significant alterations of the existing landscape may affect a property's overall aesthetic value and therefore its ability to be listed on the federal register.

The proposed project construction is limited to the existing wastewater treatment plant property and lift stations, therefore minimal disturbances to the surrounding landscape is anticipated.

Natural Setting and Sensitive Ecosystems

The Selected Alternative is not anticipated to impact any sensitive ecosystems.

Existing and Future Quality of Surface Water and Groundwater

A primary goal of the project is to maintain reliable wastewater service and compliance with the facility's NPDES discharge permit. The proposed project is not anticipated to cause changes to the quality of nearby surface or groundwater.

Consumption of Materials, Land, Energy, Construction and Operation

Construction materials, public funds, energy and manpower will be consumed to construct and operate the proposed improvements. No known shortage of these items exists, nor is it expected that a shortage of these items will result from implementing this project.

The only chemicals used during the construction would be fertilizers used after the seeding and mulching of disturbed areas from the construction operations.

Energy (both electrical and fossil fuels) will be used during the construction of the improvements.

Human, Social and Economic Impacts

There will be no dislocation of people during the construction. A minimal impact to residents is anticipated because the construction work would occur at the WWTP site and lift stations.

Employment of some residents by the contractor(s) is a possibility for certain construction operations.

Construction and Operational Impacts

A minor impact on local traffic may occur during the construction of the proposed project. During construction, equipment will increase local noise and dust levels during operations. There will be a short-term adverse impact on air quality during the construction phase due to dust and construction equipment emissions generated during the minimal excavation operations.

2. Indirect Impacts

Indirect impacts are those caused by the proposed project but removed in time and/or distance. Indirect impacts are often secondary in nature and are generally caused by residential and/or commercial development made possible by the project.

Examples of indirect impacts include undirected growth including additional traffic, over-extended police and fire protection, or heavy financial burden on existing and future residents for the cost of the wastewater system facilities. It is not expected that the proposed project would cause any significant undirected growth that would result in changes to zoning, population density, or types of developments found throughout Almont Township, including residential, commercial and industrial areas.

Transportation and infrastructure is already in place within the service area, and the proposed project will only serve to enhance the existing infrastructure.

The proposed project will not result in any changes in anticipated land use.

There are no anticipated indirect impacts due to changes to the natural setting or sensitive ecosystems or jeopardy to any endangered species resulting from potential secondary growth.

There are no anticipated changes in air or water quality stemming from any primary or potential secondary development as a result of the improvements since any additional commercial/industrial development would be subject to the individual communities' existing zoning requirements.

3. Cumulative Impacts

There are no anticipated cumulative impacts that would increase in magnitude over time or result from individually minor, but collectively significant actions of the project. There is no anticipated new infrastructure proposed in conjunction with the proposed membrane system improvements.

VI. MITIGATION

A. General

Structural and non-structural measures, that avoid, eliminate, or mitigate adverse impacts on the environment, need to be identified in the project plan. The cost of mitigation was considered during the financial analysis and is included in the unit costs and lump sum prices developed during the capital cost evaluation for the principal alternatives.

The structural measures involve the specific design and construction of the improvements while the non-structural measures involve regulatory, institutional, governmental or private plans, policies or regulations of the County, Village, and Townships. Mitigation of short-term, long-term, and indirect impacts must be considered in the project plan.

B. Short-Term Construction-Related Mitigation

Traffic and Safety Hazard Control

The proposed construction work at the WWTP site and lift stations are not anticipated to require traffic control measures. Proposed force main and gravity sewer work will take place within existing road Right of Way are expected to require traffic control. While operations requiring traffic control are ongoing, the contractor will maintain access to homes and businesses.

Construction site safety is the responsibility of the contractor. The contractor will be required to have only trained people performing all phases of the work. The contractor will also be required to comply with the Occupational Safety & Health Act (OSHA), including using back up alarms on all equipment, having employees trained in hazard control, and maintaining materials safety data sheets (MSDS) for materials that may be used or handled by construction personnel.

Dust Control

Construction activities will result in increased dust in the vicinity of the construction sites during the length of the proposed construction. Mitigation measures to minimize the negative effect of dust on residents and construction workers will be defined in the project specifications. It is anticipated that dust control will be provided by the application of water and/or dust palliative during dry and dusty periods. The Contractor will be required to control dust in accordance with methods described in the project specifications.

Noise Control

Noise levels will increase temporarily during construction of the proposed project. Construction activities will only be allowed during the hours approved by the Village and would be subject to all local noise control ordinances. Construction workers and site visitors may be required to wear earplugs to minimize the effects of long-term noise during the construction operations.

Soil Erosion/Sedimentation Control

The Contractor will be required to obtain a soil erosion and sedimentation control permit from the local agency prior to the start of the work. It is anticipated that mitigation measures that may be utilized will include silt fence, straw bales, rip rap, geotextile fabric, and other such methods, as appropriate.

Restoration of Disturbed Areas

Construction will generally be confined to the existing WWTP site, lift stations, and road Right of Ways. Disturbed areas will be restored in a timely fashion and in accordance with the project specifications.

C. Mitigation of Long-Term Impacts

General Construction

Mitigation measures will be developed to ensure that sensitive environments do not suffer permanent damage. Every effort will be made to avoid potential long-term or irreversible adverse impacts during the construction of the wastewater system improvements.

The construction work at the WWTP site and lift stations will incorporate “best management practice” methods for installing pipelines or disturbing the earth. Wetland, floodplain, and inland stream mitigation would be handled through the permit process. If impacts cannot be avoided, wetland mitigation measures will be used, although this is not anticipated as part of this Project. The design and project specifications will include the proper use of physical measures to reduce soil erosion to a manageable level and any disturbed slope areas will be immediately seeded, mulched and/or sodded to prevent soil erosion and/or sedimentation.

Site and Routing Decisions

All construction activities proposed by this project are located along previously constructed force main and lift stations. Existing force main and gravity sewer to be replaced are located within the roadway, therefore traffic control and detours may be required during construction.

Operational Impacts

During proposed construction and rehabilitation operations at the WWTP, some treatment equipment and processes will be required to be taken offline.

The potential impact of effluent discharge has been investigated, and permit limits have been issued by EGLE that must be met by the treatment process before discharge and are protective of the environment.

D. Mitigation of Indirect Impacts

Master Plan and Zoning

The most effective way of mitigating unrestricted growth in any community is proactive creation of zoning districts and effective enforcement of that zoning. Unrestricted growth in these areas is not anticipated with or without the proposed project.

VII. PUBLIC PARTICIPATION

A. Public Meetings on Project Alternatives

A Public Hearing for the CWSRF Project Plan was held April 26th, 2023, at 7:00 p.m. to discuss the need for the project, principal alternatives, environmental impacts, description of the Recommended Alternative and associated cost estimates and user charge, and schedule of the proposed project. A copy of the public notice, public hearing audio transcript, presentation and resolution is included in Appendix E.

B. Formal Public Hearing

A formal public hearing on project alternatives and user costs was held on April 26th, 2023, at 7:00 p.m. at the Almont Village Hall.

1. Public Hearing Advertisement

The public hearing was advertised on the Village's web site. A copy of the public hearing notice is included in Appendix E.

A copy of the Draft Project Plan was made available to the public at the Almont Village Hall and on the Village's website as stated in the public hearing notice.

2. Public Hearing Transcript

An audio transcript of the public hearing is included in Appendix E of the Final Project Plan.

3. Public Hearing Contents

The following items were discussed at the public hearing:

- Project background.
- A description of the needs.
- A description of the principal alternatives considered.
- A breakdown of capital costs and OM&R costs for each of the principal alternatives.
- Proposed method of financing.
- Comparison of environmental impacts for the principal alternatives.
- Recommended Alternative.
- Proposed monthly user costs for the implementation of the Recommended Alternative for the average residential customer.

4. Comments Received and Answered

No written comments from the public were received before, during or subsequent to the Public Hearing. Questions and comments received during the Public Hearing were addressed as a part of the Question and Answer portion of the presentation.

5. Adoption of the Project Plan

The official period for receiving comments was ended at the close of the formal public hearing. After the close of the public comment period, the Recommended Alternative was selected for implementation by the Almont

Village Council. A copy of the village's resolution to adopt the Project Plan and to implement the selected alternative is included in Appendix E.

Village of Almont

Index of Appendix

Appendix A

Background Information

Figure A1

Lapeer County Map

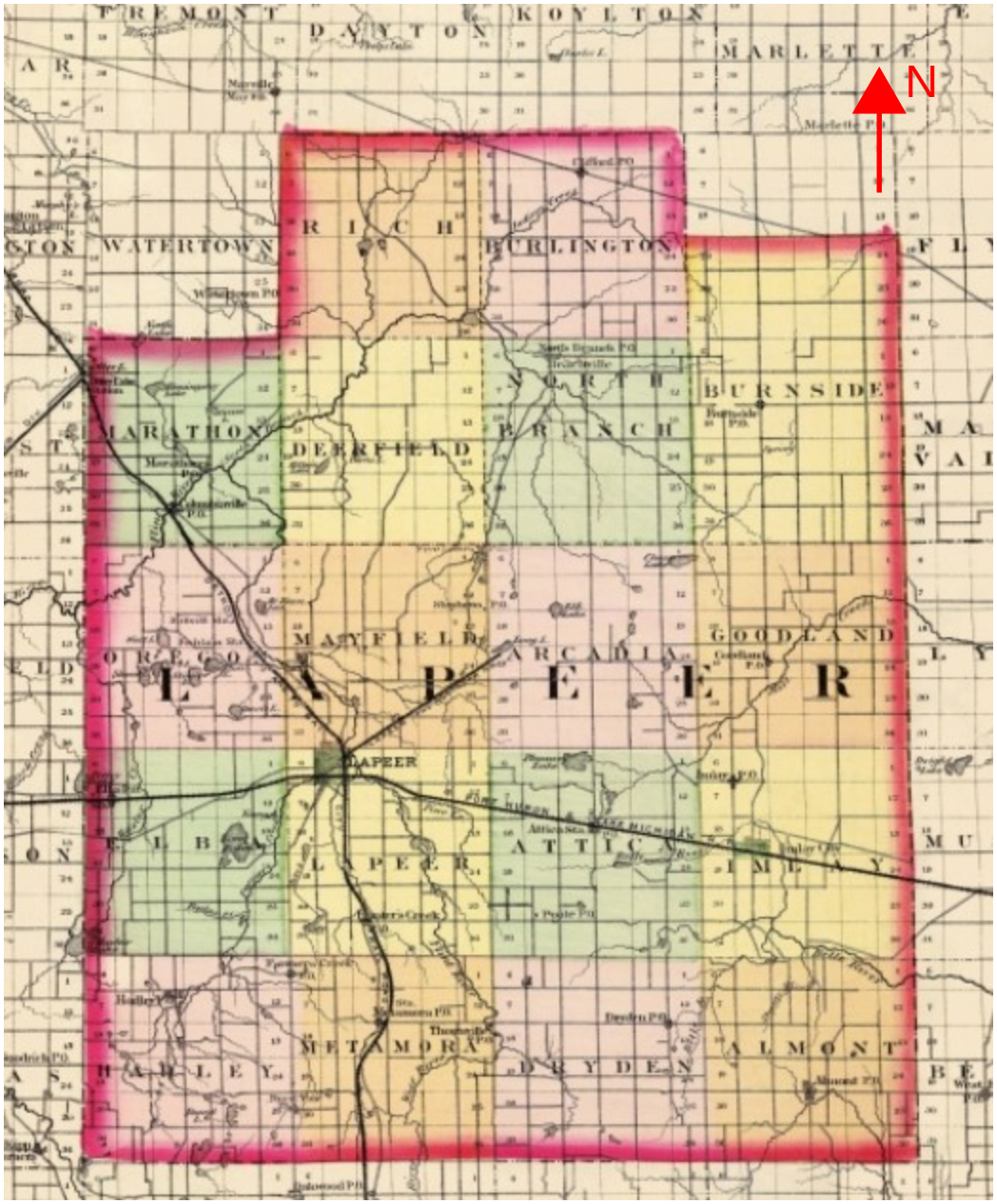
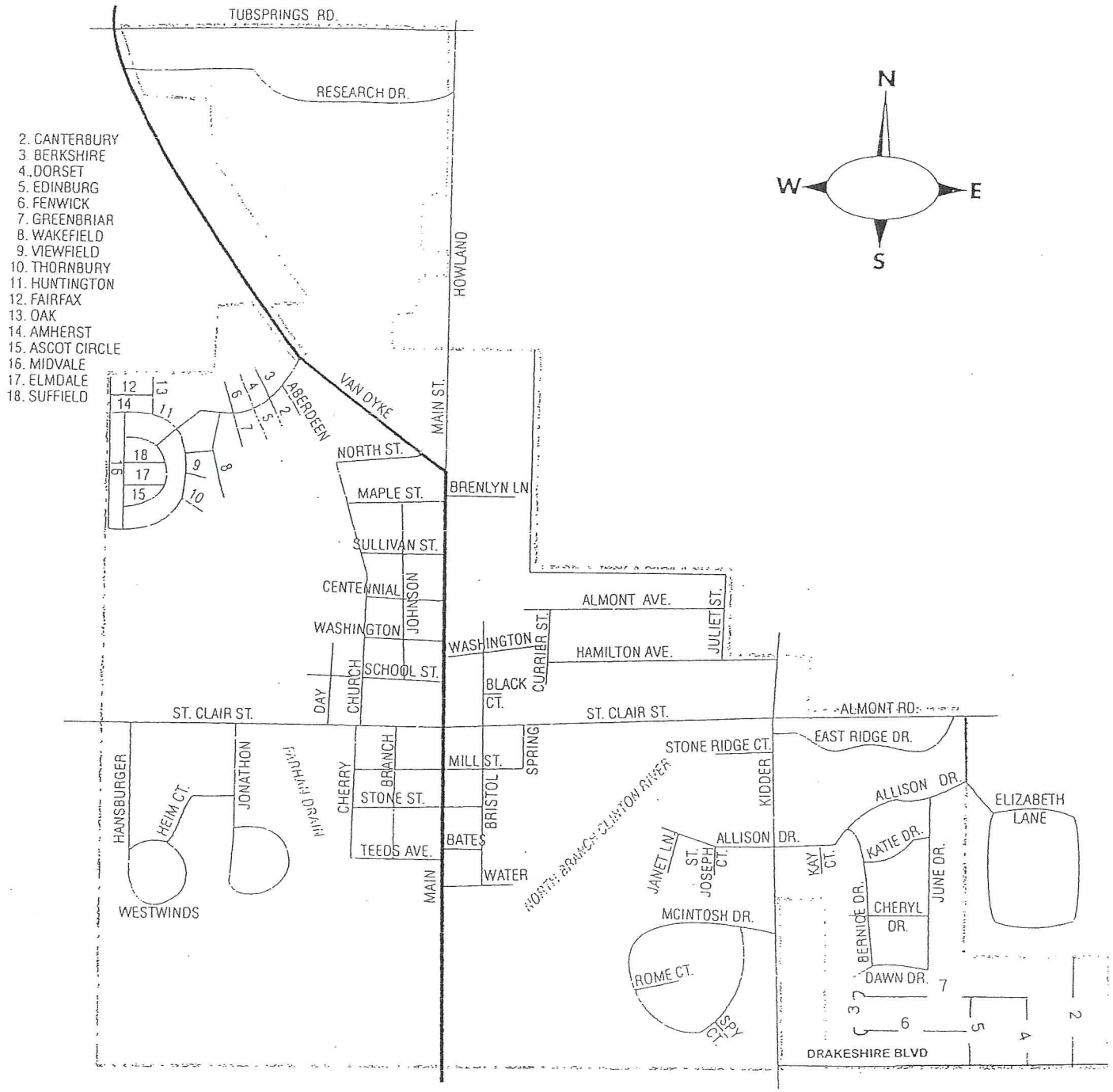

FREMONT
DAYTON
KOYLTON
MARLETTE
N
WATERTOWN
RICH
BURLINGTON
NORTH
BURNSIDE
MARATHON
DEERFIELD
BRANCH
MAYFIELD
ARCADIA
GOODLAND
OREGO
LAPEER
LAPEER
ATTICA
IMLAY
METAMORA
DRYDEN
ALMONT
HADLEY

