



GRETCHEN WHITMER  
GOVERNOR

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



LIESL EICHLER CLARK  
DIRECTOR

August 3, 2021

VN No. VN-011933

VIA E-MAIL

Mr. Robert Hilty, Chairman  
Lake Mitchell Sewer Authority Board  
3161 South Lake Mitchell Drive  
Cadillac, Michigan 49601

Dear Mr. Hilty:

SUBJECT: Violation Notice

The Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division (WRD), determined the Lake Mitchell Sewer Authority (LMSA) is in violation of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.3101 et seq., and the administrative rules promulgated thereunder being 2006 AACRS R 323.2101 et seq., as amended, and Part 41, Sewerage Systems, of the NREPA, and the administrative rules promulgated thereunder being 2012 AACRS R 299.2901 et seq., as amended.

The WRD's Cadillac District Office was notified on several occasions in 2020 and 2021 of discharges of raw or partially treated sewage from the LMSA sanitary sewer system. The discharges were reported to WRD, as required by Part 31, Section 3112a. Discharge of raw or partially treated sewage from a sewer system onto land or into the waters of the state is a violation of Part 31 of the NREPA. The discharge of raw or partially treated sewage is considered a sanitary sewer overflow (SSO) and is also in violation of Part 41 of NREPA.

The WRD previously issued a violation notice to the LMSA in response to SSOs from sewage pump station 1B during wet weather (VN-007294, dated August 11, 2017). The 2017 violation notice required the LMSA to address: wet weather flow into the sewer system; backup power and power reliability; and station 1B pump performance. Two additional SSOs occurred later in 2017 (one from pump station 1B related to wet weather and one from grinder station 16B from a broken discharge line). In response, the WRD required the LMSA to develop an asset management program in a July 2018 letter. No SSOs occurred from the LMSA system in 2018. Four SSOs occurred from the LMSA system in 2019 and an SSO occurred in February 2020. In response, the WRD sent the LMSA a compliance communication (CC-002514, dated March 10, 2020). The 2020 compliance communication presented: WRD's understanding of activities completed and proposed to address SSOs; WRD's concerns with the age and condition of the LMSA system; and WRD's support for the proposed grinder and pump station project funded through a loan from the United States Department of Agriculture (USDA). WRD issued a Part 41 (or construction) permit for pump station 1A and 2A upgrades on January 10, 2020 and WRD received a Part 41 permit application for the proposed USDA grinder and pump station project on May 19, 2021.

The LMSA system was installed over 40 years ago. The WRD considers many of the recent (2017 to 2021) SSOs to be related to old and obsolete sewer system equipment. The WRD also considers the recent SSOs to be signs that a significant sewer system upgrade is necessary and overdue. Additionally, the LMSA notified WRD after the December 2020 SSO from Pump Station 2A that this station normally operates with only one pump as the piping for the second pump is in deteriorated and fragile condition. A pump station, serving multiple homes, with only one regularly operable pump does not meet the standards and requirements of NREPA Part 41 for redundancy and reliability, and is a significant concern. The WRD is concerned that a system upgrade be completed in time to prevent future SSOs and/or backups.

The following Table 1 and Table 2 summarize the 2017 to 2021 SSOs and WRD's understanding of the work completed and proposed to address the SSOs.

**Table 1 - LMSA SSOs and EGLE response since 2017**

<b>Date</b>	<b>SSO Location or <i>EGLE Response</i></b>	<b>SSO Cause</b>
May 2017	Pump Station 1B	Heavy rains, wet weather flow, and power outage
July 2017	Pump Station 1B	Heavy rains, wet weather flow
<i>August 2017</i>	<i>EGLE Violation Notice VN-007294</i>	
September 2017	Grinder Station 16B	Broken discharge line
October 2017	Pump Station 1B	Heavy rains, wet weather flow
<i>July 2018</i>	<i>EGLE letter requiring additional action &amp; asset management</i>	
July 2019	Pump Station 1A	Electrical problem
September 2019	Grinder Station 4A	Pump malfunction due to wipes and grease
October 2019	Grinder Station 10A	Electrical problem
October 2019	Grinder Station 57B	Cracked discharge line
February 2020	Grinder Station 53A	Broken discharge line
<i>March 2020</i>	<i>EGLE Compliance Communication CC-002514</i>	
May 2020	Pump Station 1B	Heavy rains, wet weather flow
June 2020	Grinder Station 27A	Electrical problem
July 2020	Grinder Station 44A	Wipes binding pump
July 2020	Grinder Station 32A	Wipes binding pump
December 2020	Pump Station 2A	Electrical problem, only one pump operational due to piping deterioration
April 2021	Grinder Station 9A	Electrical problem
May 2021	Grinder Station 15C	Leak during valve and line repair

