

Stormwater Management Plan

Michigan General Permit Number: MIS040000

Certificate of Coverage Number: MIG610103

Municipality/Agency: City of Grand Ledge

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PURPOSE

The purpose of this Stormwater Management Plan (SWMP) is to bring together the following stormwater pollution controls for the City of Grand Ledge MS-4:

- Goals and actions from the City of Grand Ledge Stormwater Management Plan (SWMP);
- Action items of the Public Participation/Involvement Program (PPP);
- Action items of the Public Education Program (PEP);
- Action items of the Illicit Discharge Elimination Plan (IDEP);
- Actions applicable to post construction controls for areas of significant development and redevelopment to meet the NPDES permit requirements;
- Actions applicable to pollution prevention and good housekeeping for municipal operations to meet the NPDES permit requirements;
- Details and schedules to describe the process for implementing the program; and
- Evaluation methods to demonstrate the reduction of stormwater pollution to the maximum extent practicable.

The City of Grand Ledge is an active participant in the Greater Lansing Regional Committee (GLRC) and is fully supportive of all the activities of the Committee. As a member of the GLRC the City of Grand Ledge has adopted the GLRC SWMP in its entirety. This SWMP includes actions expected to be implemented over the term of the permit, and in some cases beyond.

This SWMP addresses the specific actions that the City of Grand Ledge committed to, as identified by the GLRC. The City of Grand Ledge has several stormwater outlets to the Grand River Watershed as well as the Looking Glass River Watershed. Those that have been identified are listed in Appendix A of the attached IDEP.

The City of Grand Ledge has two watersheds within its urbanized area which resulted in the Stormwater Management Plan. Table 1 outlines the specific activities that the City of Grand Ledge has undertaken, or will undertake, with respect to each of its commitments in the SWMP and to address other permit requirements as necessary.

SWMP REVISIONS

Michigan Department of Environmental Quality (DEQ) approval will be sought for revisions to date-specific commitments listed in Table 1.

RETENTION OF RECORDS

The City of Grand Ledge will retain the approved SWMP, and its associated records, in-house for a minimum of three years after the termination of the permit. The records will be available upon request by DEQ and shall include, but not be limited to:

- Information regarding the effectiveness of these activities;
- Records of analyses performed;
- Calibration and maintenance of instrumentation, if used;
- Recordings from continuous monitoring instrumentation.

These records will be retained by the City of Grand Ledge, and submitted to DEQ upon request.

The following section corresponds to the Stormwater Discharge Permit Application. Each numbered section correlates directly to the permit application.

STORMWATER MANAGEMENT PROGRAM – SECTION VII

1. The City of Grand Ledge has put in place sanctions for violations of the Post-Construction Stormwater Management Ordinance. Any person violating any provision of an applicable ordinance shall be responsible for a municipal civil infraction and subject to a fine for a first offense and enhanced fines for subsequent offense(s) plus costs, damages, expenses, and other sanctions authorized by the Grand Ledge City Code and Chapter 87 of the Revised Judicature Act of 1961 and other applicable laws, including, without limitation, equitable relief.

On November 24, 2014, the City of Grand Ledge adopted Ordinance #551 which became effective December 8, 2014. This ordinance specifically addresses illicit discharges to the City's MS4's and the City's necessary response.

The primary administrator of this ordinance is the Public Service Director, currently, Mr. Larry LaHaie.

In the event of an illicit discharge:

- A. Based on training and experience, the City (Public Service Director or staff) will decide if it is an emergency situation. If so, the City will act to suspend the discharge by order to the violator. If the violator fails to comply, the City may "take such steps as deemed necessary..." Section 177-9.
- B. If the City determines that the violation is not an emergency, Section 177-15 procedures will be followed.

- C. Failure to comply with the City's notification of a violation within the prescribed time frame (usually 30 days; which is also the time frame for an appeal), then the City may issue a Municipal Civil Infraction notice.

In any of the above events, records will be kept in both the City Clerk's office and the Public Service Department noting:

1. Initial date and location of suspected illicit discharge.
2. Actions taken to identify the discharge and source.
3. Responsible party.
4. Initial notice to responsible party.
5. Actions taken to remedy the violation and schedule.

