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Section VII. SWMP

1. Enforcement Response Procedure (ERP) - The City currently has a complaint response system in place that forwards complaints to the OCHD. The City has established a reliable system to receive and investigate citizen reports regarding suspicious discharges from storm sewer outfalls, failed OSDS, waste dumping, construction sites, etc. The reporting system includes:

- Telephone complaint system with emergency number for non-business hours;
- Complaint documentation and tracking system;
- Follow-up notification to reporting citizen to inform them what corrective actions have been or are being taken.

When the City of Madison Heights receives complaints regarding illicit discharges, the City investigates each suspected connection as outlined above and takes appropriate action(s). The City will handle all ordinance violations as they are identified (by OCWRC, residents, staff, etc.).

The City's Code of Ordinances (Appendix D) that regulates enforcement regarding storm sewers, sanitary sewers, and illegal dumping into waters of the state are attached with this application.

Enforcement actions relating to post-construction controls will be identified in the Oakland County Stormwater Rules, as revised.

Chapter 11 – Excavation and Landfills (Section 11-35); Chapter 23 – Streets and Sidewalks and Other Places (Section 23-83) and Chapter 29 – Water Supply and Sewage Disposal Systems (Section 29-96, paragraph a, b) provide details on enforcement.

Additional ERP information can be found in the Enforcement Response Procedure SOP (Appendix C) and Pollution Incident Prevent Plan (PIPP), Appendix J.

The Lamphere Schools and Madison District Public Schools administer and enforce the City ordinances in regard to illicit discharges, connections, and illegal dumping.

2-3. Public Participation Plan (PPP) - The Public Participation Plan (PPP) for the Red Run Subwatershed was completed in 2010. The City and its consultant provided input on this plan.

Once the new SWMP is developed and approved by MDEQ, the City, The Lamphere Schools, and Madison District Public Schools will post this on our website for public comment during the duration of the permit cycle. Our consultant, Johnson & Anderson, Inc., will be listed as the primary contact (with associated email and phone number) to answer any questions relating to the SWMP. The City, with coordination from our consultant, will review the SWMP every 3-5 years.

4-6. Public Education Program (PEP) - See Table 1 for a prioritization list of PEP activities. The City and its consultant reviewed the PEP topics and prioritized these based on current City activities and City needs. For instance, the City has few open drainage courses and only 1 private OSDS in the City; therefore riparian management and OSDS maintenance are considered a low priority.

IDEP Fact Sheets (Appendix F) were distributed at various GH/IDEP Training events and were also distributed to field staff in Fall 2014. The City has been proactive in recent years to update the City website and bi-annual newsletters with stormwater management information. The City will continue

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these efforts. The Fact Sheet has also been distributed to The Lamphere Schools and Madison District Public Schools field staff.

The website and information distributed at City Hall are very cost-effective ways of educating the public – we will continue to implement these as well.

We distribute educational materials at Red Oaks Nature Center as well.

The Lamphere Schools and Madison District Public Schools post stormwater related information on their websites and posted SEMCOG 'Seven Simple Steps' posters at their schools.

We have distributed SOCWA and MGIA turf management information to our lawn care provider, United Lawnscape. We will encourage them to participate in future training opportunities held by SEMCOG, MDEQ, etc.

We feel the public education program has been successful to date.

We will work with SEMCOG, the CRWC, and schools on the PEP effectiveness process. An online survey was developed by the CRWC, SEMCOG, and others to gain input on stormwater management from SE Michigan residents and employees. The survey data was reviewed by CRWC, SEMCOG, OCWRC, and all applicable entities in 2014. An additional regional survey may be developed in the near future.

The progress report will be reviewed biennially and changes will be made to the PEP portion based on:

- PPP Survey results
- Increase in stewardship participation
- Increase in resident inquiries regarding lawn care, riparian management, etc.
- Increase in MGIA 'Healthy Lawn Care Program for Watershed Protection' participating lawn care providers
- Decrease in trash/debris found in local waterbodies

See the attached Collaborative Public Education Plan (Appendix E) for more information.

7-17. Illicit Discharge Elimination Program (IDEP) – GIS mapping of the storm sewer system is currently being updated. Lamphere Schools maps are located at Lamphere High School, and Madison District Public Schools maps are located at their administration building and available upon request.