Figure A2

Village of Almont Map

VILLAGE OF ALMONT



2. CANTERBURY
3. BERKSHIRE
4. DORSET
5. EDINBURG
6. FENWICK
7. GREENBRIAR
8. WAKEFIELD
9. VIEWFIELD
10. THORNBURY
11. HUNTINGTON
12. FAIRFAX
13. OAK
14. AMHERST
15. ASCOT CIRCLE
16. MIDVALE
17. ELMDALE
18. SUFFIELD

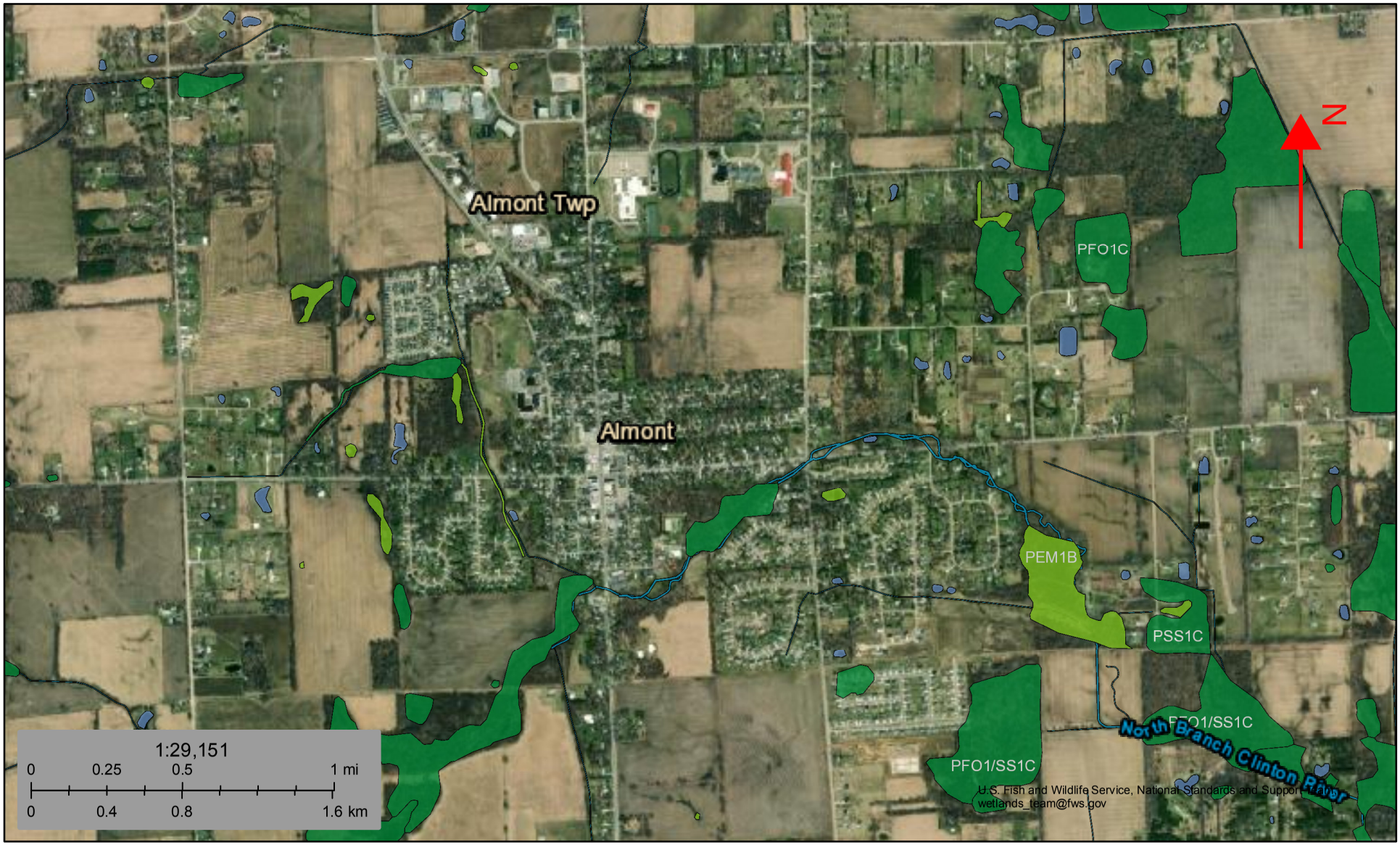
2. BROOKSHIRE DR.
3. BUCKINGHAM DR.
4. DEVENSHIRE DR.
5. NOTTINGHAM DR.
6. WILSHIRE DR.
7. YORSHIRE DR.

Figure A3

USFWS Wetlands Map

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands Map - Village of Almont



March 30, 2023

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.

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

Figure A4

FEMA Floodplain Map

FEMA 100 Year Flood Zones in the U.S.A-Bay County

This map service represents Flood Insurance Rate Map (FIRM) data important for floodplain management, mitigation, and insurance activities for the National Flood Insurance Program (NFIP).

Maxar | Federal Emergency Management Agency (FEMA) | Esri, HERE, Garmin, NRCan

Figure A5

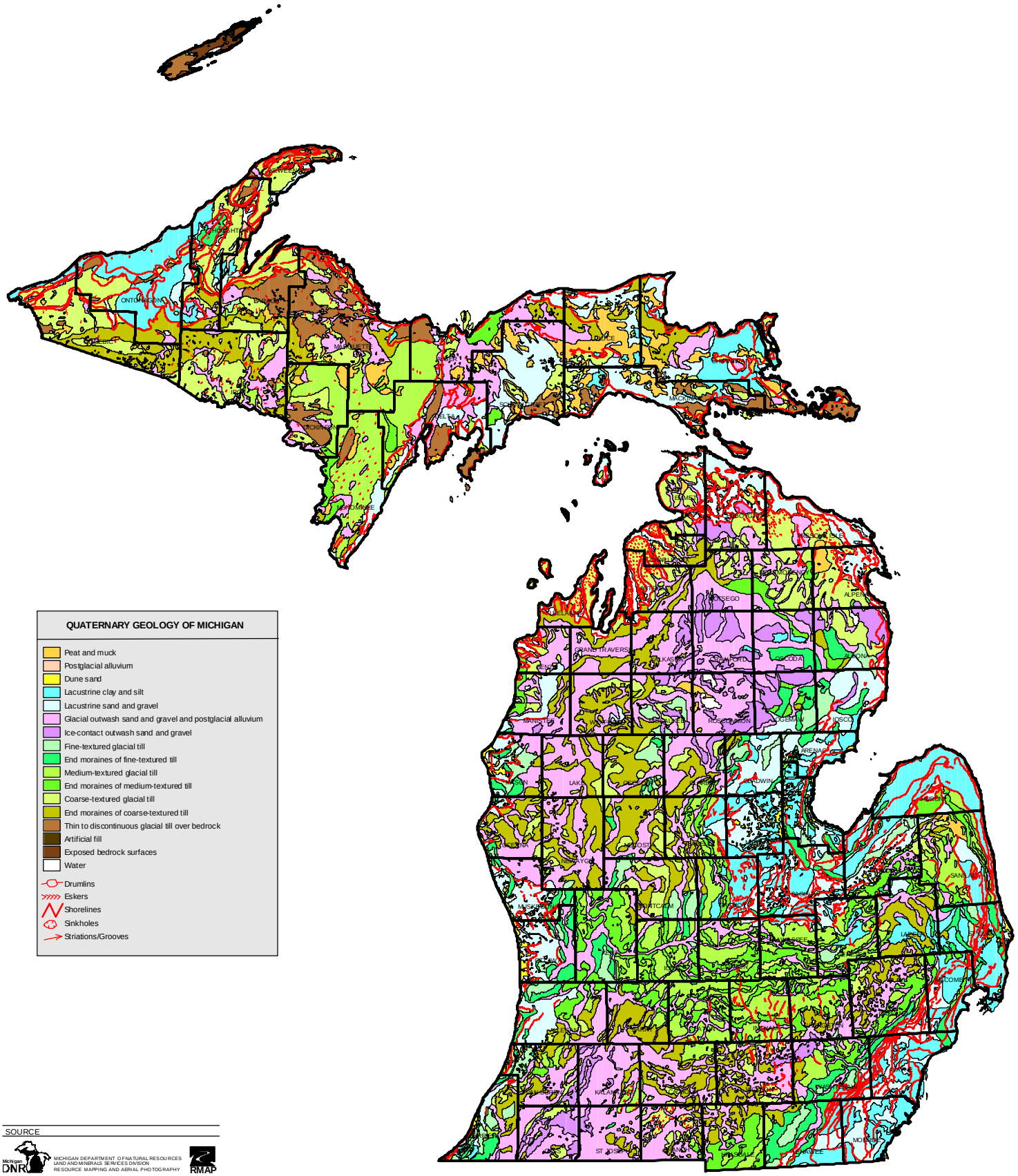
Almont Quadrangle Topographical Map

ATTICA
IMLAY
ADDISON
BRUCE
ALMONT
Dryden
Almont
LAPEER CO
OAKLAND CO
MACOMB CO
Heenan Drain
Brinker Drain
North Branch
Cornell Drain
Belle River
Mud Lake
Young Lake
Webster Cem
Gravel Pit
Almont Airport
Trailer Park
High Sch
Sewage Disposal Plant
Park
Mt Pleasant Cem
Gen Sawyer Mem Park
West Lake
Sand Hill Cem
Hough Cem
Ferguson Cem
St Joseph Hospital
Goodrich Cem
Golf Course
Campground
Second Lake
Clinton River
North Branch Clinton River
HUNTERS CREEK GRADE ROAD
PIPELINE
RAILROAD
BEACKS ROAD
WEBSTER ROAD
SUTTON ROAD
OLD ROAD
HOLLOW CORNERS ROAD
GENERAL SQUIER HIGHWAY
TUBSPRING ROAD
DRYDEN ROAD
HOUGH ROAD
BORDMAN ROAD
ALMONT ROAD
ROSS ROAD
BURT ROAD
FARLEY ROAD
BRISTOL ROAD
GRAHAM ROAD
RIDER ROAD
KIDDER ROAD
GLOVER ROAD
HOWLAND ROAD
SHOEMAKER ROAD
MUIR ROAD
BISHOP ROAD
SAND HILL ROAD
MILL ROAD
HAGERMAN ROAD
MC KAIL ROAD
WALES ROAD
FISHER ROAD
WEYER ROAD
HIRP ROAD
SUMMERS ROAD
WINSLOW ROAD
RAILROAD ROAD
FAIRGROUND ROAD
HENRY ROAD
BOWMAN ROAD
N

Figure A6

Quaternary Geology of Michigan Map

1982 QUATERNARY GEOLOGY OF MICHIGAN



SOURCE

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
LAND AND MINERALS SERVICES DIVISION
RESOURCE MAPPING AND AERIAL PHOTOGRAPHY

Michigan Resource Information System
Part 609, Resource Inventory, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Automated from "Quaternary Geology of Michigan", 1982, 1:500,000 scale, which was compiled by W. R. Farrand, University of Michigan and the Michigan Department of Environmental Quality, Geological Survey Division.

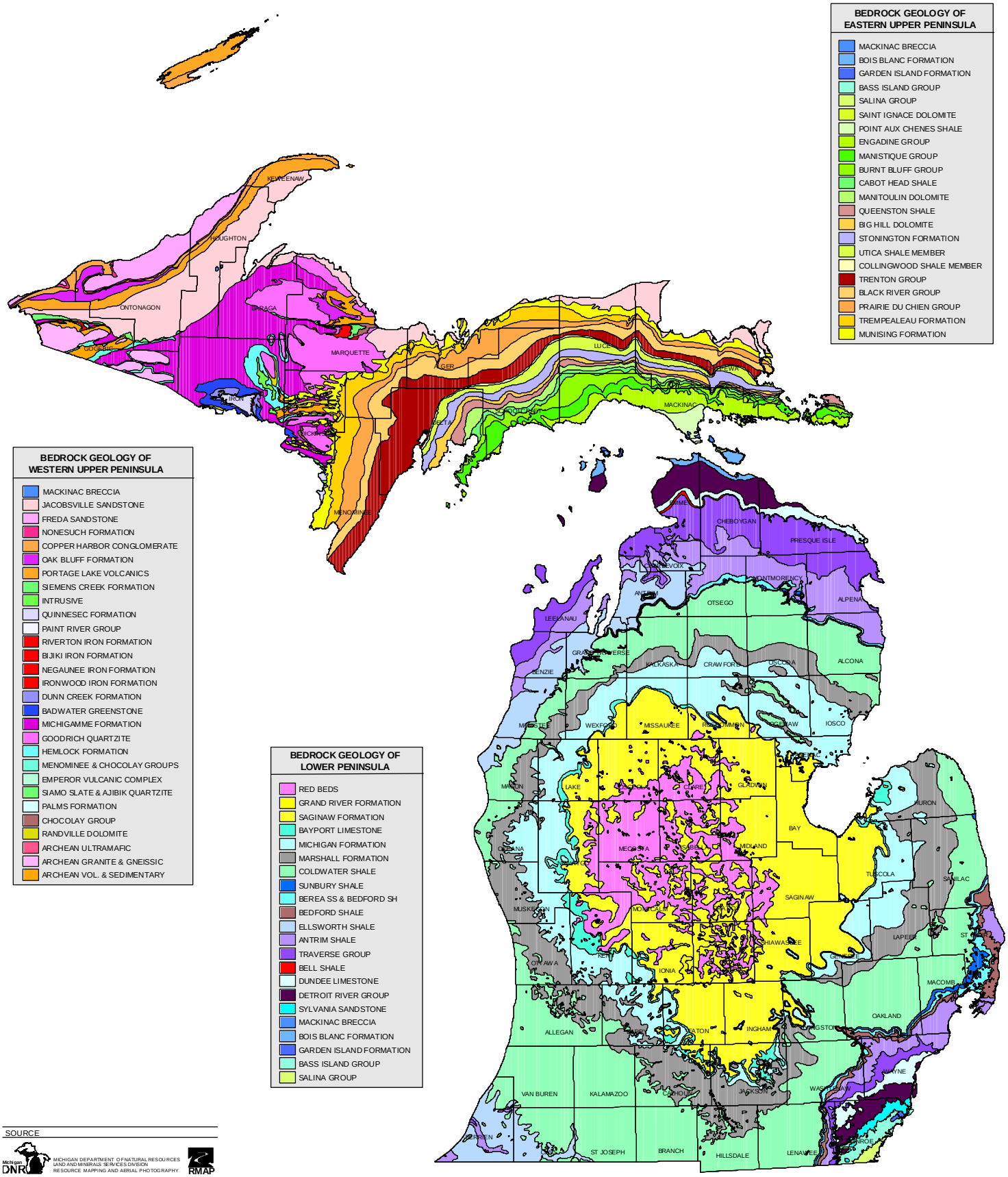
Date 11/12/99

0 20 40 Miles

Figure A7

Bedrock Geology of Michigan Map

1987 BEDROCK GEOLOGY OF MICHIGAN



BEDROCK GEOLOGY OF EASTERN UPPER PENINSULA

- MACKINAC BRECCIA
- BOIS BLANC FORMATION
- GARDEN ISLAND FORMATION
- BASS ISLAND GROUP
- SALINA GROUP
- SAINT IGNACE DOLOMITE
- POINT AUX CHENES SHALE
- ENGADINE GROUP
- MANISTIQUE GROUP
- BURNT BLUFF GROUP
- CABOT HEAD SHALE
- MANITOULIN DOLOMITE
- QUEENSTON SHALE
- BIG HILL DOLOMITE
- STONINGTON FORMATION
- UTICA SHALE MEMBER
- COLLINGWOOD SHALE MEMBER
- TRENTON GROUP
- BLACK RIVER GROUP
- PRAIRIE DU CHIEN GROUP
- TREMPEALEAU FORMATION
- MUNISING FORMATION

BEDROCK GEOLOGY OF WESTERN UPPER PENINSULA

- MACKINAC BRECCIA
- JACOBSVILLE SANDSTONE
- FREDA SANDSTONE
- NONESUCH FORMATION
- COPPER HARBOR CONGLOMERATE
- OAK BLUFF FORMATION
- PORTAGE LAKE VOLCANICS
- SIEMENS CREEK FORMATION
- INTRUSIVE
- QUINNESEC FORMATION
- PAINT RIVER GROUP
- RIVERTON IRON FORMATION
- BIJIKI IRON FORMATION
- NEGAUNEE IRON FORMATION
- IRONWOOD IRON FORMATION
- DUNN CREEK FORMATION
- BADWATER GREENSTONE
- MICHIGAMME FORMATION
- GOODRICH QUARTZITE
- HEMLOCK FORMATION
- MENOMINEE & CHOCOLAY GROUPS
- EMPEROR VULCANIC COMPLEX
- SIAMO SLATE & AJIBIK QUARTZITE
- PALMS FORMATION
- CHOCOLAY GROUP
- RANDVILLE DOLOMITE
- ARCHEAN ULTRAMAFIC
- ARCHEAN GRANITE & GNEISSIC
- ARCHEAN VOL. & SEDIMENTARY

BEDROCK GEOLOGY OF LOWER PENINSULA

- RED BEDS
- GRAND RIVER FORMATION
- SAGINAW FORMATION
- BAYPORT LIMESTONE
- MICHIGAN FORMATION
- MARSHALL FORMATION
- COLDWATER SHALE
- SUNBURY SHALE
- BEREA SS & BEDFORD SH
- BEDFORD SHALE
- ELLSWORTH SHALE
- ANTRIM SHALE
- TRAVERSE GROUP
- BELL SHALE
- DUNDEE LIMESTONE
- DETROIT RIVER GROUP
- SYLVANIA SANDSTONE
- MACKINAC BRECCIA
- BOIS BLANC FORMATION
- GARDEN ISLAND FORMATION
- BASS ISLAND GROUP
- SALINA GROUP

SOURCE

Michigan DNR — MICHIGAN DEPARTMENT OF NATURAL RESOURCES
LAND AND MINERALS SERVICES DIVISION
RESOURCE MAPPING AND AERIAL PHOTOGRAPHY
RMAP

Michigan Resource Information System
Part 609, Resource Inventory, of the Natural Resources and Environmental Petection Act, 1994 PA 451, as amended.