If there are Appearance Tickets issued, see Section 177-22, the City Attorney is also notified and maintains records including:

6. Date the violation is ended.
7. Follow-up on any compensatory action, Section 177-19.

Public Participation/Involvement Program (PPP)

2. The SWMP will be made available for public inspection via the City of Grand Ledge website, newspaper and other print media. These same media outlets will be used to make the public aware of opportunities to provide comment. Local public notice requirements will be met as appropriate.
3. As required, the SWMP will be made available to the public via the City of Grand Ledge website. Inviting the public to participate in the implementation and periodic review of the SWMP will also be accomplished through the City website. When progress reports are submitted to the DEQ, they will be posted on the City website. This will update the public and invite them to participate or provide input related to the implementation of the SWMP if they so choose.

Public Education Program (PEP)

4. The GLRC conducted a water quality survey of residents during the fall of 2006. The purpose of the survey was to provide a benchmark to gauge the effectiveness of regional and local public outreach campaigns on water quality issues in the Greater Lansing Region. The survey results provided a baseline for evaluating the effectiveness of regional and local water quality initiatives over time. These results have been used by the GLRC and other organizations in the region to prioritize and implement public education programs through the most effective and efficient methods possible.
5. The following PEP topics have been prioritized and the target audience, key message, delivery mechanism, year and frequency that the BMP will be implemented have been

identified. For further explanation of each topic and the associated activities please see Appendix A.

- A. Promote public responsibility and stewardship in the applicant's watershed(s).
 - B. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the State.
 - C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.
 - D. Promote preferred cleaning materials and procedures for car, pavement, and power washing.
 - E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
 - F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4. The City of Grand Ledge has two pet waste disposal stations that are maintained by City staff.
 - G. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous waste, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
 - H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.
 - I. Educate the public on, and promote the benefits of, green infrastructure and Low Impact Development.
 - J. Promote methods for managing riparian lands to protect water quality.
 - K. Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to stormwater runoff.
6. Since a baseline for evaluating the effectiveness of current (and past) water quality initiatives was completed in 2006, the GLRC committed to conducting the survey again in 2012 to identify successes related to the current public education efforts and areas for improvement. The 2012 survey was conducted in the exact same manner as the 2006 survey; both statistically valid surveys ensure the effectiveness of the public education efforts.

The GLRC PEP Committee will conduct a follow up survey to be completed when approaching the end of the permit cycle. The survey will be used to evaluate successes, challenges and to determine the overall effectiveness of the PEP. During the Progress Report submittal, general evaluation and effectiveness will be discussed and changes could be made based on initial results.

Illicit Discharge Elimination Program (IDEP)

7. Updated storm sewer system maps are available at the City of Grand Ledge Public Service Building or Eng, Inc. and 4063 Grand Oak Dr, Suite A109, Lansing, MI 48911, respectively. These maps will be updated at the end of each calendar year and will reflect any added/removed stormwater controls.

8. All outfalls within the City of Grand Ledge will be inspected once per permit cycle. No prioritization will be given to outfalls for this reason. The outfalls are all screened during a 2-day period in August of the second year of the permit period.
9. Not applicable.
10. Utilizing trained staff, all discharge points within the City of Grand Ledge will be inspected once during the permit cycle. Dry weather screening will take place at least 48 hours after any precipitation. In the event the City of Grand Ledge becomes aware of a non-stormwater discharge, the frequency of inspection may change. The following observations will be documented:
 - A. Presence/absence of flow.
 - B. Water clarity, color and odor.
 - C. Presence of suds, oil sheens, sewage, floatable materials, bacterial sheens, algae and slimes.
 - D. Staining of banks.
 - E. Unusual vegetative growth.
 - F. Structural condition of outfall or point of discharge.
11. If dry weather flow is observed, the inspector will make all efforts possible to determine the source and eliminate the illicit discharge. If the source of discharge is not obvious, then the inspector will at a minimum analyze the flow for indicator parameters, including pH, ammonia, surfactant, and temperature. The field screening will take place at the time of inspection.
12. At times, an illicit discharge may be found during inspection. Additionally, an observer may report an illegal dumping or spill that could result in an illicit discharge into the MS4. If an illicit discharge is detected and the source has not been identified, then further investigation is necessary. The appropriate agency will first be notified if necessary (CEA, DEQ, Health Department, etc). The source may be confirmed by one or more of the following methods:
 - A. Sampling and testing will be performed by the City to verify the contaminant.
 - B. Dye Testing.
 - C. Video Testing.
 - D. Smoke Testing.
 - E. Homeowner Surveys.
 - F. Drainage area investigations. The City of Grand Ledge will identify likely sources of discharge and will follow the storm sewer system upstream from the first point of detection towards the potential sources. Field personnel will check the storm sewer system for indicator parameters at regular intervals between the first point of detection and the potential source of discharge. Personnel will follow the contaminant upstream through this process until a source is determined.
 - G. If the City is responding to a complaint, or if the screening appears to be an illegal discharge, the City will respond with an immediate field investigation. All other screening will undergo a field investigation within 2 weeks.