The City will NOT be working collaboratively on any of the BMPs in the IDEP. The Districts will be working on their own to comply with the IDEP BMPs.

We have diligently been working on the City storm sewer maps to properly identify the City-owned outfalls and discharge points. Of the 49 City-owned outfalls, we have set up a tiered approach for prioritizing our outfalls. Eighteen (18) of these outfalls are Priority 1 discharge points.

Our new prioritizations are based on our data from these two rounds of investigations and coordination with WRC. We prioritized our discharge points based on:

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- amount of flow in the pipe;
- sediment/mineral deposits/I/I;
- indications of illicit discharges or connections – oil sheens, sewage odors;
- outfalls related to WRC investigations and sampling; and
- upstream/downstream discharge points collecting stormwater from multiple upstream sources

The Districts will NOT be prioritizing their outfalls, but will monitor and perform dry-weather screening every five (5) years, which began in Summer 2016. Lamphere Schools currently has eight (8) discharge points that discharge to City storm sewer. Madison District Schools has five (5) discharge points that discharge to City storm sewer.

All priority and non-priority discharge points belonging to the City were investigated in Fall 2018. All 49 points will be dry-weather screened every 5 years. The 18 priority points will receive special attention and may be inspected and sampled 2-3 times during the permit period. Several points upstream or downstream are also being investigated and sampled by WRC staff. We are currently coordinating wet weather and dry-weather sampling efforts with WRC in an effort to track human and non-human E. coli sources.

See the Outfall and Discharge Points Table for a list of these City prioritized outfalls. Source investigations may be performed on additional outfalls, if there is dry weather flow and it is not obvious that the source is groundwater. MS4 to MS4 discharge points are included in the list of outfalls.

Dry weather inspections are conducted if no rain/precipitation event has occurred for a minimum of 48 hours. If flow is observed in the sewer at that time, it may be attributed to sewage, cooling water, sump pump discharge, infiltration from ground water sources, or runoff from potable water sources.

The City and Districts may be able to locate the source of an illicit connection/discharge solely through visual observation of flow in the storm sewer at manholes. Odor, color, turbidity, bacteria growth, quantity of flow, etc., may lead to the source of a problem without additional sampling. Upon the discovery of an illicit connection, the City and Districts would make arrangements to immediately sever this connection and connect it to the proper sanitary line.

All storm outfalls that are discharging during dry weather are investigated further by upstream visual inspection, re-inspection at a later date, televising, smoke/dye testing, as-built pipe schematic review, sampling, or other investigation as needed to determine the nature and source of the flow.

1. Televising - The City and Districts may elect to televise those storm sewers that have suspicious flows to identify pollutant sources that cannot be located through simple visual observation and/or sampling. For example, the City and Districts may determine through visual observation and/or sampling that an illicit connection exists between two specific manholes. Video inspection of the stretch of storm sewer between these two manholes could be used to isolate the exact source of the connection/discharge.
2. As-built pipe schematic review - Where available, the City and Districts utilize as-built pipe schematic drawings as a tool to determine the source of an illicit connection/discharge.
3. Dye or smoke testing - The City conducts physical inspection of commercial and/or residential facilities as needed to verify suspected illicit connections that are detected through visual observations/sampling of yards, outfalls and manholes. As necessary, facility

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inspections include dye or smoke testing of suspect facility plumbing fixtures to determine if the fixture discharges to the sanitary sewer or to the storm sewer. All facility inspections are documented.

4. Sampling - Investigation of dry weather discharges are prioritized based on the number of discharges identified as well as other factors including location, volume of flow, and suspected contaminants based on color, turbidity, or odor. If flow is observed during the dry weather outfall inspections and visual observations do not lead to a source, the City and Districts will sample the flow for pollutant parameters typically found in illicit connections within 1-3 business days of discovery. Sampling can rule out some dry weather discharges such as groundwater. The sampling will typically begin at the outfall and continue upstream from manhole to manhole until a source is found. The choice of sampling parameters will depend on several factors including:
    - Location of the storm outfall (i.e., in residential or commercial area);
    - Turbidity and color of discharge which could distinguish between an illicit discharge from a commercial establishment versus a residence;
    - Odor associated with discharge such as petroleum odor, or raw sewage odor.