Automated from "Bedrock Geology of Michigan," 1987, 1:500,000 scale, which was compiled from a variety of sources by the Michigan Department of Environmental Quality, Geological Survey Division.

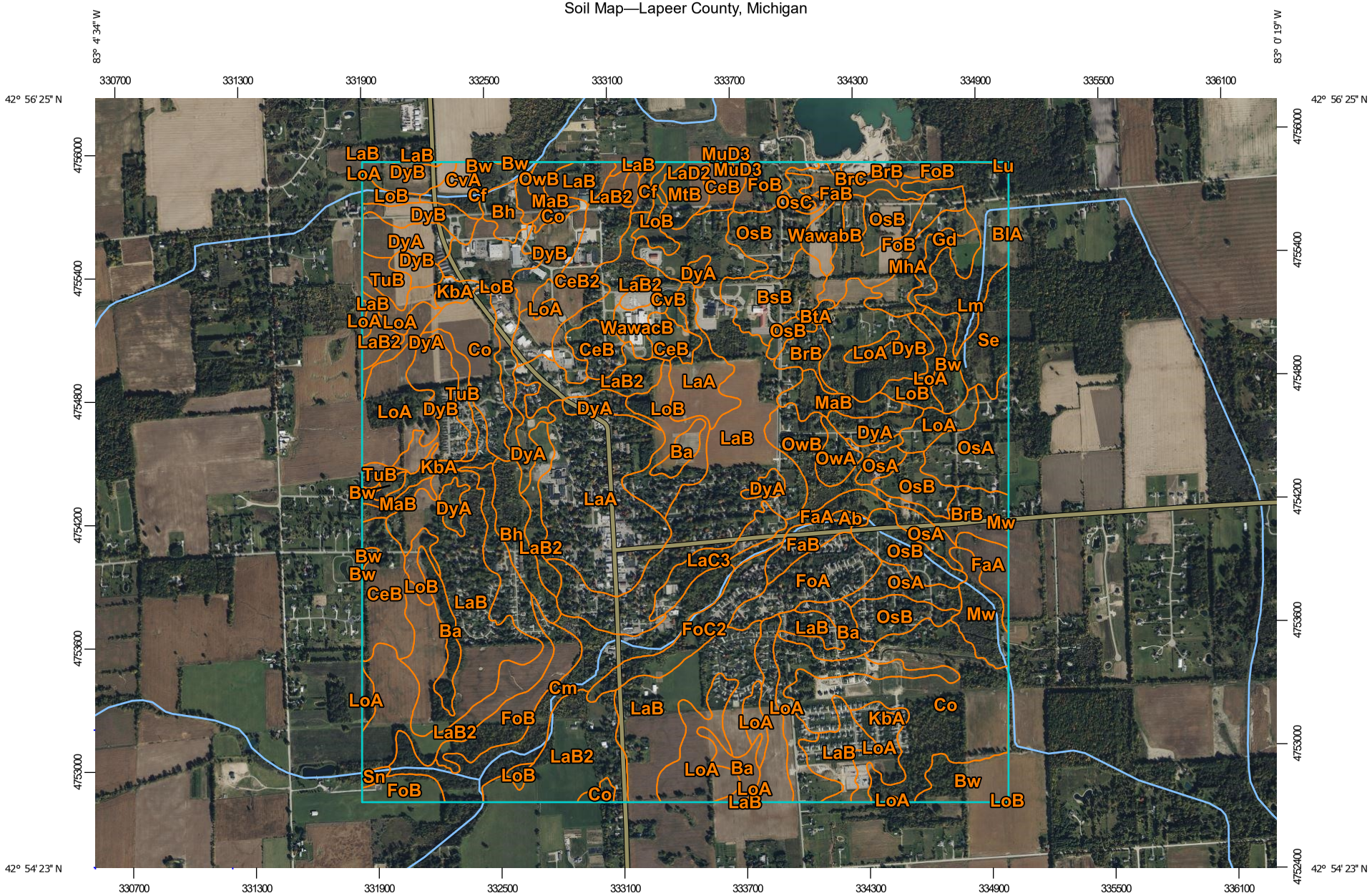
Date 11/12/99

0 20 40 Miles

Figure A8

USDA Soils Map

Soil Map—Lapeer County, Michigan



Map Scale: 1:26,400 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lapeer County, Michigan
Survey Area Data: Version 20, Aug 29, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 9, 2022—Oct 21, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

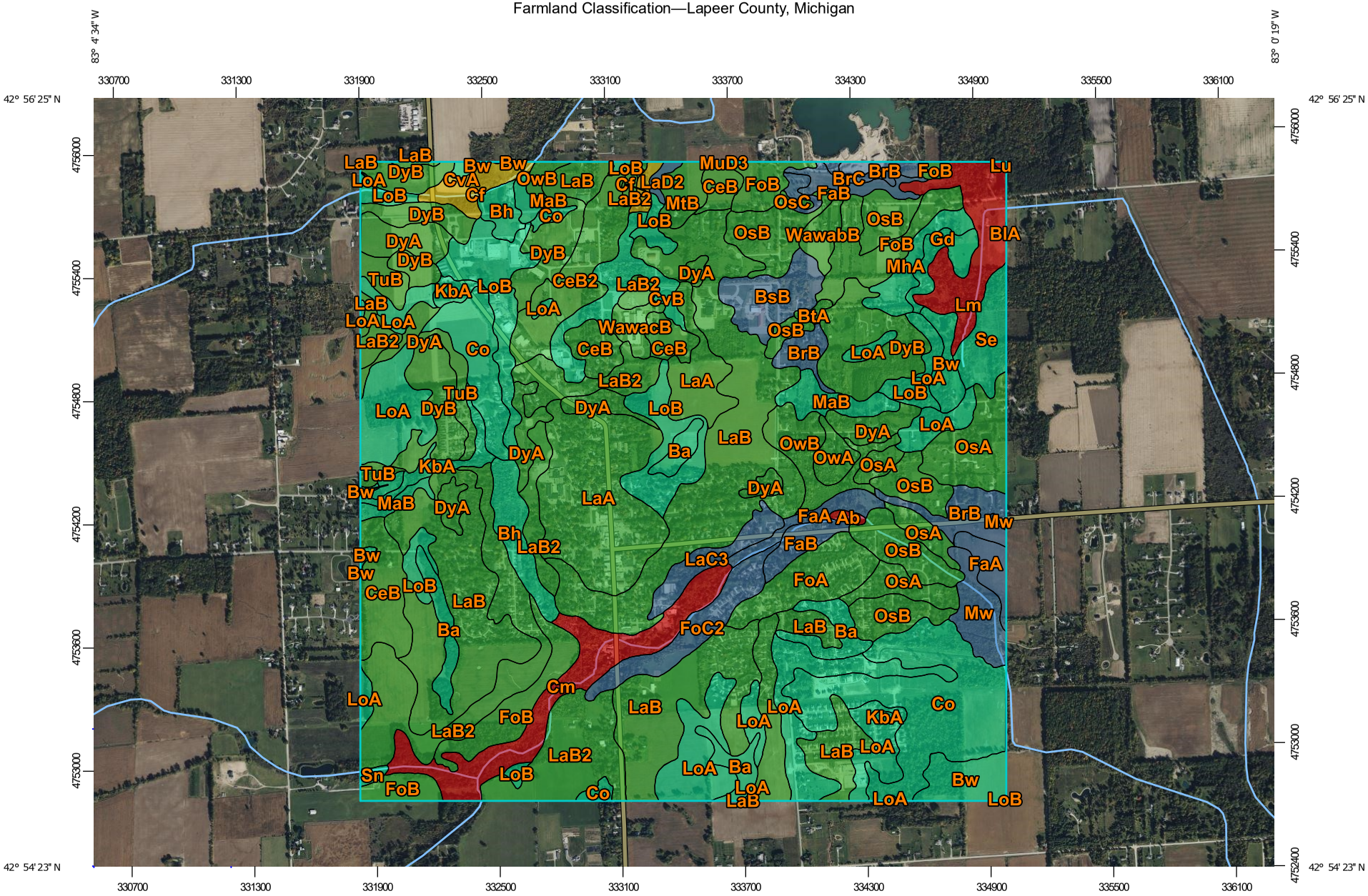
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ab	Abscota loamy sand	2.1	0.1%
Ba	Barry loam	44.4	1.8%
Bh	Berville loam	34.0	1.4%
BlA	Blount loam, Erie-Huron Lake Plain, 0 to 2 percent slopes	0.2	0.0%
BrB	Boyer loamy sand, 1 to 6 percent slopes	38.0	1.6%
BrC	Boyer loamy sand, 6 to 12 percent slopes	2.6	0.1%
BsB	Boyer sandy loam, 1 to 6 percent slopes	30.5	1.2%
BtA	Brady loamy sand, 0 to 2 percent slopes	2.5	0.1%
Bw	Brookston loam	38.9	1.6%
CeB	Celina loam, 2 to 6 percent slopes	65.0	2.7%
CeB2	Celina loam, 2 to 6 percent slopes, moderately eroded	45.8	1.9%
Cf	Ceresco loam	20.7	0.8%
Cm	Cohoctah loam	69.6	2.9%
Co	Colwood loam	152.4	6.2%
CvA	Conover loam, 0 to 2 percent slopes	1.7	0.1%
CvB	Conover loam, 2 to 6 percent slopes	30.8	1.3%
DyA	Dryden sandy loam, 0 to 2 percent slopes	69.0	2.8%
DyB	Dryden sandy loam, 2 to 6 percent slopes	129.7	5.3%
FaA	Fabius-Wasepi sandy loams, 0 to 2 percent slopes	24.9	1.0%
FaB	Fabius-Wasepi sandy loams, 2 to 6 percent slopes	24.1	1.0%
FoA	Fox sandy loam, till plain, 0 to 2 percent slopes	36.5	1.5%
FoB	Fox sandy loam, till plain, 2 to 6 percent slopes	90.4	3.7%
FoC2	Fox sandy loam, Huron Lobe, 6 to 12 percent slopes, eroded	31.3	1.3%
Gd	Gilford sandy loam, till plain, 0 to 2 percent slopes	13.7	0.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KbA	Kibbie loam, 0 to 2 percent slopes	19.7	0.8%
LaA	Lapeer sandy loam, 0 to 2 percent slopes	131.5	5.4%
LaB	Lapeer sandy loam, 2 to 6 percent slopes	382.0	15.7%
LaB2	Lapeer sandy loam, 2 to 6 percent slopes, moderately eroded	204.0	8.4%
LaC3	Lapeer sandy loam, 6 to 12 percent slopes, severely eroded	19.6	0.8%
LaD2	Lapeer sandy loam, 12 to 18 percent slopes, moderately eroded	2.8	0.1%
Lm	Linwood muck	48.3	2.0%
LoA	Locke sandy loam, 0 to 2 percent slopes	167.9	6.9%
LoB	Locke sandy loam, 2 to 6 percent slopes	98.2	4.0%
Lu	Lupton muck	0.5	0.0%
MaB	Macomb sandy loam, 2 to 6 percent slopes	26.9	1.1%
MhA	Matherton loam, 0 to 2 percent slopes	17.7	0.7%
MtB	Glynwood loam, 2 to 6 percent slopes	13.8	0.6%
MuD3	Morley clay loam, 12 to 18 percent slopes, severely eroded	0.1	0.0%
Mw	Mussey-Gilford sandy loams	23.4	1.0%
OsA	Oshtemo sandy loam, 0 to 2 percent slopes	65.9	2.7%
OsB	Oshtemo sandy loam, 2 to 6 percent slopes	103.2	4.2%
OsC	Oshtemo sandy loam, 6 to 12 percent slopes	4.4	0.2%
OwA	Owosso sandy loam, 0 to 2 percent slopes	10.2	0.4%
OwB	Owosso sandy loam, 2 to 6 percent slopes	31.3	1.3%
Se	Sebewa loam, disintegration moraine, 0 to 2 percent slopes	24.1	1.0%
Sn	Sloan loam	2.2	0.1%
TuB	Tuscola very fine sandy loam, 2 to 6 percent slopes	22.6	0.9%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
WawabB	Wawasee loam, 2 to 6 percent slopes	10.9	0.4%
WawacB	Wawasee loam, 2 to 6 percent slopes, eroded	9.7	0.4%
Totals for Area of Interest		**2,439.9**	**100.0%**

Figure A9

USDA Farmland Classification Map



Map Scale: 1:26,400 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

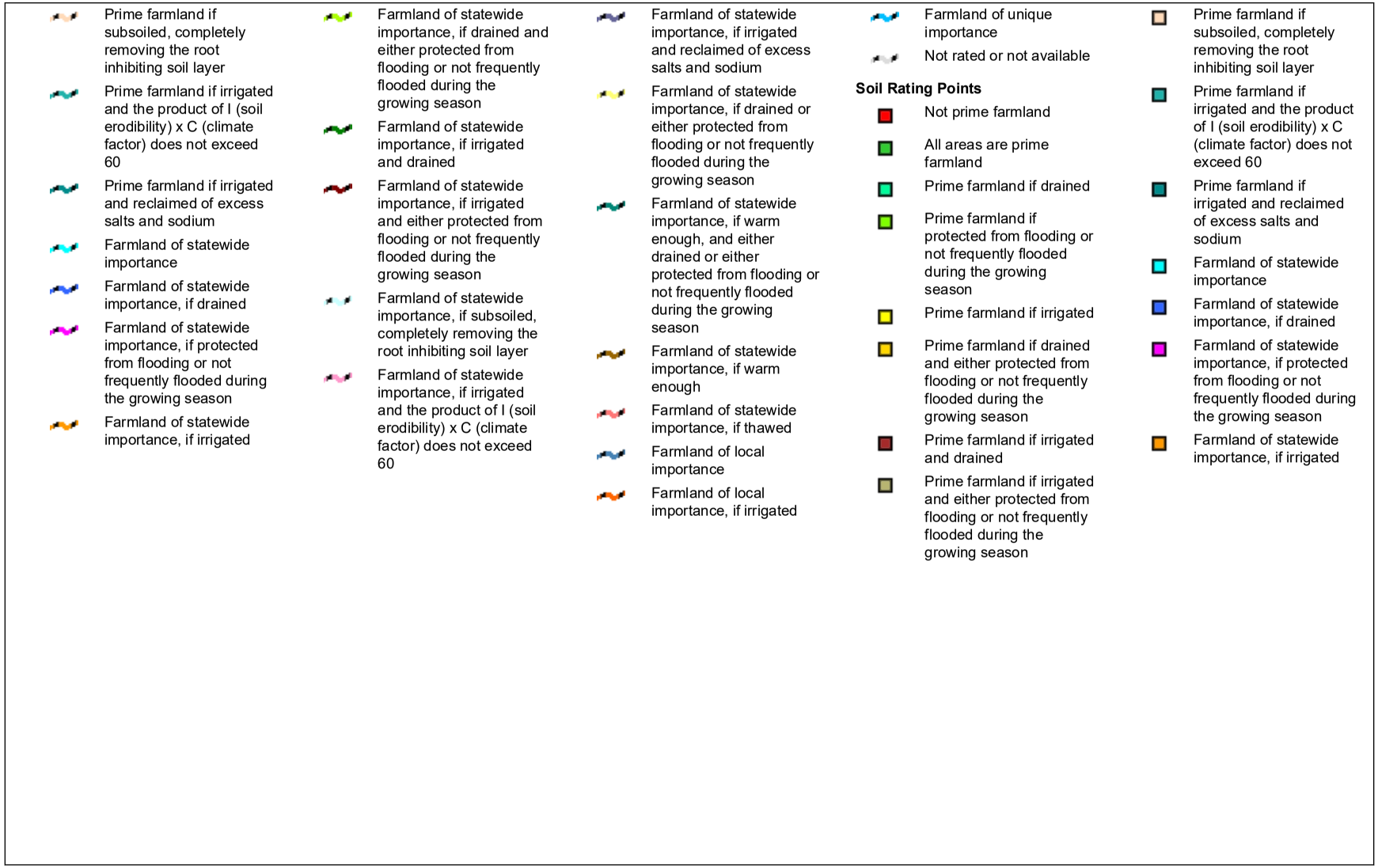
Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season


Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated
Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated and drained
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Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough
Farmland of statewide importance, if thawed
Farmland of local importance
Farmland of local importance, if irrigated
Farmland of unique importance
Not rated or not available
Soil Rating Points
Not prime farmland
All areas are prime farmland
Prime farmland if drained
Prime farmland if protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated
Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated and drained
Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

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Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 20, Aug 29, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 9, 2022—Oct 21, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ab	Abscota loamy sand	Not prime farmland	2.1	0.1%
Ba	Barry loam	Prime farmland if drained	44.4	1.8%
Bh	Berville loam	Prime farmland if drained	34.0	1.4%
BlA	Blount loam, Erie-Huron Lake Plain, 0 to 2 percent slopes	Prime farmland if drained	0.2	0.0%
BrB	Boyer loamy sand, 1 to 6 percent slopes	Farmland of local importance	38.0	1.6%
BrC	Boyer loamy sand, 6 to 12 percent slopes	Farmland of local importance	2.6	0.1%
BsB	Boyer sandy loam, 1 to 6 percent slopes	Farmland of local importance	30.5	1.2%
BtA	Brady loamy sand, 0 to 2 percent slopes	All areas are prime farmland	2.5	0.1%
Bw	Brookston loam	Prime farmland if drained	38.9	1.6%
CeB	Celina loam, 2 to 6 percent slopes	All areas are prime farmland	65.0	2.7%
CeB2	Celina loam, 2 to 6 percent slopes, moderately eroded	All areas are prime farmland	45.8	1.9%
Cf	Ceresco loam	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	20.7	0.8%
Cm	Cohoctah loam	Not prime farmland	69.6	2.9%
Co	Colwood loam	Prime farmland if drained	152.4	6.2%
CvA	Conover loam, 0 to 2 percent slopes	Prime farmland if drained	1.7	0.1%
CvB	Conover loam, 2 to 6 percent slopes	Prime farmland if drained	30.8	1.3%
DyA	Dryden sandy loam, 0 to 2 percent slopes	All areas are prime farmland	69.0	2.8%
DyB	Dryden sandy loam, 2 to 6 percent slopes	All areas are prime farmland	129.7	5.3%
FaA	Fabius-Wasepi sandy loams, 0 to 2 percent slopes	Farmland of local importance	24.9	1.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FaB	Fabius-Wasepi sandy loams, 2 to 6 percent slopes	Farmland of local importance	24.1	1.0%
FoA	Fox sandy loam, till plain, 0 to 2 percent slopes	All areas are prime farmland	36.5	1.5%
FoB	Fox sandy loam, till plain, 2 to 6 percent slopes	All areas are prime farmland	90.4	3.7%
FoC2	Fox sandy loam, Huron Lobe, 6 to 12 percent slopes, eroded	Farmland of local importance	31.3	1.3%
Gd	Gilford sandy loam, till plain, 0 to 2 percent slopes	Prime farmland if drained	13.7	0.6%
KbA	Kibbie loam, 0 to 2 percent slopes	Prime farmland if drained	19.7	0.8%
LaA	Lapeer sandy loam, 0 to 2 percent slopes	All areas are prime farmland	131.5	5.4%
LaB	Lapeer sandy loam, 2 to 6 percent slopes	All areas are prime farmland	382.0	15.7%
LaB2	Lapeer sandy loam, 2 to 6 percent slopes, moderately eroded	All areas are prime farmland	204.0	8.4%
LaC3	Lapeer sandy loam, 6 to 12 percent slopes, severely eroded	Farmland of local importance	19.6	0.8%
LaD2	Lapeer sandy loam, 12 to 18 percent slopes, moderately eroded	Farmland of local importance	2.8	0.1%
Lm	Linwood muck	Not prime farmland	48.3	2.0%
LoA	Locke sandy loam, 0 to 2 percent slopes	Prime farmland if drained	167.9	6.9%
LoB	Locke sandy loam, 2 to 6 percent slopes	Prime farmland if drained	98.2	4.0%
Lu	Lupton muck	Not prime farmland	0.5	0.0%
MaB	Macomb sandy loam, 2 to 6 percent slopes	Prime farmland if drained	26.9	1.1%
MhA	Matherton loam, 0 to 2 percent slopes	Prime farmland if drained	17.7	0.7%
MtB	Glynwood loam, 2 to 6 percent slopes	All areas are prime farmland	13.8	0.6%
MuD3	Morley clay loam, 12 to 18 percent slopes, severely eroded	Farmland of local importance	0.1	0.0%
Mw	Mussey-Gilford sandy loams	Farmland of local importance	23.4	1.0%
OsA	Oshtemo sandy loam, 0 to 2 percent slopes	All areas are prime farmland	65.9	2.7%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
OsB	Oshtemo sandy loam, 2 to 6 percent slopes	All areas are prime farmland	103.2	4.2%
OsC	Oshtemo sandy loam, 6 to 12 percent slopes	Farmland of local importance	4.4	0.2%
OwA	Owosso sandy loam, 0 to 2 percent slopes	All areas are prime farmland	10.2	0.4%
OwB	Owosso sandy loam, 2 to 6 percent slopes	All areas are prime farmland	31.3	1.3%
Se	Sebewa loam, disintegration moraine, 0 to 2 percent slopes	Prime farmland if drained	24.1	1.0%
Sn	Sloan loam	Prime farmland if drained	2.2	0.1%
TuB	Tuscola very fine sandy loam, 2 to 6 percent slopes	All areas are prime farmland	22.6	0.9%
WawabB	Wawasee loam, 2 to 6 percent slopes	All areas are prime farmland	10.9	0.4%
WawacB	Wawasee loam, 2 to 6 percent slopes, eroded	All areas are prime farmland	9.7	0.4%
Totals for Area of Interest			**2,439.9**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

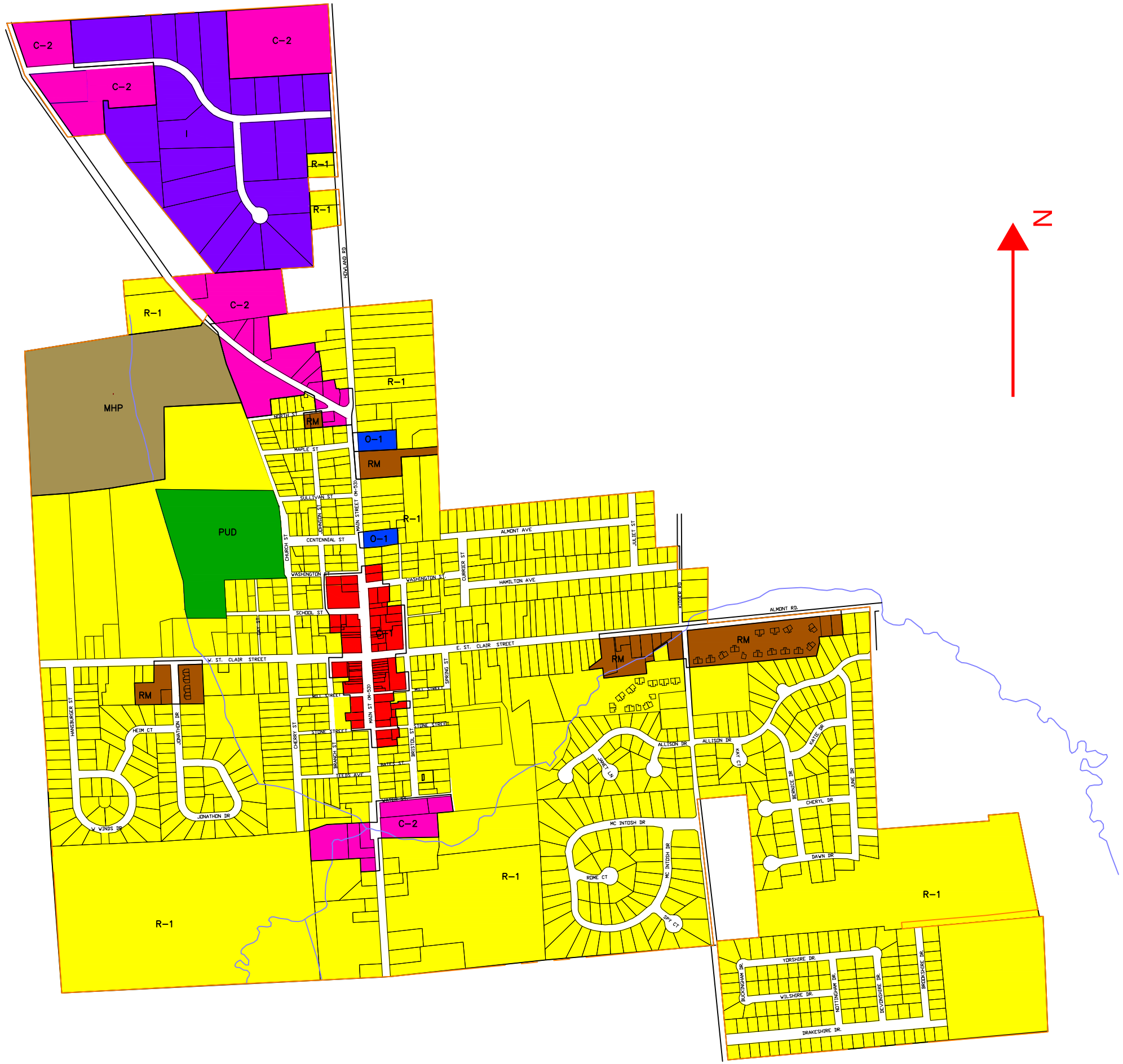
Tie-break Rule: Lower

Figure A10

Village of Almont Current Zoning Map

VILLAGE OF ALMONT

ZONING MAP



N

R-1	SINGLE FAMILY RESIDENTIAL
MPH	MOBILE HOME PARK
RM	MULTIPLE FAMILY RESIDENTIAL
C-1	CENTRAL BUSINESS
C-2	GENERAL BUSINESS
I	INDUSTRIAL
O-1	PROFESSIONAL OFFICE
P-1	PARKING DISTRICT
PUD	PLANNED UNIT DEVELOPMENT

ADOPTED: April 6, 2017

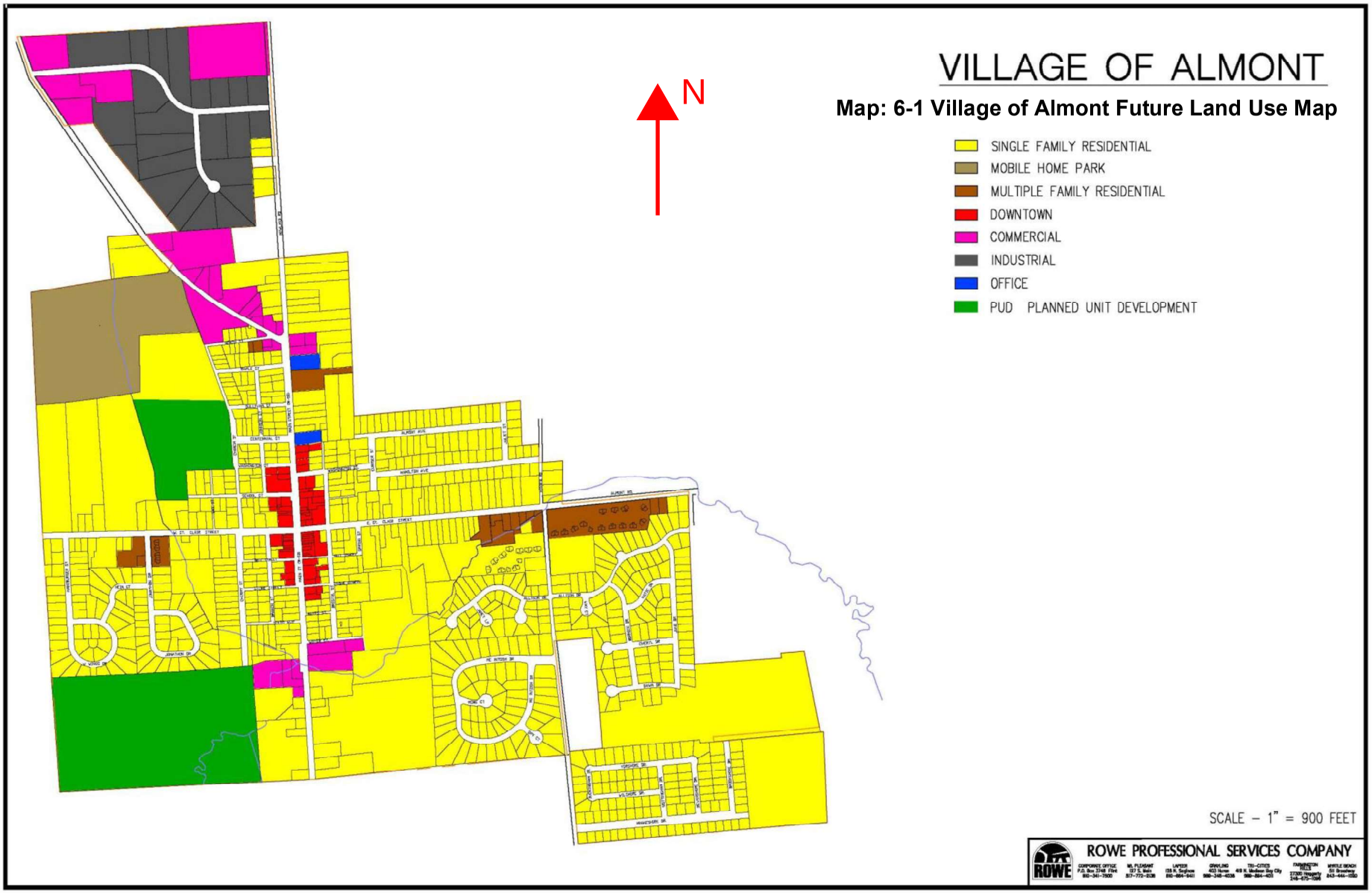
SCALE – 1" = 900 FEET

ROWE PROFESSIONAL SERVICES COMPANY

CORPORATE OFFICE P.O. Box 3748 Flint 810-341-7500 | Mt. PLEASANT 127 S. Main 517-772-2138 | LAPEER 128 N. Saginaw 810-664-9411 | GRAYLING 403 Huron 989-348-4036 | TRI-CITIES 419 N. Madison Bay City 989-894-4011 | FARMINGTON HILLS 27300 Hogarty 248-675-1096 | MYRTLE BEACH 511 Broadway 843-444-1020

Figure A11

Village of Almont Future Land Use Map


VILLAGE OF ALMONT
Map: 6-1 Village of Almont Future Land Use Map
N
SINGLE FAMILY RESIDENTIAL
MOBILE HOME PARK
MULTIPLE FAMILY RESIDENTIAL
DOWNTOWN
COMMERCIAL
INDUSTRIAL
OFFICE
PUD PLANNED UNIT DEVELOPMENT
SCALE – 1" = 900 FEET
ROWE PROFESSIONAL SERVICES COMPANY

Appendix B

NPDES Permit

PERMIT NO. MI0020931

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the federal Clean Water Act (federal Water Pollution Control Act, 33 U.S.C., Section 1251 *et seq*., as amended); 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 2019-06,

Village of Almont
817 North Main Street
Almont, MI 48003

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

401 Spring Street
Almont, MI 48003

designated as **Almont WWTP**

to the receiving waters named the North Branch Clinton 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 April 2, 2020.