13. If an illegal dumping or spill is observed, or the City of Grand Ledge is made aware of an illegal dumping or spill, the City of Grand Ledge will respond as quickly as possible. City personnel will first assess the situation to determine the appropriate agency needed to contain or clean the spill. If follow-up field screening or a source investigation is necessary the City of Grand Ledge will act accordingly.
14. Not applicable. Field observations will be conducted at all outfalls and points of discharge.
15. Any suspected illicit discharge will be reported immediately to the appropriate DEQ District Office unless a determination is made that the release is not in excess of the threshold reporting quantities in the Part 5 Rules. If the notice is provided after regular working hours, the DEQ 24-Hour Pollution Emergency Alerting System phone number will be called: 800-292-4706. Each suspected discharge will be documented and reviewed for follow up.
16. Not applicable.
17. All illicit discharges must be eliminated as quickly as possible. If an illicit discharge is found on private property the City will notify the property owner of the violation immediately. The City will make all possible efforts to work with the property owner to eliminate the illicit discharge. The property owner will be given 30 days to eliminate the illicit discharge. In the event the property owner does not take action in the allotted time, the City attorney will be contacted to take action to eliminate the discharge.

The City of Grand Ledge has set up procedures necessary for cleaning up spills and preventing the spilled materials from being discharged. All employees have been made aware of the proper procedures. Minor spills of small quantities of pollutants (less than five gallons) shall be cleaned by using a spill kit consisting of a water-proof 5-gallon bucket of absorbent, a whisk broom, and a plastic dust pan where applicable.

In the event of a substantial release of materials that could impact stormwater runoff, the spill will be reported to Larry LaHaie, Public Service Director at the City of Grand Ledge. The appropriate companies approved to provide spill response activities for the facility will then be contacted.

18. The City of Grand Ledge recognizes that an effective IDEP depends on the abilities of the staff or consultants performing the above tasks. To support this activity, The City of Grand Ledge will:
 - A. Provide IDEP training opportunities to staff within the Public Service department. Training will be provided for a minimum of two personnel each year. Additionally, new hires will be trained within their first year of service.
 - B. Refresher training will be provided every three years for trained staff.
 - C. Develop a training program to:
 1. Provide initial training to appropriate staff including:

- a) The definition of illicit discharges and connections.
 - b) Techniques for finding illicit discharges, including field screening, source identification, and recognizing illicit discharges and connections.
 - c) Methods for eliminating illicit discharges and the proper enforcement response.
 - d) Documentation and office coordination.
 - e) Field procedures and safety.
 - f) Limitations of authority.
2. Provide scheduled training for:
 - a) New staff.
 - b) Refreshers.
 - c) Changes in policies or procedures.
19. Annually, the City of Grand Ledge will evaluate the IDEP process and the effectiveness of the program by analyzing the following parameters:
- A. Number of illicit discharges located.
 - B. Number of illicit discharges eliminated.
 - C. Estimated volume and pollutant load eliminated.
 - D. Training goals met.
 - E. Corrective action to revise the process or priorities.
 - F. Reporting.

The annual review will be documented, placed on file and posted to the City of Grand Ledge website.

20. The City of Grand Ledge Ordinance #551 (amending the Grand Ledge City Code by adding a new chapter 177, Stormwater Illicit Discharge Elimination) was adopted November 24, 2014. The Ordinance became effective December 8, 2014.
- .21. The Illicit Discharge Elimination Plan does not prohibit the discharge or flows from firefighting activities to the MS4. Discharge or flows created by firefighting activities are not considered a significant contributor of pollutants.
22. The City of Grand Ledge does not consider the following categories of non-stormwater discharges or flows as significant contributors of pollutants to the MS4. As a result, these flows are not prohibited but may be monitored:
- A. Water line flushing and discharges of potable water sources.
 - B. Landscape irrigation runoff, lawn watering runoff, and irrigation waters.
 - C. Diverted stream flows and flows from riparian habitats and wetlands.
 - D. Rising groundwater and springs.
 - E. Uncontaminated groundwater infiltration.
 - F. Pumped groundwater (except for groundwater cleanups not specifically authorized by NPDES permits), foundation drains, and water from crawlspace pumps; footing drains, and basement sump pumps.