**Table 2 – Activities Completed and Proposed by LMSA**

Goal	Task	Status
Prevent future SSOs from Station 1B	Smoke tested homes and grinder stations contributing to Station 1B (approximately 200+ homes and 50 grinder stations) Monitored run times (flow) of select stations	Completed 2017
	Identified 91 priority homes that may be sources of inflow	
	Notice sent to homeowners regarding illegal connections (sump pumps, foundation drains, other sources of clean water)	Completed 2017
	Station alarms reprogrammed and emergency procedures modified to improve response times	Completed 2017
Identify and Eliminate Inflow	Evaluated and improved Station 1B performance (pump impeller adjustment)	Completed 2018
	Inspected station rim elevations	
	Identified 22 high-priority stations subject to inflow from surface flooding	Completed 2019
	Extended/raised the rim elevations of the 22 high priority stations	
	Modify township sewer ordinances to allow for enforcement related to illegal connections and to allow for inspections	Scheduled to be completed in 2020 (update needed)
	Inspect 91 high priority homes identified as potential sources of inflow during 2017 testing and monitoring	Scheduled to be completed in 2020 (update needed)
	Smoke test additional grinder stations (total of 205 grinder stations in system, approximately 50 tested in 2017)	To complete testing of approximately 50 stations per year from 2021 through 2024 or complete during grinder station replacement project (2021-2022)
	Extend/raise the rim elevations of other grinder stations (as required)	Complete during grinder station replacement project (2021-2022)
	Inspect remaining homes (approximately 887-91 = 796 homes)	To complete a % each year starting in 2021 through 2024

**Table 2 (continued) – Activities Completed and Proposed by LMSA**

Goal	Task	Status
Identify and Eliminate Inflow (continued)	Eliminate illegal connections and/or verify illegal connections eliminated	To complete a % each year starting in 2021 through 2025
	Estimate and track inflow volumes over time	Include with asset management reports
	Track inflow reduction work completed and costs	
Address Aging Infrastructure and Future Operation and Maintenance	User rate increase to approximately \$211 per quarter	Completed in 2018
	Apply for EGLE Part 41 application for pump station 1A and 2A upgrades	Application sent to EGLE August 2019 and permit approved in January 2020
	Apply for Rural Development funding for grinder station replacement project (project to include permanent generators for pump stations)	Completed 2020
	Develop Asset Management Plan including an evaluation of power reliability (i.e. backup power and bypass pumping capabilities)	To complete after Rural Development project closing or by the end of 2021
	Prepare Annual Asset Management Program Reports	Complete first report in 2022 and submit to EGLE each year for 5 years

The WRD recognizes the LMSA made significant progress in response to the 2017 VN and significant additional work is planned (as summarized in Table 2 above). The WRD strongly supports the planned pump station and grinder station projects (and the other planned work). The WRD considers the pump station and grinder station upgrades/replacements to be necessary in order to prevent future SSOs. The WRD encourages the LMSA to aggressively complete system upgrades. Delays in funding or delays in completion of system upgrades/replacements may result in future SSOs which will result in escalated enforcement action.

SSOs identified in this Violation Notice have ceased. The LMSA should take immediate action to prevent future SSOs and maintain compliance with Part 31 and Part 41 of NREPA. Please provide the following information to the WRD at [BradyD6@michigan.gov](mailto:BradyD6@michigan.gov) by September 20, 2021.

1. An update of the progress and schedule for proposed work shown in Table 2 and any additional work proposed to address SSOs, infiltration and inflow, and aging infrastructure.
2. Identification of any pump or grinder stations serving multiple homes (other than Pump Station 2A) that are only normally operating with only one pump.

Mr. Robert Hilty  
Page 5  
August 3, 2021

3. A plan for additional monitoring (e.g. more frequent visits and/or remote monitoring) of Pump Station 2A to ensure that failure of the one normally operating pump does not cause an SSO or backup.
4. A contingency plan for maintaining service and preventing backups and SSOs if the one normally operating pump in Pump Station 2A fails.

If the LMSA has any factual information it would like the WRD to consider regarding the violations identified in this Violation Notice, please provide the information with the written response or update.

The WRD anticipates and appreciates the LMSA's cooperation in resolving this matter. Should the LMSA require further information regarding this Violation Notice or like to arrange a meeting to discuss it, please contact me at [BradyD6@michigan.gov](mailto:BradyD6@michigan.gov) or 231-429-5686.

Sincerely,



Don Brady, P.E.  
Environmental Engineer  
Cadillac District Office  
Water Resources Division

cc: Mr. Brian Jankowski, EGLE, WRD  
Mr. Luis Saldivia, EGLE, WRD  
Mr. Phil Argiroff, EGLE, WRD  
Mr. Dave Pingel, EGLE, WRD  
Ms. Sheila Hill, LMSA  
Mr. Brian Sousa, Wade-Trim  
Mr. Richard Wilson, Mika Meyers PLC