This permit takes effect on April 1, 2021. 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 National Pollutant Discharge Elimination System (NPDES) Permit No. MI0020931 (expiring October 1, 2020).

This permit and the authorization to discharge shall expire at midnight on **October 1, 2025**. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application that contains such information, forms, and fees as are required by the Michigan Department of Environment, Great Lakes, and Energy (Department) by **April 4, 2025**.

Issued: February 26, 2021.

Original signed by Christine Alexander
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. Payment may be made electronically via the Department's MiWaters system. The MiWaters website is located at https://miwaters.deq.state.mi.us. Payment shall be submitted or postmarked by January 15 for notices mailed by December 1. Payment shall be submitted or postmarked no later than 45 days after receiving the notice for notices mailed after December 1.

Annual Permit Fee Classification: Municipal Minor, less than 1 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. The permittee shall submit the fee in response to the Department's annual notice. Payment may be made electronically via the Department's MiWaters system. The MiWaters website is located at https://miwaters.deq.state.mi.us. Payment shall be submitted or postmarked no later than January 31 of each year for notices mailed by December 15. Payment shall be submitted or postmarked no later than 45 days after receiving the notice for notices mailed after December 15.

CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Lansing District Office of the Water Resources Division. The Lansing District Office is located at 525 West Allegan Street, 1st Floor, South Tower, Lansing, MI 48933, Telephone: 517-284-6651, Fax: 517-241-3571.

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 Environment, Great Lakes, and Energy, 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 North Branch Clinton River at Latitude 42.91761, Longitude -83.04100. 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 ($CBOD_5$)										
June – October	16	39	(report)	lbs/day	4	---	10	mg/l	3x Weekly	24-Hr Composite
November	59	86	(report)	lbs/day	15	---	22	mg/l	3x Weekly	24-Hr Composite
December – April	63	94	(report)	lbs/day	16	---	24	mg/l	3x Weekly	24-Hr Composite
May	67	98	(report)	lbs/day	17	---	25	mg/l	3x Weekly	24-Hr Composite
Total Suspended Solids (TSS)										
June – October	78	120	(report)	lbs/day	20	30	(report)	mg/l	3x Weekly	24-Hr Composite
November – May	120	180	(report)	lbs/day	30	45	(report)	mg/l	3x Weekly	24-Hr Composite
Ammonia Nitrogen (as N)										
June – October	2.0	7.8	(report)	lbs/day	0.5	---	2.0	mg/l	3x Weekly	24-Hr Composite
November	15	17	(report)	lbs/day	3.9	---	4.3	mg/l	3x Weekly	24-Hr Composite
December – April	16	18	(report)	lbs/day	4.1	---	4.7	mg/l	3x Weekly	24-Hr Composite
May	16	19	(report)	lbs/day	4.0	---	4.9	mg/l	3x Weekly	24-Hr Composite
Total Phosphorus (as P)	3.9	---	(report)	lbs/day	1.0	---	(report)	mg/l	5x Weekly	24-Hr Composite
Fecal Coliform Bacteria	---	---	---	---	200	400	(report)	cts/100 ml	3x Weekly	Grab
					Minimum % Monthly		**Minimum % Daily**			
TSS Minimum % Removal										
November – May	---	---	---	---	85	---	(report)	%	Monthly	Calculation
					Minimum Daily		**Maximum Daily**			
pH	---	---	---	---	6.5	---	9.0	S.U.	5x Weekly	Grab
Dissolved Oxygen	---	---	---	---	7.0	---	---	mg/l	3x Weekly	Grab

PART I

Section A. Limitations and Monitoring Requirements

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 0.47 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 Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia Nitrogen (as N), Total Phosphorus (as P), Fecal Coliform Bacteria, pH, and Dissolved Oxygen shall be taken after disinfection. The Department may approve alternate sampling locations that are demonstrated by the permittee to be representative of the effluent.

c. Ultraviolet Disinfection
It is understood that ultraviolet light will be used to achieve compliance with the fecal coliform limitations. If disinfection other than ultraviolet light will be used, the permittee shall notify the Department in accordance with Part II.C.12. of this permit.

d. Percent Removal Requirements
Monthly percent removal shall be calculated based on the monthly average effluent TSS concentrations and the monthly average influent concentrations for approximately the same period. Daily percent removal shall be calculated based on the daily effluent TSS concentrations and the daily influent concentrations for the same day. Reporting of Daily percent removal is only required on days on which an influent sample is obtained.

PART I

Section A. Limitations and Monitoring Requirements

2. Quantification Levels and Analytical Methods for Selected Parameters

Maximum acceptable quantification levels (QLs) are specified for selected parameters in the table below. These QLs shall be considered the maximum acceptable unless a higher QL is appropriate because of sample matrix interference. Justification for higher QLs shall be submitted to the Department within 30 days of such determination. Where necessary to help ensure that the QLs specified can be achieved, analytical methods may also be specified in the table below. The sampling procedures, preservation and handling, and analytical protocol for all monitoring conducted in compliance with this permit, including monitoring conducted to meet the requirements of the application for permit reissuance, shall be in accordance with the methods specified in the table below, or in accordance with Part II.B.2. of this permit if no method is specified in the table below, unless an alternate method is approved by the Department. **Not all QLs are expressed in the same units in the table below**. The table is continued on the following page:

Parameter	QL	Units	Analytical Method
1,2-Diphenylhydrazine (as Azobenzene)	3.0	ug/l	
2,4,6-Trichlorophenol	5.0	ug/l	
2,4-Dinitrophenol	19	ug/l	
3,3'-Dichlorobenzidine	1.5	ug/l	EPA Method 605
4-Chloro-3-Methylphenol	7.0	ug/l	
4,4'-DDD	0.01	ug/l	EPA Method 608
4,4'-DDE	0.01	ug/l	EPA Method 608
4,4'-DDT	0.01	ug/l	EPA Method 608
Acrylonitrile	1.0	ug/l	
Aldrin	0.01	ug/l	EPA Method 608
Alpha-Endosulfan	0.01	ug/l	EPA Method 608
Alpha-Hexachlorocyclohexane	0.01	ug/l	EPA Method 608
Antimony, Total	1	ug/l	
Arsenic, Total	1	ug/l	
Barium, Total	5	ug/l	
Benzidine	0.1	ug/l	EPA Method 605
Beryllium, Total	1	ug/l	
Beta-Endosulfan	0.01	ug/l	EPA Method 608
Beta-Hexachlorocyclohexane	0.01	ug/l	EPA Method 608
Bis (2-Chloroethyl) Ether	1.0	ug/l	
Bis (2-Ethylhexyl) Phthalate	5.0	ug/l	
Boron, Total	20	ug/l	
Cadmium, Total	0.2	ug/l	
Chlordane	0.01	ug/l	EPA Method 608
Chloride	1.0	mg/l	
Chromium, Hexavalent	5	ug/l	
Chromium, Total	10	ug/l	
Copper, Total	1	ug/l	
Cyanide, Available	2	ug/l	EPA Method OIA 1677
Cyanide, Total	5	ug/l	
Delta-Hexachlorocyclohexane	0.01	ug/l	EPA Method 608

PART I

Section A. Limitations and Monitoring Requirements

Parameter	QL	Units	Analytical Method
Dieldrin	0.01	ug/l	EPA Method 608
Di-N-Butyl Phthalate	9.0	ug/l	
Endosulfan Sulfate	0.01	ug/l	EPA Method 608
Endrin	0.01	ug/l	EPA Method 608
Endrin Aldehyde	0.01	ug/l	EPA Method 608
Fluoranthene	1.0	ug/l	
Heptachlor	0.01	ug/l	EPA Method 608
Heptachlor Epoxide	0.01	ug/l	EPA Method 608
Hexachlorobenzene	0.01	ug/l	EPA Method 612
Hexachlorobutadiene	0.01	ug/l	EPA Method 612
Hexachlorocyclopentadiene	0.01	ug/l	EPA Method 612
Hexachloroethane	5.0	ug/l	
Lead, Total	1	ug/l	
Lindane	0.01	ug/l	EPA Method 608
Lithium, Total	10	ug/l	
Mercury, Total	0.5	ng/l	EPA Method 1631E
Nickel, Total	5	ug/l	
PCB-1016	0.1	ug/l	EPA Method 608
PCB-1221	0.1	ug/l	EPA Method 608
PCB-1232	0.1	ug/l	EPA Method 608
PCB-1242	0.1	ug/l	EPA Method 608
PCB-1248	0.1	ug/l	EPA Method 608
PCB-1254	0.1	ug/l	EPA Method 608
PCB-1260	0.1	ug/l	EPA Method 608
Pentachlorophenol	1.8	ug/l	
Perfluorooctane sulfonate (PFOS)	2.0	ng/l	ASTM D7979 or an isotope dilution method (sometimes referred to as Method 537 modified)
Perfluorooctanoic acid (PFOA)	0.002	ug/l	ASTM D7979 or an isotope dilution method (sometimes referred to as Method 537 modified)
Phenanthrene	1.0	ug/l	
Selenium, Total	1.0	ug/l	
Silver, Total	0.5	ug/l	
Strontium, Total	1000	ug/l	
Sulfate	2.0	mg/l	
Sulfides, Dissolved	20	ug/l	
Thallium, Total	1	ug/l	
Toxaphene	0.1	ug/l	EPA Method 608
Vinyl Chloride	1.0	ug/l	
Zinc, Total	10	ug/l	

PART I

Section A. Limitations and Monitoring Requirements

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

In accordance with Section 324.3112a of the NREPA, if untreated or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the permittee shall immediately, but not more than 24 hours after the discharge begins, notify 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 notify the Department via its MiWaters system on the form entitled "Report of Discharge (CSO\SSO\RTB)." The MiWaters website is located at https://miwaters.deq.state.mi.us. At the conclusion of the discharge, the permittee shall make all such notifications specified in, and in accordance with, Section 324.3112a of the NREPA, and shall notify the Department via its MiWaters system on the form entitled "Report of Discharge (CSO\SSO\RTB)."

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 untreated or partially treated sewage, and if those municipalities wish to be notified in the same manner as specified above, the permittee shall provide such notification.

Additionally, in accordance with Section 324.3112a of the NREPA, each time a discharge of untreated 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 results of this testing shall be submitted to the Department via MiWaters as part of the notification specified above, or, if the results are not yet available, submitted as soon as they become available. This testing is not required if it has been waived by the local health department, or if the discharge(s) did not affect surface waters. 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.

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.

PART I

Section A. Limitations and Monitoring Requirements

4. 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.

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 releases the permittee from properly submitting reports and forms as required by law.

5. 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, operating reports showing the effectiveness of the treatment facility operation and the quantity and quality of liquid wastes discharged into waters of the state.

Within 30 days of the effective date of this permit, the permittee shall submit to the Department a revised treatment facility monitoring program to address monitoring requirement changes reflected in this permit, or submit justification explaining why monitoring requirement changes reflected in this permit do not necessitate revisions to the treatment facility monitoring program. The permittee shall implement the revised treatment facility monitoring program upon approval from the Department. Applicable forms and guidance are available on the Department's web site at https://www.michigan.gov/egle/0,9429,7-135-3313_71618_44117---,00.html. The permittee may use alternate forms if they are consistent with the approved treatment facility monitoring program. Unless the Department provides written notification to the permittee that monthly submittal of operating reports is required, operating reports that result from implementation of the approved treatment facility monitoring program shall be maintained on site for a minimum of three (3) years and shall be made available to the Department for review upon request.

6. Continuous Monitoring

If continuous monitoring equipment is used and becomes temporarily inoperable, the permittee shall manually obtain a minimum of three (3) equally spaced grab samples/readings within each 24-hour period for the affected parameter(s). On such days, in the comment field on the Daily tab of the DMR, the permittee shall indicate "continuous monitoring system inoperable," the date on which the system is expected to become operable again, and the number of samples/readings obtained during each 24-hour period.

PART I

Section B. Storm Water Pollution Prevention

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

PART I

Section C. Industrial Waste Pretreatment Program

1. Industrial Waste 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 Water Pollution Control Act. The permittee is required to comply with Section 307 of the Federal Water Pollution Control 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 waste streams 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 Water Pollution Control 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 September 20, 2001, and approved modifications thereto, and 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/egle/ and near the top of the screen click on Water, then towards the bottom right of the screen click on Permits, Wastewater, 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 Annual Report Form for Reporting Biosolids, 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 (5) 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, Soil and Sedimentation Control, 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, Land Application of Biosolids, promulgated under Part 31 of the NREPA. 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.

Continuous monitoring refers to sampling/readings that occur at regular and consistent intervals throughout a 24-hour period and at a frequency sufficient to capture data that are representative of the discharge. The maximum acceptable interval between samples/readings shall be one (1) hour.

PART II

Section A. Definitions

Daily concentration
FOR PARAMETERS OTHER THAN pH, DISSOLVED OXYGEN, TEMPERATURE, AND CONDUCTIVITY – Daily concentration is the sum of the concentrations of the individual samples of a parameter taken within a calendar day divided by the number of samples taken within that calendar day. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations. For guidance and examples showing how to perform calculations using results below quantification levels, see the document entitled "Reporting Results Below Quantification," available at https://www.michigan.gov/documents/deq/wrd-npdes-results-quantification_620791_7.pdf.

FOR pH, DISSOLVED OXYGEN, TEMPERATURE, AND CONDUCTIVITY – The daily concentration used to determine compliance with maximum daily pH, temperature, and conductivity limitations is the highest pH, temperature, and conductivity readings obtained within a calendar day. The daily concentration used to determine compliance with minimum daily pH and dissolved oxygen limitations is the lowest pH and dissolved oxygen readings obtained within a calendar day.

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 Environment, Great Lakes, and Energy.

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 composite sample – See definition of **24-hour composite sample**.

General permit means an NPDES permit 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 a 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.

MBTU/hr means million British Thermal Units per hour.

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.

PART II

Section A. Definitions

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 POTW as defined in the Code of Federal Regulations at 40 CFR 122.2.
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 Clean Water 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 Clean Water 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.

Nonstructural controls are practices or procedures implemented by employees at a facility to manage storm water or to prevent contamination of storm water.

NPDES means National Pollutant Discharge Elimination System.

Outfall is the location at which a point source discharge first enters a surface water 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 control activities under Part 615, Supervisor of Wells; Part 631, Reclamation of Mining Lands; or Part 632, Nonferrous Metallic Mineral Mining, of the NREPA, 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 NPDES 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.

PART II

Section A. Definitions

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, Spillage of Oil and Polluting Materials, promulgated under Part 31 of the NREPA (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

POTW is a publicly owned treatment work.

Predevelopment is the last land use prior to the planned new development or redevelopment.

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.

PART II

Section A. Definitions

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 waters or groundwaters of the 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)).

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 the 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, Hazardous Waste Management, 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 storm water discharges for which the Department has determined that additional monitoring is needed from: 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.

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.

Structural controls are physical features or structures used at a facility to manage or treat storm water.

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

PART II

Section A. Definitions

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 Clean Water 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. If the calendar week begins in one month and ends in the following month, the analytical result, reading, value, or observation shall be reported in the month in which monitoring was conducted.

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.

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.

PART II

Section A. Definitions

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 and in which the volume of each portion is proportional to the discharge flow rate at the time that portion is taken. A time-proportioned composite sample may be used upon approval from 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 Clean Water 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**. For lists of approved test methods, go to https://www.epa.gov/cwa-methods. 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 Manager of the Permits Section, Water Resources Division, Michigan Department of Environment, Great Lakes, and Energy, 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 Assurance/Quality Control 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, 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, 1987 PA 96, as amended, 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 Clean Water 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** call 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, call: 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 Clean Water Act and the NREPA.