- G. Air conditioning condensates.
- H. Waters from noncommercial car washing.
- I. Residual street wash waters.
- J. Discharges or flows from emergency fire fighting activities.
- K. Dechlorinated swimming pool waters from single, two, or three family residences.
Water from a swimming pool operated by the permittee will not be discharged to a separate storm sewer or to the surface waters of the state without specific NPDES permit authorization from the City.

23. The City of Grand Ledge City Ordinance #551, Section 177-5 prohibits any person from placing, depositing or permitting to deposit in any area under jurisdiction of the City for discharge into any natural watercourse any substance which is injurious to the public health or detrimental to the public welfare.

Additionally the Illicit Discharge Elimination Plan has been put into place to regulate the discharge of non-stormwater materials into waters of the state. The Illicit Discharge Elimination Plan can be found as Appendix B of this SWMP.

24. The Illicit Discharge Elimination Plan prohibits non-stormwater discharges, including illicit connections and the direct dumping or disposal of materials, into the stormwater system. Stormwater is defined as stormwater runoff, snow melt runoff and surface runoff and drainage.
25. As outlined in Ordinance #551, Section 177-11, the City of Grand Ledge has the authority to inspect, investigate and monitor all suspected illicit discharges.
26. See number 17 above. Ordinance #551, Section 177-9 Suspension of discharges to municipal separate storm sewer system, Subsection A states:

“Suspension due to illicit discharges in emergency situations. The city may, without prior notice, suspend municipal separate storm sewer system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the municipal separate storm sewer system or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the city may take such steps as deemed necessary to prevent or minimize the damage to the municipal separate storm sewer system or waters of the United States, or to minimize danger to persons.”

27. All illicit discharges must be eliminated as quickly as possible. If an illicit discharge is found on private property the City will notify the property owner of the violation immediately. The City will make all possible efforts to work with the property owner to eliminate the illicit discharge. The property owner will be given 30 days to eliminate the illicit discharge. In the event the property owner does not take action in the allotted time, the City attorney will be contacted to take action to eliminate the discharge.

Construction Stormwater Runoff Control Program

28. The City of Grand Ledge operates under the Eaton County Soil Erosion and Sedimentation Control Ordinance. This ordinance was approved by the Eaton County Board of Commissioners.
29. In the event it is brought to the attention of the City of Grand Ledge that soil or sediment is discharged to an MS4, the City of Grand Ledge will refer the complaint to the Eaton County Drain Commissioner, the enforcing agent for the Eaton County Soil Erosion and Sedimentation Control Program.
30. When the City discovers any discharge to the City's MS4 that may impact water quality, the City will notify the MDEQ District Office at (517) 284-6651.

If after hours or an emergency (i.e. a large discharge that cannot be easily contained), the City will call (800) 292-4706, the MDEQ Environmental Emergency number.
31. During the site plan review it will be determined whether a DEQ Part 91 permit is necessary for the proposed project. Any construction activity that will disturb one acre or more with the potential to discharge to an MS4 will be required to obtain a Part 91 permit prior to final construction plan approval.
32. As part of the preliminary site review meeting between the City of Grand Ledge and a developer's team, the NPDES permit will be brought to the attention of the landowner or recorded easement holder and will be discussed in detail. See Chapter 2, Section E.3 of the Post-Construction Stormwater Control Manual for further detail.

Post-Construction Stormwater Runoff Program

33. The ordinance on post-construction stormwater runoff from new development and redevelopment projects can be found in Chapter 176 of the City of Grand Ledge Code. Additionally, the City of Grand Ledge has created the Post-Construction Stormwater Control Manual to outline the requirements of their Post-Construction Stormwater Runoff Program.
34. The post-construction stormwater runoff ordinance applies to projects that disturb at least one or more acres, and any projects less than an acre that are part of a larger common plan of development or sale and discharge into the City of Grand Ledge MS4. These criteria are outlined in section 176-5 of the Post-Construction Stormwater Management Ordinance.
35. The City of Grand Ledge is not an owner or operator of a federal facility with a stormwater discharge.
36. Not applicable.