For source investigations outside of field screening, outside of priority areas, and complaints, the City and Districts respond by site investigations. In addition, possible illicit discharges or connections may be identified by field staff while out in the field. City and District staff visit the site, takes photo documentation, and samples if warranted. The field investigation is to verify if follow-up source investigations or sampling is needed. If necessary, illicit discharges and connections are traced to their source and eliminated within 60-120 days of notification depending on the severity of the issue. The City and Districts typically perform site investigations within 24 hours after receiving the complaint.

The City and Districts will report any identified significant illicit discharges including those of untreated or partially treated sewage to the MDEQ within 24 hours after the discharge begins or is discovered and of corrective actions being taken to eliminate the connection/discharge. The reports will cover the information required by the General Permit and Certificate of Coverage.

The City and Districts analyze the samples for some or all of the following parameters:

Parameters	Found In	Potential Source(s)
Escherichia coli	Sewage	**Human or Animal Waste**
Surfactants	Soap, Emulsifiers	**Industrial/Commercial/ Residential**
Ammonia	Sewage, Fertilizers, Industrial Chemicals	**Industrial/Residential/ Agricultural**
Nitrates	Sewage, Fertilizers, Industrial Chemicals	**Fertilizers/ Industrial/ Residential/Agricultural**
Nitrites	Sewage, Fertilizers, Industrial Chemicals	**Fertilizers/ Industrial/ Residential/Agricultural**
Conductivity	Industrial Waste, Sewage, Salt	**Industrial/ Residential/ Agricultural**
Total Dissolved Solids	Industrial Waste, Sewage, Salt	**Industrial/Residential/ Agricultural**

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Temperature	Cooling Water, Sewage	**Industrial/ Residential**
pH	Acids and Bases	**Industrial/ Residential**

Indicator parameters (pH, temperature, detergents, ammonia) are utilized if the source is not identified during the field observation. Additional parameters have been tested, such as PAH and DRO, when applicable.

The City (in coordination with the school districts) will submit a biennial progress report to MDEQ summarizing the activities completed including illicit connections and discharges City and Districts identified and corrected. For significant illicit discharges, the City and Districts will list the pollutants of concern, the estimated load and volume discharged, and the locations of the discharge into the system and to the waters of the state.

For spills, Department of Public Services (DPS) and District staff visit the site and take a spill kit out to contain the spill and cover nearby catch basins. For larger spills and spills directly into waters of the state (oil sheens, etc.), staff will contact the PEAS hotline. Detailed spill response information is provided in the Pollution Incident Prevention Plans (PIPP), Appendix J, Page 12-14.

In the event of a hazardous spill, the City would require the responsible party to begin rectification within 24 hours or upon discovery dependent on the severity. If action is not taken within 24 hours, the City would make the necessary reparations and invoice the responsible party. Dependent upon the situation, the Oakland County Water Resources Commissioner's Office and/or the City Fire Department would be notified. The incident would be written up (on our Spill Notification & Complaint Reporting Form) and into our biennial report to the MDEQ

18-19. IDEP Training and Evaluation - All City field personnel (Public Services staff) and District field staff receive IDEP training at least once per permit cycle. New hires are trained within the first year of their hire date. The City and School Districts have utilized both SEMCOG and our stormwater consultant for IDEP training. Training topics are: stormwater awareness, identifying illicit discharges or connections, procedures for responding to spills, and failing OSDS identification and enforcement. Staff received face-to-face training in 2013, 2015, 2016, and 2018. Video links were also viewed in 2017.

The City feels that dry-weather inspections, responding to complaints, and staff investigations are effective ways of implementing the IDEP; although not extremely cost-effective. The City discovered and eliminated 2 illicit connections in 2011. IDEP Fact Sheets (Appendix H) are distributed to City and school staff.

Evaluation Methods

- Staff Training frequency
- Number of illicit discharges and connections eliminated over the permit cycle
- IDEP Notification successes/failures
- Number of resident/business complaints received over the permit cycle
- Evaluation of program efficiency
- Changes in receiving water quality data over time

Evaluation methods will be re-evaluated biennially during the progress report submittal process.