The Clean Water 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, on forms provided by the Department.

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 Clean Water 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 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 Clean Water 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 Clean Water 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 Clean Water 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

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 Clean Water 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 Clean Water 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 Environment, Great Lakes, and Energy permits, or approvals from other units of government as may be required by law.

Appendix C

Agency/Environmental Review Correspondence

Figure C1

Overburdened Worksheet – 20 year

Overburdened and Significantly Overburdened Calculation Worksheet

2. Median Annual Household Income (blended if necessary)	$70,022
3. Taxable Value Per Capita (blended if necessary)	$26,966
4. Amount of anicipated debt - FY24 SRF loan only	$2,751,750
Terms	20
Rate	2.50%
New Annual debt from SRF loan	$176,517
5. Annual Payments on existing debt	
6. Total OM&R	
7. Number of REUs	1479.6
Total Annual Cost	$176,517
Annual User Cost	$119
MAHI Threshold $ amount	**Do Not Qualify**

			Result
125% of Federal Poverty MAHI	$37,500	**Significantly Overburdened**	**NO**
Lowest 10% TVPC	$15,170	**Significantly Overburdened**	**NO**
Lowest 20% TVPC	$22,920	**Overburdened without calculation needed**	**NO**
Michigan MAHI	$63,498	**Overburdened with calculation**	**NO**

Figure C2

Overburdened Worksheet – 30 year

Overburdened and Significantly Overburdened Calculation Worksheet

2. Median Annual Household Income (blended if necessary)	$70,022
3. Taxable Value Per Capita (blended if necessary)	$26,966
4. Amount of anicipated debt - FY24 SRF loan only	$2,751,750
Terms	30
Rate	2.50%
New Annual debt from SRF loan	$131,472
5. Annual Payments on existing debt	
6. Total OM&R	
7. Number of REUs	1479.6
Total Annual Cost	$131,472
Annual User Cost	$89
MAHI Threshold $ amount	**Do Not Qualify**

			Result
125% of Federal Poverty MAHI	$37,500	**Significantly Overburdened**	**NO**
Lowest 10% TVPC	$15,170	**Significantly Overburdened**	**NO**
Lowest 20% TVPC	$22,920	**Overburdened without calculation needed**	**NO**
Michigan MAHI	$63,498	**Overburdened with calculation**	**NO**

Figure C3

Opinion of Probable Costs

City of Almont
CWSRF Sewer System Improvements
10/25/2022
Engineer's Cost Opinion

Item No.	Description	Project Amount
1	Rebuild Influent Pumps	$ 90,000
2	Replace Tertiary System	$ 975,000
3	SCADA (Extend Upgrade)	$ 112,500
4	Return-Activated Sludge Pump Rebuilds	$ 54,000
5	Replace UV Control Centers	$ 105,000
6	June Drive Force Main	$ 365,250
7	Johnathon Lift Station Pump	$ 150,000
8	Farnum Drain Main Sewer Interceptor Lining - St. Clair - M-53 - Bristol	$ 900,000
	Total Project Cost	**$ 2,751,750**

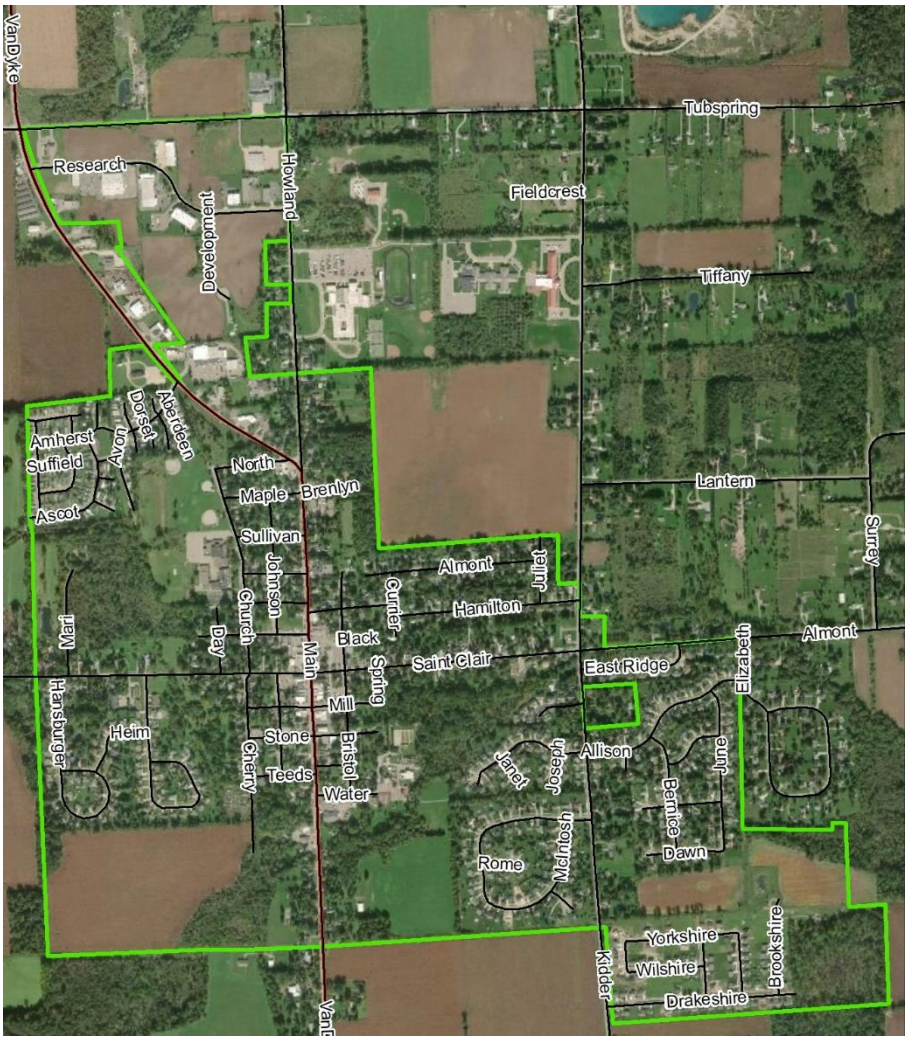
Opinion of Cost assumes that construction will occur in FY 2025
and accounts for inflation and CWSRF Buy America requirements

Appendix D

Capital Improvement Plan

Village of Almont

Capital Improvement Plan 2020-2026



March 17, 2020

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Prepared By:

ROWE PROFESSIONAL SERVICES COMPANY

INTRODUCTION

Pursuant to the Michigan Planning Enabling Act PA 33 of 2008, the Planning Commission of a municipality shall make and adopt a six-year Capital Improvement Program (CIP) to carry out its long-range planning objectives. This document represents the Village of Almont Planning Commission's CIP for the village's fiscal years 2020 through 2026.

Commencing with this program year, the Village Council and staff will procedurally review and update the six-year CIP annually between the months of January and April in preparation for adoption of the budget for the fiscal year beginning July 1st. This is timed to correlate directly with the annual Capital Improvement Fund Budget process.

Briefly stated, the objectives of this CIP Program are:

- To develop and maintain a long-range (six-year) program in which physical projects are planned, prioritized, and implemented in an orderly manner;
- To coordinate the capital related projects of the various Village Departments, Boards, and Commissions to ensure an appropriate distribution of capital improvement funds with regards to the needs of the village and the fiscal ability of the village to undertake the requested projects;
- To assist the Village President and Village Council in the evaluation of project requests and funding sources regarding short- and long-range plans; and
- To coordinate the demands and requests for capital improvement funds with the planning needs of the village so that an appropriately prioritized system of funding can be programmed over increments of six years.

I. EXPLANATION OF CAPITAL IMPROVEMENT TERMS

There are three terms that are key to understanding the Capital Improvement Plan.

A. Capital Improvements

Capital improvements are projects that result in the acquisition, addition, updating, or development of physical facilities. A capital improvement may also include contractual or bonded indebtedness payments related to fixed assets, or any major expenditure for physical development, which generally falls into one of the following categories:

1. Any construction of a new facility (i.e., public building, water/sanitary sewer mains, storm sewer, major or local roadways, recreational facilities), an addition to, upgrade, or replacement, provided that the cost is $10,000 or more.
2. Any nonrecurring rehabilitation of all or part of a building, grounds, facility, or equipment, provided the cost is $10,000 or more.
3. Any purchase or replacement of major equipment to support community programs, provided that the cost is $10,000 or more.

4. Any planning, feasibility, engineering, or design study related to an individual capital improvements project or to a program that implements through individual capital improvement projects, provided that the cost is $10,000 or more.
5. Any acquisition of land for public purpose that is not part of an individual capital improvement project or a program that is implemented through individual capital improvements projects, provided that the cost is $10,000 or more.
6. Contractual or bonded indebtedness payments related to fixed assets Capital Improvement Programming.

Capital Improvement Programming is the preparation and updating of a recommended schedule of public works and related equipment to be built or purchased during the next six years. To be effective, the village's CIP will cover the village's entire range of public facility and service requirements. In the village's CIP, all future projects are listed in order of construction priority together with cost estimates and the anticipated means of financing for each project.

A six-year Capital Improvement Programming period is generally considered to be most suitable. A two- or three-year period is too short for effective programming because planning and financing of major projects usually take longer. Conversely, a period of seven or more years may project the program too far into the future to be of practical value. A capital improvement budget is based on a five-year timeline.

B. Capital Improvement Budget

While the CIP is a proposed spending schedule for six years, the capital budget is legal authorization to spend, during the coming fiscal year, funds from village sources and from federal and state grants.

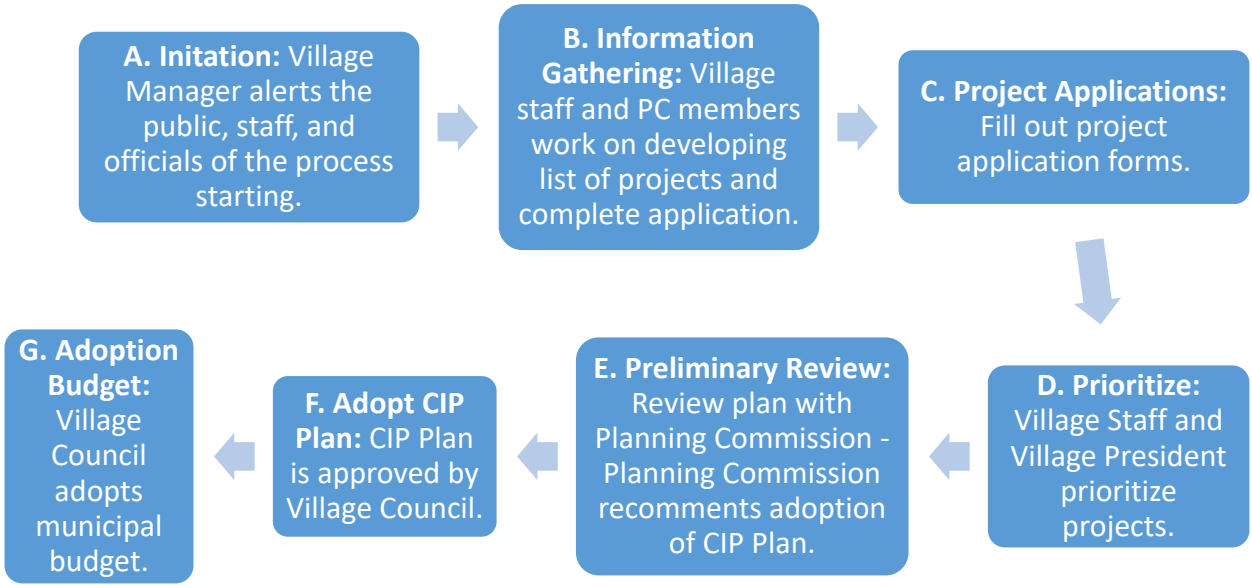
The village capital budget is distinct from the operating budget. The operating budget authorizes the expenditures, on a one-year basis, of funds for employee salaries, fringe benefits, and the purchase of services, supplies, and the like. It also includes the payment of principal and interest on the bonds issued to support past capital budget projects. Since effective village services depend on the timely combination of manpower, supplies, and capital facilities, serious effort is devoted in the budgetary process to coordinate the capital and operating budgets.

C. Appropriation

Appropriation is money appropriated by the Village Council for capital improvement projects to be implemented during the budget year. It includes amendments made during the fiscal year to the originally-approved capital budget appropriations.

II. PROGRAM DEVELOPMENT, ADOPTION, AND AMENDMENT PROCEDURES

The steps on the development of the initial CIP and the subsequent yearly updates involve the following steps:



A. Initiation

The Village Manager submits a memo or other form of communication to all village staff, Planning Commission, and Village Council initiating the CIP process and establishing deadlines for submission of information and review of drafts.

B. Information Gathering

Village staff and the Planning Commission are requested to review documents prepared for the village related to potential capital improvement projects including grant applications, engineering studies, Joint Parks and Recreation Plans, the DDA Development Plan, and the Village Master Plan's implementation recommendations. Each potential project will be outlined in a Project Summary and Description sheet. In addition, information will be provided regarding potential funding sources for each of the projects. In accordance with the public engagement strategy for the Village of Almont, the general public is welcomed to provide feedback at the Village Council, Planning Commission meeting, or on the village's website for general comments.

C. Project Application

After the information gathering is completed, designated people from each corresponding project shall complete the project summary form. The designated department head staff will provide a previously mentioned material and review the projects with the Project Manager.

D. Prioritization

After gathering the Project Summary and Description sheets, the projects will be prioritized by a work group composed of: Village Manager, Village Clerk, DPW Supervisor, two members of the Planning Commission, and others identified by the Village Manager. The projects will be prioritized over the following six years using the following criteria:

Tier One:

- Department Priority
- Project Type
- Address Public Health, Safety, and Welfare
- Conforms to an Adopted Program, Plan, or Policy
- Have Funding for Cost of Project

Tier Two:

- Project Coordination
- Village Overall Priority

The Village Council shall participate in a prioritization windshield survey. The project applications sheets and Tier One and Two table shall be completed by staff. The Village Manager shall review the list of projects and their prioritization. The Village Council will then discuss changes to the priority ranking if needed.

E. Review of Preliminary CIP

The preliminary CIP shall be submitted to the Planning Commission for review and comment. The Planning Commission shall hold a public hearing to provide the public an opportunity to comment on it. The Planning Commission will either recommend approval of the CIP as presented or with changes. If the Planning Commission approves with changes, it will identify the basis for its recommended changes.

F. Approval of the CIP

Following Planning Commission review, the CIP will be submitted to the Village Council for its review and approval. The Council may revise the Plan as recommended by the Planning Commission without sending it back to the Planning Commission.

G. Budget Adoption

Following the adoption of the CIP, the Village Council shall work on adopting the budget. Though preliminary discussion may take place before the CIP is adopted, the village will strive to follow the projects indicated to be funded for that budget year.

Once the CIP is adopted, Village staff will be directed to include the first year projects into the next fiscal year proposed budget, if funding is available. Additionally, the decision to acquire equipment or construct new capital projects should include the affordability of incremental operating costs associated with the new capital. Therefore, future operating costs need to be integrated into the operating budget.

III. SUMMARY OF FUNDING SOURCES

Table 1 summaries the funding sources for the various projects based on category over the course of the CIP Plan. These numbers are the anticipated funding balances after other main expenses have been subtracted from the revenue. This is to help determine the amount of money left over to allocate towards the various capital improvement projects.

It is anticipated that the major street funding will continue to decrease as federal and state funding have continued to decrease. Otherwise, it is anticipated for all other revenue streams to remain primarily the same.

Table 1: Summary of Funding Sources FY 2020-2026

Funding Source	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	Total
General Fund	$153,622	$153,622	$153,622	$153,622	$153,622	$153,622	$1,075,354
Major Street Fund	$314,130	$314,130	$314,130	$314,130	$314,130	$314,130	$2,198,910
Local Street Fund	$58,975	$58,975	$58,975	$58,975	$58,975	$58,975	$412,825
Parks & Recreation Fund	$5,130	$5,130	$5,130	$5,130	$5,130	$5,130	$35,910
Sewer Fund	$209,860	$209,860	$209,860	$209,860	$209,860	$209,860	$1,469,020
Water Fund	$93,360	$93,360	$93,360	$93,360	$93,360	$93,360	$653,520
Equipment Fund	$132,520	$132,520	$132,520	$132,520	$132,520	$132,520	$927,640
Total	$967,597	$967,597	$967,597	$967,597	$967,597	$967,597	

IV. SUMMARY OF FUNDING EXPENDITURES

Table 2 identifies the various expenditures or cost of the various projects over the course of the CIP Plan.