37. Section 176-11.d.6 of the Post-Construction Stormwater Runoff Ordinance requires that the first one inch of runoff from a site must be treated.
38. Not applicable.
39. Section 176.11.d.6 of the Post-Construction Stormwater Runoff Ordinance requires that a minimum discharge concentration of TSS not to exceed 80 mg/L is met. If the required minimum TSS levels are not met by the capture of one inch of runoff from the entire site, then additional treatment methods *must be designed* to meet the minimum TSS removal requirements.
40. Section 176.11.d.4 of the Post-Construction Stormwater Runoff Ordinance requires that the peak discharge rate from all storms up to the 100-year, 24-hour event shall not be greater than predevelopment discharge rates.
41. Not applicable.
42. See Chapter 2, Section E.3 of the Post-Construction Stormwater Control Manual for an initial site review meeting. Any sensitive areas will be addressed at that meeting. The Design Manual, Chapter 3, Section 2 and 3 address procedures for protection of sensitive areas when utilizing infiltration. For all groundwater discharges, MDEQ staff must be consulted.
43. Stormwater “hotspots” are defined as land uses that generate higher than normal concentrations of hydrocarbons, trace metals, or toxicants. Reduction or the elimination of stormwater pollutants can be achieved by implementing “operational source control BMPs” including good housekeeping, employee training, spill prevention and cleanup, preventive maintenance, regular inspections, and record keeping.
44. The City has elected not to pursue the option of offsets.
45. The City has elected not to pursue the option of offsets.
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51. The City has elected not to pursue the option of offsets.
52. The City has elected not to pursue the option of offsets.

53. There are no other exceptions to the performance standards, other than off-site mitigation and payment in lieu, being implemented or that will be implemented during the permit cycle.
54. The Applicant will submit final construction plans that have been prepared under the direction of, and sealed by, a Licensed Professional Engineer, Professional Surveyor or Landscape Architect with a completed Stormwater Management Plan application form. The City of Grand Ledge will review the plans for adequacy of stormwater management design to ensure that the proposed stormwater drainage system has the capacity to handle all contributing flow without diminution of the existing off-site natural drainage patterns.
55. The developer should first submit, and receive approval of, preliminary plans. Once the preliminary plans have been approved they may then submit final construction plans. The City of Grand Ledge will review the plans for adequacy of stormwater management design. The City of Grand Ledge will attempt to review these plans in the shortest possible time. Once the final plans and Stormwater Management Concept Plans are approved the Stormwater Management approval will be issued.
56. The Post-Construction Stormwater Control Manual, Chapter 2, Section 7.1 states that a plan and a proposed schedule for the perpetual maintenance of the complete storm drainage system must be submitted with the final construction plans. The City of Grand Ledge will review all plans to determine whether the developer meets the performance standards.
57. A plan and a proposed schedule for the perpetual maintenance of the complete storm drainage system must be submitted for all new developments. It should be indicated who will be responsible (i.e. municipality or homeowners' association) for the maintenance. If the homeowners' association will be responsible for the system, the subdivision deed restrictions must have a section indicating such responsibility.
58. In accordance with the requirements of its NPDES Phase II Stormwater Permit, the City of Grand Ledge must ensure that the owners of property undergoing development (the Owners) are required to sign an agreement guaranteeing that the stormwater facilities designed for their site will be maintained as long as the property remains in the approved state of development. The maintenance covenants must cover all stormwater management facilities including related structural and non-structural components that are submitted for approval on a site development plan.
59. The City of Grand Ledge Public Service Department or its representatives may conduct periodic inspections for all stormwater practices constructed as part of the approved BMP construction plans. All inspections will be documented in writing. The inspection shall document maintenance and repair needs and discrepancies from the stormwater maintenance agreement and stormwater maintenance plans.

If it has been found by the City of Grand Ledge Council, following notice and an opportunity to be heard by the property owner, that there has been a material failure or refusal to undertake maintenance as required under the ordinance and/or as required in the approved maintenance agreement, the Public Service Director shall then be authorized, but not required, to hire an entity with qualifications and experience in the subject matter to undertake the monitoring and maintenance as so required, in which event the property owner shall be obligated to advance or reimburse payment for all costs and expenses associated with such monitoring and maintenance, together with a reasonable administrative fee.

The maintenance agreement shall be binding on all subsequent owners of land served by the stormwater BMPs and shall be recorded in the office of the County Register of Deeds before the approval of the City of Grand Ledge Council goes into effect.