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20-27. Illicit Discharge Ordinance - The City's Code of Ordinances (Appendix D): Chapter 17 – Miscellaneous Offenses and Provisions, Section 17-23 and 17-28; Chapter 23 – *Sidewalks and Streets and Other Public Places*, Section 23-81 through 83; Chapter 29 – *Water Supply and Sewage Disposal Systems*, Section 29-91, 29-93 (1, 4, 5); and Zoning Ordinance, Section 10.514 (F) (2, 4, 5) are attached to this application for your reference.

Section 10.514 (F) (1-2) prohibits non-stormwater discharges.

The City and school districts have identified non-stormwater prohibition exceptions, such as firefighting activities and water line flushing, etc. (as long as they are identified as not being significant contributors to violations of water quality) in the Storm Water Management Ordinance, which is slated to be adopted by City Council by January 2019.

Section 10.514 (F) (1-2), Section 17-23, Section 17-28, Section 23-81, Section 29-91, Section 29-23 ((1, 4, 5)) regulate contribution of pollutants to the MS4.

Section 17-23, Section 17-28, Section 23-81, Section 29-91, Section 29-23 ((1, 4, 5)) prohibit illicit discharges, including illicit connections and the direct dumping or disposal of materials into the MS4.

The Storm Water Management Ordinance (scheduled to be adopted by City Council by January 2019) allows the City to perform inspections, investigations, and monitor suspected illicit discharges.

The Enforcement Response Procedure provides a schedule on responding to potential illicit discharges and connections and goals for elimination, as well as a tracking report form.

28-32. Construction Stormwater Runoff Control - The City and Districts rely on the Oakland County Water Resources Commission to administer and enforce the SESC program within the City's jurisdiction.

Chapter 11, Article II – *Soil Removal* and Chapter 21 ½ – *Soil Erosion and Sedimentation* are attached to this application.

Chapter 21 ½ – *Soil Erosion and Sedimentation* requires a SESC permit to be issued for all construction activity disturbing 1 acre or more in size.

When a SESC complaint is received, City staff contact OCWRC for follow-up. If the developer/owner does not remedy the SESC issue within 14 days, the City and/or OCWRC then contacts MDEQ. The Districts handle complaints internally.

All construction within the City and Districts limits requires a building permit. If a site is within 500 feet of a waterway and/or one acre or more in size, then a SESC permit is to be submitted with the building permit application. Building permits are issued after the SESC or Notice of Coverage permit is provided.

33-34. Ordinance or Other Regulatory Mechanism - It is anticipated that the OCWRC will update their Engineering Standards by Fall 2015 due to their upcoming MS4 post-construction requirements. The City will adopt by reference these standards (with some minor changes in the best interest to the City) by December 2015 to reflect the OCWRC standards.

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Lamphere Schools and Madison District Public Schools adhere and administer the City's ordinances and standards. A copy of the Lamphere Schools resolution is attached to Appendix D. Madison District Public Schools will have their resolution available by October 1.

37-39. Water Quality Treatment Performance Standard - It is anticipated that the OCWRC will update their Engineering Standards by Fall 2019 due to their upcoming MS4 post-construction requirements. The City will adopt by reference these standards (with some minor changes in the best interest to the City) within 120 days of finalization of these standards to reflect the OCWRC standards.

40-41. Channel Protection Performance Standard - It is anticipated that the OCWRC will update their Engineering Standards by Fall 2019 due to their upcoming MS4 post-construction requirements. The City will adopt by reference these standards (with some minor changes in the best interest to the City) within 120 days of finalization of these standards to reflect the OCWRC standards.

42-43. Site Specific Requirements - It is anticipated that the OCWRC will update their Engineering Standards by Fall 2019 due to their upcoming MS4 post-construction requirements. The City will adopt by reference these standards (with some minor changes in the best interest to the City) within 120 days of finalization of these standards to reflect the OCWRC standards.

44-52. Off-Site Mitigation and Payment in Lieu Programs - The City does not currently have an ordinance or regulatory mechanism that meets the optional requirements, as identified in questions 44-53. The City will not be pursuing this option.

53-55. Site Plan Review - Section 10.514 and 10.515 provide information on the Site Plan Review process. All site plans are reviewed by the Planning Commission and /or the Engineering Consultant.

Site Plan Review Procedures – See Sections 10.514 and 10.515 for site plan review and approval procedures.