Table 2: Summary of Funding Expenditures FY 2020-2026

#	Project	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	Total
General Fund								
1	Almont Parks Tennis Court			$25,000				$25,000
2	DPW Building/Garage				$450,000			$450,000
3	Municipal Building Parking Lot Reconfiguration					$140,000		$140,000
	Total	-	-	**$25,000**	**$450,000**	**$140,000**	-	
Sewer								
1	Rebuild Influent Pumps				$60,000			$60,000
2	Replace Tertiary System					$650,000		$650,000
3	SCADA (Extend Upgrade)	$75,000						$75,000
4	Return-Activated Sludge Pump Rebuilds		$36,000					$36,000
5	Replace UV Control Centers	$70,000						$70,000
6	June Drive Force Main		$243,500					$243,500
7	Clean and TV a Portion Annually	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$60,000
8	Johnathon Lift Station Pump		$100,000					$100,000
9	Farnum Drain Main Sewer Interceptor			$600,000				$600,000
10	Storm Drainage System evaluation	$50,000			$50,000	$50,000	$50,000	$200,000
11	Almont/Hamilton Water/Sewer Project (Bond) 15 yr	$37,500	$37,500	$37,500	$37,500	$37,500	$37,500	$225,000
	Total	**$242,500**	**$427,000**	**$647,500**	**$157,500**	**$747,500**	**$97,500**	

Water

#	Project	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	Total
1	New Backup Well-location						$450,000	$450,000
2	Water Tower Rehab	$61,420	$61,420	$61,420	$61,420	$61,420	$26,730	$333,830
3	Almont/Hamilton Water/Sewer Project (Bond) 15 yr	$37,500	$37,500	$37,500	$37,500	$37,500	$37,500	$225,000
4	AMP Main Street Water Main Replacement				$182,403			$182,403
5	AMP Loop Dead Ends - Spring & Water Streets Replacement					$182,403		$182,403
6	AMP Centennial Street Replacement						$91,202	$91,202
7	AMP Sullivan Street Replacement						$136,802	$136,802
8	AMP Maple Street Replacement						$136,802	$136,802
9	Water Service Replacement Main/Kidder			$81,454				$81,454
10	Double Check Valve Backflow - Kingsbrook						$50,000	$50,000
11	E. St. Clair Street - Water Main		$501,608					$501,608
12	Johnson Street - Water Main			$273,605				$273,605
13	N. Main Street	$40,000						$40,000
14	Johnson Street		$40,000					$40,000
15	Branch Street			$40,000				$40,000
16	E. St. Clair Street				$40,000			$40,000
17	AMP - Branch Street				$182,403			$182,403
18	Curb Stop Replacement DDA	$19,289						$19,289
	Total	**$158,209**	**$640,528**	**$493,979**	**$503,726**	**$281,323**	**$929,036**	

Major Streets

	Total	-	-	-	-	-	-	

Local Streets								
#	Project	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	Total
1	Sidewalk Installations	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$36,000
2	June Drive 2" Overlay				$60,000			$60,000
3	Bernice Drive 2" Overlay					$45,000		$45,000
4	Jonathon Drive 2" overlay					$80,000		$80,000
5	McIntosh Asphalt Application	$50,000						$50,000
	Total	**$56,000**	**$6,000**	**$6,000**	**$66,000**	**$131,000**	**$6,000**	
Equipment								
1	New Pickup Truck		$28,000					$28,000
2	Leaf Machine Replacement	$10,000	$58,000	$12,000	$20,000			$100,000
3	Patrol Vehicle	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$180,000
4	Police Station Guard Rail	$10,000						$10,000
5	Police In Car Cameras	$15,000						$15,000
6	Police Car Port/Garage Rehab			$75,000				$75,000
7	One Ton Utility Truck	$65,000						$65,000
	Total	**$130,000**	**$116,000**	**$117,000**	**$50,000**	**$30,000**	**$30,000**	
Alternative Funding Sources								
1	**MDNR Grant**							
	Almont Parks Tennis Court			$50,000				$50,000
2	**Almont Township**							
	Almont Parks Tennis Court			$25,000				$25,000
3	**MDOT Category B**							
	School Street Water Main		$151,000					$151,000
4	**SCRAP Tire (50%)**							
	Sidewalk Installations	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$36,000
	June Drive 2" Overlay				$60,000			$60,000
	Bernice Drive 2" Overlay					$45,000		$45,000
	Jonathon Drive 2" overlay					$80,000		$80,000
	McIntosh Asphalt Application	$50,000						$50,000
5	**Act 51**							
	Cherry Street Mill and overlay	$65,000						$65,000
	Johnson Street Reconstruction	260,00						$260,00
	Total	**$121,000**	**$157,000**	**$151,000**	**$66,000**	**$131,000**	**$6,000**	

V. SUMMARY TABLE OF PROJECTS

Table 3: Summary Table of Projects			EVALUATION CRITERIA						
			First Phase					Second Phase	
PROJECT	ANTICIPATED COST	POTENTIAL FUNDING SOURCE	Dept Priority	Type of Project	Address Threat to Public Health…	Conformity to Adopted Program, …	Grant/ Adequate Fund	Project Coordination	Preliminary Overall Priority
PARKS AND RECREATION									
Almont Parks Tennis Court	$25,000	General Fund	Medium	Replace/ Rehabilitate/ Upgrade	Yes	Yes	Yes	No	Medium
WASTE WATER TREATMENT PLANT IMPROVEMENTS									
Rebuild Influent Pumps	$60,000	Sewer	High	Rehabilitate	Yes	Yes	Yes	No	Medium
Replace Tertiary System	$650,000	Sewer	Medium	Replace	Yes	No	No	No	Low
SCADA (Extend Upgrade)	$75,000	Sewer	Medium	Upgrade	Yes	No	Yes	No	High
Return-Activated Sludge Pump Rebuilds	$36,000	Sewer	Medium	Rehabilitate	Yes	Yes	??	No	High
Replace UV Control Centers	$70,000	Sewer	High	Upgrade	Yes	Yes	Yes	No	High
WATER SYSTEM IMPROVEMENTS									
New Backup Well-location TBD	$450,000	Water	High	Replace	Yes	Yes	??	No	Low
Water Tower Rehab	$300,000	Water	Medium	Rehabilitate	No	No	Yes	No	High
Almont/Hamilton Water/Sewer Project (Bond) 15 yr	$1,900,000	Water/Sewer	High	Replace	No	Yes	Yes	Yes	High
AMP Main Street Water Main Replacement	$182,403	Water	High	Replace	Yes	Yes	??	No	Medium
AMP Loop Dead Ends - Spring & Water Streets Replacement	$182,403	Water	High	Replace	Yes	Yes	??	No	Low
AMP Centennial Street Replacement	$91,202	Water	High	Replace	Yes	Yes	??	No	Low
AMP Sullivan Street Replacement	$136,802	Water	High	Replace	Yes	Yes	??	No	Low
AMP Maple Street Replacement	$136,802	Water	High	Replace	Yes	Yes	??	No	Low
Water Service Replacement Main/Kidder	$81,454	Water	High	Replace	No	No	??	No	Medium

PROJECT	ANTICIPATED COST	POTENTIAL FUNDING SOURCE	Dept Priority	Type of Project	Address Threat to Public Health…	Conformity to Adopted Program, …	Grant/ Adequate Fund	Project Coordination	Preliminary Overall Priority
WATER SYSTEM IMPROVEMENTS cont.									
Double Check Valve Backflow - Kingsbrook	$50,000	Water	Low	New	No	No	??	No	Low
E. St. Clair Street - Water Main	$501,608	Water	High	Replace	Yes	Yes	??	No	High
School Street Water Main	$302,000	Water	High	Replace	Yes	Yes	Yes	Yes	High
Johnson Street - Water Main	$105,000	Water	High	Replace	Yes	Yes	??	No	High
AMP - Branch Street	$182,403	Water	High	Replace	Yes	Yes	??	No	Medium
Curb Stop Replacement DDA	$19,289	Water	High	Rehabilitate	Yes	Yes	??	No	High
LEAD AND COPPER RULE									
N. Main Street	$40,000	Water	High	Replace	Yes	Yes	Yes	No	High
Johnson Street	$40,000	Water	High	Replace	Yes	Yes	Yes	No	High
Branch Street	$40,000	Water	High	Replace	Yes	Yes	Yes	No	Medium
E. St. Clair Street	$40,000	Water	High	Replace	Yes	Yes	Yes	No	Medium
Street Projects									
Sidewalk Installations	$6,000 per yr	Local Streets	Medium	New/Replace	Yes	Yes	Yes	No	High
June Drive 2" Overlay	$60,000	Local Streets	High	Rehabilitate	No	No	No	No	Medium
Bernice Drive 2" Overlay	$45,000	Local Streets	High	Rehabilitate	No	No	No	No	Low
Jonathon Drive 2" Overlay	$80,000	Local Streets	High	Rehabilitate	No	No	No	No	Low
McIntosh Asphalt Application	$50,000	Local Streets	Medium	Rehabilitate	No	No	No	No	Medium
Cherry Street Mill and overlay	$65,000	Act 51	High	Rehabilitate	No	No	Yes	No	High
Johnson Street Reconstruction	$260,000	Act 51	High	Rehabilitate	No	No	Yes	No	High
SANITARY SEWER SYSTEM IMPROVEMENTS									
June Drive Force Main	$243,500	Sewer	Medium	Upgrade	Yes	Yes	Yes	No	High
Clean and TV a Portion Annually	$10,000	Sewer	Medium	Rehabilitate	Yes	No	Yes	No	High
Jonathon Lift Station Pumps	$100,000	Sewer	Low	New/Replace	Yes	No	??	No	High
Farnum Drain Main Sewer Interceptor Lining -St Clair-M 53-Bristol	$600,000	Sewer	Medium	New	No	No	??	No	Medium
STORM SEWER SYSTEM IMPROVEMENTS									
Storm Drainage System Evaluation	$200,000	Streets	Medium	New	No	No	Yes	No	High

PROJECT	ANTICIPATED COST	POTENTIAL FUNDING SOURCE	Dept Priority	Type of Project	Address Threat to Public Health…	Conformity to Adopted Program, …	Grant/ Adequate Fund	Project Coordination	Preliminary Overall Priority
OTHER									
New Pickup Truck (Waste Water)	$28,000	Equipment	High	New	No	No	Yes	No	High
Leaf Machine Replacement	$100,000	Equipment	High	Replace	No	No	Yes	No	High
DPW Building/Garage	$450,000	General Fund	High	Upgrade	No	No	Yes	No	Medium
Municipal Building Parking Lot Reconfiguration	$280,000	General Fund/ Shared cost w Twp	Medium	New/ Replace/ Rehabilitate/ Upgrade	No	No	Yes	No	Low
Patrol Vehicle	$30,000 Each	Equipment	High	Replace	Yes	No	Yes	Yes	High
Police Station Guard Rail	$10,000	Equipment	High	New	Yes	No	Yes	No	High
Police In Car Cameras	$15,000	Equipment	High	New	Yes	No	Yes	Yes	High
Police Car Port / Garage Rehab	$75,000	Equipment	Medium	New/Rehabilitate	No	No	Yes	No	Medium
One Ton Utility Truck	$65,000	Equipment	Medium	New	No	No	Yes	No	High

VI. PROJECT EVALUATION

Project Name: Almont Parks Tennis Court						**Dept:** Parks Board
Project Fund: General Fund		**Project Location:** Almont Park				**Dept Priority:** Medium
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2022
Type of Project: Replace/Rehabilitate/Upgrade			**Project Coordination:** Almont Parks & Recreation			
Preliminary Overall Priority: Medium						
Project Description: Proposed resurfacing or alternate use for the tennis court. Project will seek grant funding.						
Project Justification: Rehabilitate or repurpose tennis court property as determined by Almont Parks and Recreation Board.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Park & Rec Fund			$25,000			
Almont Township			$25,000			
MDNR Match Grant			$50,000			

Project Name: Rebuild Influent Pumps						**Dept:** WWTP
Project Fund: Sewer Fund		**Project Location:** WWTP				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2023
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: Rehabilitate the influent pumps at the at the sanitary sewer plant.						
Project Justification: Existing pumps are in need of constant maintenance this would make them function better.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund				$60,000		

Project Name: Replace Tertiary System						**Dept:** WWTP
Project Fund: Sewer Fund		**Project Location:** WWTP				**Dept Priority:** Medium
Project Conforms to Plan: Yes		**Address Threat:** No				**Proposed Start Date:** 2023
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: Low						
Project Description: Replace tertiary system.						
Project Justification: The current system is outdated and needs to be repaired.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund				$650,000		

Project Name: SCADA (Extend Upgrade)						**Dept:** WWTP
Project Fund: Sewer Fund		**Project Location:** WWTP				**Dept Priority:** Medium
Project Conforms to Plan: No		**Address Threat:** Yes				**Proposed Start Date:** 2020
Type of Project: Upgrade				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Upgrade the SCADA system.						
Project Justification: The current system is out of date and is not as efficient as it could be.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund	$75,000					

Project Name: Return-Activated Sludge Pump Rebuilds						**Dept:** WWTP
Project Fund: Sewer Fund		**Project Location:** WWTP				**Dept Priority:** Medium
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2021
Type of Project: Rehabilitate				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Rebuild the existing return-activated sludge pumps.						
Project Justification: This equipment is under constant maintenance it is time to rebuild the pumps.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund		$36,000				

Project Name: Replace UV Control Centers						**Dept:** WWTP
Project Fund: Sewer Fund		**Project Location:** WWTP				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2021
Type of Project: Upgrade				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Replace the current UV Control Centers.						
Project Justification: The existing system is outdated and is required to be more efficient.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund	$70,000					

Project Name: New Backup Well-location						**Dept:** DPW
Project Fund: Water Fund		**Project Location:** TBD				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2025
Type of Project: Replace				**Project Coordination:** No		
Preliminary Overall Priority: Low						
Project Description: Construction of a new backup well.						
Project Justification: Construct a new backup well in case of an emergency such as the main water pipe from GLWA going down.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund						$450,000

Project Name: Water Tower Rehab						**Dept:** DPW
Project Fund: Water Fund		**Project Location:** 4760 Development				**Dept Priority:** Medium
Project Conforms to Plan: No		**Address Threat:** No				**Proposed Start Date:** 2020
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: Repaint inside and outside of water tower per EGLE recommendation.						
Project Justification: EGLE recommends rehab every 7-12 years to prolong the life of the tower						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund	$61,420	$61,420	$61,420	$61,420	$61,420	$26,730

Project Name: Almont/Hamilton Water/Sewer Project (Bond) 15 yr					**Dept:** DPW	
Project Fund: Water Fund		**Project Location:** Almont/Hamilton Avenue			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** No			**Proposed Start Date:** 2020	
Type of Project: Replace			**Project Coordination:** Yes, includes water, sewer, and roadway.			
Preliminary Overall Priority: High						
Project Description: Install new water main in this entire subdivision over the course of 3-5 years. The material is made of cement asbestos and breaks every winter.						
Project Justification: So that water service will not be interrupted because of pipe failure.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund	$37,500	$37,500	$37,500	$37,500	$37,500	$37,500
Sewer Fund	$37,500	$37,500	$37,500	$37,500	$37,500	$37,500

Project Name: AMP Main Street Water Main Replacement					**Dept:** DPW/Manager	
Project Fund: Water Fund		**Project Location:** AMP Main Street Water Main			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2023	
Type of Project: Replace			**Project Coordination:** DPW			
Preliminary Overall Priority: Medium						
Project Description: AMP Water Distribution Replacement Schedule. Replace 1000 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water Distribution Plan for details.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund				$182,403		

Project Name: AMP Loop Dead Ends – Spring & Water Streets Replacement		**Dept:** DPW/Manager
Project Fund: Water Fund	**Project Location:** AMP Loop Dead Ends Spring & Water	**Dept Priority:** High
Project Conforms to Plan: Yes	**Address Threat:** Yes	**Proposed Start Date:** 2024
Type of Project: Replace		**Project Coordination:** DPW
Preliminary Overall Priority: Low		
Project Description: AMP Water Distribution Replacement Schedule. Replace 1000 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).		
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water Distribution Plan for details.		

Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund					$182,403	

Project Name: AMP Centennial Street Replacement		**Dept:** DPW/Manager
Project Fund: Water Fund	**Project Location:** AMP Centennial Street	**Dept Priority:** High
Project Conforms to Plan: Yes	**Address Threat:** Yes	**Proposed Start Date:** 2025
Type of Project: Replace		**Project Coordination:** DPW
Preliminary Overall Priority: Low		
Project Description: AMP Water Distribution Replacement schedule. Replace 500 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).		
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water Distribution Plan for details.		

Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund						$91,202

Project Name: AMP Sullivan Street Replacement		**Dept:** DPW/Manager
Project Fund: Water Fund	**Project Location:** AMP Sullivan Street	**Dept Priority:** High
Project Conforms to Plan: Yes	**Address Threat:** Yes	**Proposed Start Date:** 2025
Type of Project: Replace		**Project Coordination:** DPW
Preliminary Overall Priority: Low		
Project Description: AMP Water Distribution Replacement schedule. Replace 750 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).		
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water Distribution Plan for details.		

Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund						$136,802

Project Name: AMP Maple Street Replacement					**Dept:** DPW/Manager	
Project Fund: Water Fund		**Project Location:** AMP Maple Street			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2025	
Type of Project: Replace			**Project Coordination:** DPW			
Preliminary Overall Priority: Low						
Project Description: AMP Water Distribution Replacement schedule. Replace 750 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water Distribution Plan for details.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund						$136,802

Project Name: Water Service Replacement Main/Kidder					**Dept:** Manager/DPW	
Project Fund: Water Fund		**Project Location:** Main Street/Howland Road			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2022	
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: At the recommendation of EGLE (Lead & Copper Rule) transfer service from old 4" main on Main Street north of M-53, (7) service leads on west side of Main Street and (10) on east side. Project includes R&R – ROWE estimate.						
Project Justification: To come into compliance with the EGLE lead and copper rule and to remove duplicate main water lines on the same roadway.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund			$81,454			

Project Name: Double Check Valve Backflow – Kingsbrook					**Dept:** Manager/DPW	
Project Fund: Water Fund		**Project Location:** Kingsbrook			**Dept Priority:** Low	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2025	
Type of Project: New			**Project Coordination:** No			
Preliminary Overall Priority: Low						
Project Description: At the recommendation of EGLE, install double check valve backflow prevention device at meter wellhouse of Kingsbrook manufactured home community.						
Project Justification: Protect the public water supply to ensure proper backflow of water distribution from privately operated water distribution system.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund			$81,454			

Project Name: East St. Clair Street – Water Main					**Dept:** WWTP/Manager	
Project Fund: Water Fund		**Project Location:** AMP – E. St. Clair Main			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2021	
Type of Project: Replace			**Project Coordination:** DPW			
Preliminary Overall Priority: High						
Project Description: AMP Water Distribution Replacement schedule. Replace 2750 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water		$501,608				

Project Name: School Street – Water Main					**Dept:** DPW	
Project Fund: Water Fund		**Project Location:** School St.			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2021	
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: AMP Water Distribution Replacement schedule. Replace 2750 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund		$151,000				
MDOT Category B		$151,000				

Project Name: Johnson Street – Water Main					**Dept:** DPW/Manager	
Project Fund: Water Fund		**Project Location:** AMP Johnson Street			**Dept Priority:** High	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2022	
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: AMP Water Distribution Replacement schedule. Replace 1500 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water distribution plan for details.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund			$273,605			

Project Name: AMP – Branch Street						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** AMP Branch Street				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2023
Type of Project: Replace				**Project Coordination:** DPW		
Preliminary Overall Priority: Medium						
Project Description: AMP Water Distribution Replacement schedule. Replace 1000 ft of pipe, original installation 1920. Estimated year of replacement based on pipe life span (2010).						
Project Justification: AMP EGLE required plan to replace public infrastructure. Refer to AMP Water distribution plan for details.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund				$182,403		

Project Name: Curb Stop Replacement DDA						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** DDA				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2020
Type of Project: Rehabilitate				**Project Coordination:** DDA, DPW, Spicer, Contractor awarded DDA Project		
Preliminary Overall Priority: High						
Project Description: In coordination with DDA Streetscape project, replace 30 curbstop boxes with stainless type.						
Project Justification: Ensure village utilities are functioning and replace (30) water stop boxes while concrete is being replaced in coordination with work of DDA Streetscape Project.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund	$19,289					

Project Name: N. Main Street Lead & Copper Rule						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** N. Main St				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2020
Type of Project: Replace				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Replace lead or galvanized service lines.						
Project Justification: Comply with EGLE Lead & Copper Rule						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water	$40,000					

Project Name: Johnson Street Lead & Copper Rule						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** Johnson St				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2021
Type of Project: Replace				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Replace lead or galvanized service lines.						
Project Justification: Comply with EGLE Lead & Copper Rule						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund		$40,000				

Project Name: Branch Street Lead & Copper Rule						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** Branch St				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2020
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: Replace lead or galvanized service lines.						
Project Justification: Comply with EGLE Lead & Copper Rule						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water Fund			$40,000			

Project Name: E. St. Clair Street Lead & Copper Rule						**Dept:** DPW/Manager
Project Fund: Water Fund		**Project Location:** E. St. Clair St				**Dept Priority:** High
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:**
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: Replace lead or galvanized service lines.						
Project Justification: Comply with EGLE Lead & Copper Rule						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Water				$40,000		

Project Name: Sidewalk Installations						**Dept:** DPW/Manager
Project Fund: General Fund/Act 51		**Project Location:** Community-wide				**Dept Priority:** Medium
Project Conforms to Plan: Yes		**Address Threat:** Yes				**Proposed Start Date:** 2020
Type of Project: New/Replace			**Project Coordination:** DPW			
Preliminary Overall Priority: High						
Project Description: Install sidewalks where connectivity ceases to exist; repair damaged sidewalks. Survey sidewalks for inventory list.						
Project Justification: Preventing trip hazards and improving connectivity of existing sidewalks.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Local Streets	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
SCRAP Tire (50%)						

Project Name: June Drive 2" Overlay						**Dept:** DPW
Project Fund: Local Streets		**Project Location:** June Drive				**Dept Priority:** High
Project Conforms to Plan: No		**Address Threat:** No				**Proposed Start Date:** 2023
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: Apply new asphalt to the streets within the subdivision.						
Project Justification: Streets are in disrepair.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Local Streets				$60,000		
SCRAP Tire (50%)						

Project Name: Bernice Drive 2" Overlay					**Dept:** DPW	
Project Fund: Local Streets		**Project Location:** Bernice Drive			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2025	
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: Low						
Project Description: Apply new asphalt to the streets within the sub.						
Project Justification: Streets are in disrepair.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Local Streets					$45,000	
SCRAP Tire (50%)						

Project Name: Jonathon Drive 2" Overlay					**Dept:** DPW	
Project Fund: Local Streets		**Project Location:** Jonathon Drive			**Dept Priority: High**	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2025	
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: Low						
Project Description: Apply new asphalt to the streets within the sub.						
Project Justification: Streets are in disrepair.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Local Streets					$80,000	
SCRAP Tire (50%)						

Project Name: McIntosh Asphalt Application					**Dept:** DPW	
Project Fund: Local Streets		**Project Location:** Entire Subdivision			**Dept Priority:** Medium	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2021	
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: Medium						
Project Description: Apply new asphalt to the streets within the subdivision.						
Project Justification: Streets are in disrepair						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Local Streets	$50,000					
SCRAP Tire (50%)						

Project Name: Cherry Street Paving					**Dept:** Manager/DPW	
Project Fund: Act 51		**Project Location:** Cherry Street			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2020	
Type of Project: Rehabilitate			**Project Coordination:** DPW			
Preliminary Overall Priority: High						
Project Description: Repave existing roadway – recap.						
Project Justification: Road in poor condition/PASER.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Act 51	$65,000					

Project Name: Johnson Street Paving					**Dept:** Manager/DPW	
Project Fund: Act 51		**Project Location:** Johnson Street			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2020	
Type of Project: Rehabilitate			**Project Coordination:** DPW			
Preliminary Overall Priority: High						
Project Description: Repave existing roadway – recap.						
Project Justification: Road in poor condition/PASER.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Act 51	$260,000					

Project Name: June Drive Force Main					**Dept:** DPW/Manager	
Project Fund: Sewer Fund		**Project Location:** June Drive Lift Station			**Dept Priority:** Medium	
Project Conforms to Plan: Yes		**Address Threat:** Yes			**Proposed Start Date:** 2022	
Type of Project: Upgrade			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: SAW Grant CIP Project – Replace June Drive Force Main Replacement.						
Project Justification: Increased capacity at K-Lynn Subdivision and history of broken force main repairs.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund		$243,500				

Project Name: Clean and TV a Portion					**Dept:** DPW	
Project Fund: Sewer		**Project Location:** Whole Village			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** Yes			**Proposed Start Date:** 2020	
Type of Project: Rehabilitate			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: Clean and TV of existing pipes.						
Project Justification: It is not clear what the current condition of the infrastructure is.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000

Project Name: Jonathon Lift Station Pumps					**Dept:** Manager/WWTP	
Project Fund: Sewer		**Project Location:** Jonathon Lift Station			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** Yes			**Proposed Start Date:** 2021	
Type of Project: New/Replace				**Project Coordination:** Wastewater Treatment Plant		
Preliminary Overall Priority: High						
Project Description: Replace vacuum-based pumps with submersible type.						
Project Justification: Vacuum-based pump system has proven to be problematic.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer		$100,000				

Project Name: Farnum Drain Main Sewer Interceptor					**Dept:** DPW	
Project Fund: Sewer		**Project Location:** Along the Farnum Drain			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2022	
Type of Project: Replace				**Project Coordination:** No		
Preliminary Overall Priority: Medium						
Project Description: Replace or reline the main sewer interceptor along the Farnum drain from West Saint Clair to M-53.						
Project Justification: So that the sewer service is not interrupted by breaks or blockages.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer			$600,000			

Project Name: Storm Drainage System Evaluation					**Dept:** DPW	
Project Fund: Sewer Fund		**Project Location:** Whole Village			**Dept Priority:** Medium	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2020	
Type of Project: Rehabilitate				**Project Coordination:** No		
Preliminary Overall Priority: Medium						
Project Description: Conduct an inventory of the system to evaluate backup and condition.						
Project Justification: Improve storm drainage and ensure system is properly functioning.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Sewer Fund	$50,000			$50,000	$50,000	$50,000

Project Name: New Pickup Truck (Wastewater)					**Dept:** WWTP	
Project Fund: Equipment		**Project Location:** WWTP			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2021	
Type of Project: New				**Project Coordination:** No		
Preliminary Overall Priority: High						
Project Description: Purchase a new pickup truck for the wastewater department.						
Project Justification: In constant need of a pickup truck to move equipment and staff.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment		$28,000				

Project Name: Leaf Machine Replacement					**Dept:** DPW	
Project Fund: Equipment		**Project Location:** DPW			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2020	
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: Replace the current 2003 leaf collector.						
Project Justification: The Leaf collector will be almost 20 years old and has been reconditioned once.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment	$10,000	$58,000	$12,000	$20,000		

Project Name: DPW Building/Garage					**Dept:** DPW	
Project Fund: General Fund		**Project Location:** Current Location/New Location			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2024	
Type of Project: Upgrade			**Project Coordination:**			
Preliminary Overall Priority: Medium			Manager/Clerk/Treasurer's Office			
Project Description: DPW garage building that will accommodate updated equipment and personnel.						
Project Justification: $2.5 million worth of equipment is stored in a $50,000 pole barn. Not all equipment can be stored inside and 25% is parked outside. No security for SCADA water system controls/computers. No bathroom/shower room, break room, or locker room for employees.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
General Fund					$450,000	

Project Name: Municipal Building Parking Lot Reconfiguration					**Dept:** Manager	
Project Fund: General Fund		**Project Location:** Village Municipal Building			**Dept Priority:** Medium	
Project Conforms to Plan: No		**Address Threat:** No			**Proposed Start Date:** 2023	
Type of Project: New/Replace/Rehabilitate/Upgrade			**Project Coordination:** Coordinate project with Almont Township			
Preliminary Overall Priority: Low						
Project Description: Reconfigure front parking area of Village Office by adding additional parking to front of building partially removing green space. Curb/gutter and additional drainage required. Repave entire parking lot.						
Project Justification: Public improvement. Voting precinct not enough parking to accommodate the public.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Village General Fund				$70,000		
Almont Township				$70,000		

Project Name: Patrol Vehicle					**Dept:** Police	
Project Fund: Equipment		**Project Location:** Police Station			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** Yes			**Proposed Start Date:** Annual	
Type of Project: Replace			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: New patrol vehicle.						
Project Justification: Ongoing police operations						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000

Project Name: Police Station Guard Rail					**Dept:** Police	
Project Fund: Equipment		**Project Location:** Police Station			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** Yes			**Proposed Start Date:** High	
Type of Project: New			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: Guard rail installed in front of police building.						
Project Justification: Will protect officers and building from vehicle damage.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment	$10,000					

Project Name: Police In-Car Cameras					**Dept:** Police	
Project Fund: Equipment		**Project Location:** Police Car			**Dept Priority:** High	
Project Conforms to Plan: No		**Address Threat:** Yes			**Proposed Start Date:** Annual	
Type of Project: New			**Project Coordination:** No			
Preliminary Overall Priority: High						
Project Description: 7 In-Car cameras.						
Project Justification: Will assist in protecting officers from false claims, assist in training, assist with more detailed report writing.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment	$15,000					

Project Name: Police Car Port/Garage Rehab				**Dept:** Police	
Project Fund: Equipment		**Project Location:** Village Hall		**Dept Priority:** Medium	
Project Conforms to Plan: No		**Address Threat:** No		**Proposed Start Date:** 2022	
Type of Project: New/Rehabilitate			**Project Coordination:** No		
Preliminary Overall Priority: Medium					
Project Description: Car port for 6 patrol vehicles.					
Project Justification: Car port will decrease damage to parking lot, will assist with snow removal, and will protect cars from sun damage.					
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment			$75,000			

Project Name: One Ton Utility Truck					**Dept:** DPW	
Project Fund: Equipment	**Project Location:** DPW				**Dept Priority:** Medium	
Project Conforms to Plan: No	**Address Threat:** No				**Proposed Start Date:** 2023	
Type of Project: New			**Project Coordination:** None			
Preliminary Overall Priority: High						
Project Description: Replacement of the DPW light duty truck.						
Project Justification: The current truck will be 25 years old and time to replace.						
Funding Source	**2020-2021**	**2021-2022**	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Equipment	$65,000					

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Appendix E

Public Participation

Figure E1

Notice of Public Hearing

NOTICE OF PROJECT PLANNING PUBLIC HEARING
Appendix E

The Village of Almont will hold a public hearing on the proposed Clean Water project plan for the purpose of receiving comments from interested persons.

The hearing will be held at 7:00p.m. on Wednesday, April 26th, 2023, at the Village of Almont offices located at 817 N. Main St., Almont, Michigan 48003.

The purpose of the proposed project is to eliminate any a public health risks due to sewer infrastructure that continues to fail.

Project construction will involve improvements to the wastewater collection and treatment system as identified in the Village CIP. Improvements include rebuilding influent pumps, replace the tertiary system, SCADA upgrades, replacement of UV controls, June Drive force main replacement, pump station upgrades and sewer and manhole lining.

Impacts of the proposed project will be repairing of the sewer system and lift stations to eliminate the public health risk possibilities. Short term construction related impacts include increased noise and dust that is temporary in nature during construction of the improvements.

The estimated cost to the users for the proposed project will be dependent upon final Project Scope, Project Costs, and financing.

Copies of the plan detailing the proposed project are available for inspection at the Village of Almont offices located at 817 N. Main St., Almont, Michigan 48003.

Written comments received before the meeting record is closed on Wednesday April 26th, 2023 will be included in the final project planning document. Written comments should be sent to the Village of Almont. Village of Almont mailing address is 817 N. Main St., Almont, Michigan 48003.