Pollution Prevention and Good Housekeeping Program

60. Applicant-Owned or Operated Facilities and Stormwater Structural Controls:

- A. Administration buildings (1)
- B. Airport (not within watershed) (1)
- C. Cemeteries (1)
- D. Equipment storage and maintenance facilities (1)
- E. Parks (3)
- F. Public parking lots (6)
- G. Public works yards (1)
- H. Salt storage yards (1)
- I. Composting facilities (1)
- J. Fire Stations (1)
- K. Libraries (1)
- L. Recycling facilities (1)

Applicant-Owned or Operated Structural Stormwater Controls:

- A. Catch basins (1,097)
- B. Detention basins (4)
- C. Pump stations (3 sanitary pump stations, 0 stormwater pump stations)
- D. Porous pavement (1)

61. Updated storm sewer system maps are available at the City of Grand Ledge Public Service Building or Eng., Inc. located at 13253 Lawson Rd, Grand Ledge, MI 48837 and 4063 Grand Oak Dr, Suite A109, Lansing, MI 48911, respectively. The maps are also attached to the end of this SWMP in Appendix D.

62. Updates to the Municipal Facility and Structural Stormwater Control Maps will take place at the end of each year and will reflect any added/removed facilities and stormwater controls.

63. Each facility will be evaluated by the City of Grand Ledge for the potential to discharge pollutants to the surface waters of the state. New facilities and structural stormwater controls will be evaluated for the potential to discharge pollutants prior to construction and added to the Municipal Facility and Structural Stormwater Control Maps.

The following factors will be considered when evaluating each facility:

- A. Amount of urban pollutants stored at the site (e.g., sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
 - B. Identification of improperly stored materials.
 - C. The potential for polluting activities to be conducted outside (e.g., vehicle washing).
 - D. Proximity to waterbodies.
 - E. Poor housekeeping practices.
 - F. Discharge of pollutants of concern to impaired waters.
64. The following list of facilities has been prioritized based on potential to discharge pollutants to surface waters of the state using the criteria mentioned above.

High Priority:

- A. Grand Ledge Public Service Garage
- B. Salt storage facility (part of the Public Service Garage)

Medium Priority:

- A. Recycling facilities
- B. Composting facilities

Low Priority:

- A. Administration buildings
- B. Cemeteries
- C. Parks
- D. Public parking lots
- E. Fire Station
- F. Library

65. See the attached Standard Operating Procedure for the Grand Ledge Public Service Garage in Appendix C.

66. Below is a list of significant materials stored on-site that could pollute stormwater:

- A. Diesel Fuel: Fuel is stored in an above ground, steel, 500 gallon tank. The potential for this pollutant to discharge to stormwater includes spillage of fuel during filling of the storage tank, spillage of fuel during refueling of equipment, leaks from the storage tank, leakage from the dispensing equipment and limited leakage of fuel from vehicles and equipment.

- B. Motor Oil: A maximum of 300 gallons of motor oil is stored inside the DPS Maintenance Garage Building in 30 or 55 gallon steel drums. The potential for this pollutant to discharge to stormwater includes spillage of oil while transferring to a container during vehicle maintenance operations, leaks from the storage drums and limited leakage from vehicles and equipment.
 - C. Waste Oil: Used waste oil is stored inside a 235-gallon polycarbonate tank located inside the Waste Oil Storage Shed. The potential for this pollutant to discharge to stormwater includes spillage of oil while transferring from a container to the tank after vehicle maintenance operations, transferring the waste oil from the storage tank to a tank truck for removal from the site and leaks from the storage tank.
 - D. Other Vehicle and Engine Fluids: Fluids such as hydraulic fluid, coolants, solvents and degreasers associated with maintenance of vehicles and equipment also has the potential to make its way into the stormwater.
 - E. Road Salt: A maximum of 1,200 cubic yards of road salt is stored inside the Salt Storage Building. The potential for this pollutant to discharge to stormwater includes spillage onto the gravel surface while unloading trucks and spillage onto the gravel surface while loading trucks.
67. In order to minimize the potential for pollutant runoff of the materials mentioned above, a number of good housekeeping practices have been implemented at the Public Service Garage. All materials are first stored in approved containers. Some materials are contained in their own storage building away from floor drains and other points of access into the storm sewer system as well.
68. The City of Grand Ledge will perform a monthly inspection of the Public Service Garage site to ensure all structural and non-structural stormwater controls are in place and performing as expected. This includes making sure the storage containers for the materials identified are structurally sound and not leaking.
69. A site inspection will be performed at all sites with the high potential for pollutant runoff. Inspections include an inspection of all structural stormwater controls and a review of non-structural stormwater controls to prevent or reduce pollutant runoff. An inspection shall be performed at least once every six months.
70. Facilities identified as having a medium or low potential for pollutant runoff will also use BMPs to prevent or reduce pollutant runoff. Parking lots will be swept a minimum of three times per year to help control the amount of sediment and pollutants entering the stormwater through runoff.

Medium Potential Facilities:

A. Compost Facility

This facility accepts woody debris and leaves. It is open Wednesday afternoon and Saturday, and monitored by City Staff to ensure that no polluting materials are deposited.

B. Recycling Facility

Adjacent to the Compost Facility, the Recycling Facility is open daily and monitored by City staff. It is locked nights. On Wednesday afternoons and Saturdays, Styrofoam, household batteries and CFL bulbs are accepted and stored indoors. Food wastes, mercury thermometers, automotive batteries and the like are not accepted. The site is cleaned of polluting materials on a daily basis.

Low Potential Facilities:

- A. City Hall
- B. Cemetery
- C. Parks
- D. Public parking lots
- E. Fire station
- F. Library

The above facilities are prohibited from storing polluting materials outside. The Public Service Director and staff have been trained in good housekeeping practices and visit these facilities daily. Dumpsters are monitored for leakage and replaced as necessary. All Public Service staff are required to report any violations to the Public Service Director.

71. Public Service staff have begun keeping records of catch basin cleaning locations and frequency. The volume of debris removed is also being tracked and will be used to determine the frequency of future cleanings. Also being taken into account are public comments regarding catch basins with poor performance. At the end of year three the City of Grand Ledge will reprioritize the catch basins based on their findings.
72. A map showing the catch basin priority levels is attached in Appendix D. The catch basins are broken into three different priority levels; level one, two and three. Level one is high priority, level two is medium priority and level three is low priority. Level one catch basins will be inspected in year one of the permit cycle, level two catch basins will be inspected in year two of the permit cycle and level three catch basins will be inspected during year three of the permit cycle. These priority levels may change based on inspections and public comments at the end of each year.
73. Catch basins will be routinely inspected, cleaned and maintained to ensure proper performance. Cleaning methods will include ensuring accumulated pollutants will not be discharged during cleaning and are removed prior to discharging to surface waters of the state. The volume and type of debris removed will be tracked during inspections as well. Appendix D contains a map with three sections of the City where catch basins are cleaned on a rotating, 3-year basis. Based on past experience, catch basins do not become 50% full within this period. If it is found during the cleaning cycle that basins are more than 50% full, the frequency will be adjusted. The City cleans basins using City staff and a City owned vector truck.
74. All materials removed from catch basins will be disposed of appropriately. If the quality of the removed debris is in question, the liquids will be transported to the wastewater treatment plant and the solids will be transported to the Granger landfill. The City catch basins are cleaned using a City owned vector truck. The liquids are decanted and

discharged to the POTW. The solids are dried at the POTW, and later hauled to a licensed landfill. The City DPW staff maintains a log of the material hauled to the landfill by date and quantity.

75. Structural stormwater controls other than catch basins will routinely be inspected twice a year or more frequently if warranted. Inspection forms will be filled out during all inspections and kept on file by the City of Grand Ledge. Debris removed from structural stormwater controls will be treated the same as those removed from catch basins. There are currently five (5) structural BMPs that are inspected biannually (at a minimum):

Willis Industrial Park Detention
Meadow Woods Detention
Ledges Commerce Park Detention
DPW Containment Berm
Composting Site Containment Berm

At each inspection, a standard form is filled out which includes an Action Required question, description of Action Required, Follow Up Date and Follow Up Action Taken. If there are immediate concerns, such as a breach of a berm requiring immediate action, City staff will proceed with repairs. General maintenance will be performed within 30 days. The forms will be reviewed on an annual basis, Follow Up Action verified and included in the Annual Report.

If there are persistent, reoccurring problems the City will follow up with redesign and reconstruction – according to the City’s purchasing policies.

See attached City of Grand Ledge Structural BMP Inspection Form, Attachment #6 to this letter and Appendix E of the SWMP.

76. Where a site will discharge its stormwater directly to the Grand River or directly to a County or Inter-county Drain, the developer must comply with the City of Grand Ledge’s Post Construction Stormwater Requirements as a minimum, as well as the requirements of the DEQ and Drainage Boards. During site plan review, construction plans will be checked to ensure new developments are being designed and implemented in accordance with the Post-Construction Stormwater Control Manual.
77. Below is a list of the operation and maintenance activities performed by the City of Grand Ledge and an assessment of all pollutants that could be discharged from each, as well as the BMPs being implemented to prevent or reduce pollutant runoff:

A) Road, Parking Lot, and Sidewalk Maintenance: Maintenance on roads, parking lots, and sidewalks will minimize the potential for pollutant runoff. By ensuring that the materials used for repairing potholes, sidewalks and curbs and gutters stay contained within the area of work the City of Grand Ledge can be sure materials do not run off and make their way into the stormwater system.

- B) Deicing Roadways: The City of Grand Ledge will use other means besides placing road salt in areas adjacent to sensitive streams and rivers. By minimizing the use of road salt near streams and rivers, the amount of road salt entering waterbodies can be reduced significantly. Additionally, snow plows will take care in not piling plowed snow near rivers and streams. This will ensure the runoff created by warmer weather will not run directly into streams and rivers without first passing through a vegetated buffer.
78. The City of Grand Ledge has implemented a sweeping schedule for the sweeping of all City owned parking lots to reduce the chances of sedimentation and other possible pollutants from entering the MS4. At a minimum, all City parking lots will be swept three times per year during dry weather. The entire town is swept with a street sweeper twice a year, once in the spring and once in the fall. The heavily trafficked downtown streets including: Bridge Street, and East & West Jefferson Streets, are swept on two additional occasions, in June and August. This process will be reviewed annually. A daily log is maintained with streets/blocks swept, total cubic yards collected and disposal site recorded.
79. All City owned parking lots and other impervious surfaces are shown on the Municipal Facility and Structural Stormwater Control Maps. The entire town is swept with a street sweeper twice a year, once in the spring and once in the fall. The heavily trafficked downtown streets including: Bridge Street, and East & West Jefferson Streets, are swept on two additional occasions, in June and August.
80. All sweeping equipment will be used according to the manufacturers' operating instructions to protect water quality. The sweeper will be maintained and adjusted on an on-going basis, and according to manufacturer's requirements. Annually, the Public Services Director will review the quantity of material picked up and compare it with previous years.
- All sweeping equipment will be used according to the manufacturers' operating instructions to protect water quality.
- The City's street sweeper is a 2005 Elgin Broom Beat Series H commercial sweeper. The use is recorded in a daily log (see 78 above).
- Leaves are collected in the fall using a City dump truck with a vacuum attachment. The leaves are hauled to the City composting facility and once composted, are available to residents and commercial landscapers.
81. Materials collected during sweeping procedures will be treated in the same manner as those collected from catch basins. The liquids will be transported to the wastewater treatment plant and the solids will be transported to the Granger landfill. The measurable goal will be tracking the amount of solids transported to Granger.

82. The City uses a licensed commercial applicator to fertilize one site within the City, the downtown ball field. Annually, the Public Service Director will meet with field maintenance personnel on-site to verify proper application rates, weather limitations and proximity to water courses. City of Grand Ledge personnel do not apply pesticides, the City contracts with licensed professionals.

At the start of each season, the Public Service Director will request a copy of any licenses for contracted applicators and maintain a copy in the City files.

83. Training on the pollution prevention and good housekeeping program will be provided for existing staff and new hires. Existing staff will be trained once during the permit cycle at minimum and new hires will be trained within the first year of their hire date. Training will be tailored to the needs of the City of Grand Ledge and will include training videos provided by the GLRC.
84. All contractors and developers who will perform construction activities within the City of Grand Ledge will comply with all pollution prevention and good housekeeping BMPs as appropriate. The City of Grand Ledge or its representatives will perform construction inspection to ensure the contractor's activities are in compliance with the pollution prevention and good housekeeping BMPs. All contracts will also include the following language where appropriate:

“The Contractor is aware of, and will follow, all good housekeeping procedures will respect to Stormwater Management. Specific detail are included in the Stormwater Management Plan. The Contractor is not limited to these practices and is expected to notify the City when there is the potential for any pollution not specifically addressed by the Stormwater Management Plan.”

- 85-88. Not applicable.