Language will be integrated to the site plan review checklist to require long-term O&M plans in place for developments and redevelopments. This will be in place by April 2019.

Madison District Public Schools and Lamphere Schools inspect their detention basins every five (5) years. Catch basins owned by both Districts are cleaned/inspected by City staff every two (2) years.

All site plans are reviewed by the Planning Commission and/or City Engineer. The Districts utilize their engineering consultant for site plan reviews.

56-59. Long-Term Operation and Maintenance of BMPs - Language will be integrated to the site plan review checklist to require long-term O&M plans in place for developments and redevelopments. This will be in place by April 2019. The language will allow the City to: inspect the structural or vegetative BMP, perform the necessary maintenance or corrective actions neglected by the BMP owner or operator, and tracks the transfer of operation and maintenance responsibility of the BMP.

60-62. Municipality Facility and Structural Stormwater Control Inventory - See Appendix H for a complete list of municipally-owned and district-owned facilities and structural controls. Storm sewer maps are provided, which identifies all: catch basins and combined sewer systems areas within the City's and schools' jurisdiction. As-builts of all City-owned facilities are located at the City Hall. District maps are located at the administration buildings.

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As new structural controls are identified and built, the current map will be revised within 90 days of identification.

63-70. Facility-Specific Stormwater Management – The City-owned and District-owned facilities (shown in Appendix H) were assessed during the application process. The following factors were considered during the assessment: 1) information currently identified in the Storm Water Pollution Prevention Initiative (SWPPI); 2) Pollution Incident Prevention Plan (PIPP) – Appendix J; 3) amount of urban pollutants stored at the site; 4) identification of improperly stored materials; 5) the potential for polluting activities to be conducted outside; 6) proximity to waterbodies; and 7) poor housekeeping practices.

The list will be revised within 30 days of determining a discharge from a new facility or when a major spill occurs at either of these facilities.

Police vehicles are washed at a commercial facility, and fire station vehicles are washed inside the fire station. All wash water waste is sent to the sanitary sewer system. DPS vehicles and equipment are washed inside the Public Services Building. Fleet vehicle maintenance, as well as police and fire vehicles are maintained at the Public Services Building.

All vehicles and equipment are washed indoors at Lamphere Schools. Lamphere Schools utilizes Arch Environmental for monthly UST inspections. Bi-annual inspections are performed by a Storm Water Operator. Bussing is contracted out for Madison District PS and the only equipment they have on hand is lawn mowers, which are cleaned on the lawn.

Public Services Building, Good Housekeeping – An environmental assessment was performed by SEMCOG in 2010 and a Pollution Incident Prevention Plan (PIPP) was later developed. The PIPP identifies the significant materials that are located at the DPS complex, as well as provides good housekeeping information. A PIPP was also developed for Lamphere Schools, as they have a fueling station and store used oil. Madison District Public Schools does not have a fueling station, and does not store oil or salt, therefore a PIPP was not developed for this district.

The liquid salt brine is located adjacent to the Maintenance Garage with secondary containment. The outdoor fuel storage tanks are double-walled. The outdoor materials are stockpiled inside concrete barriers. Chemicals stored indoors are located on shelving or containment units. Vehicles and equipment and outdoor dumpsters are inspected regularly for leaks. Spill kits (oil dry) are located inside and the building and outdoors near the fuel storage area. An interior floor drain (trench drain) is located inside the DPS building, which is connected to an oil/water separator. The salt dome area is inspected twice annually to ensure salt is properly contained.

Salt is not stored in bulk at MDPS – the City provides the District with salt for parking lots and sidewalks as needed. Some bags of salt are stored at the Districts during the winter season. Lamphere Schools stores some salt (during winter months) in a contained area, that is tarped.
Monthly routine site inspections are performed at the Public Services Building and recorded on inspection sheets. These inspections cover areas such as the: salt dome, indoor and outdoor materials storage areas, fuel areas, oil/water separator, and secondary containment.

Vehicles and equipment are washed indoors at the City DPS and Lamphere Schools in designated wash bays. City fire and police vehicles are washed by a commercial car wash facility or indoors. MDPS equipment (lawn mowers) are washed on the lawn (utilizing no soap).

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For medium to lower potential areas - Mowing practices are performed by City staff for parks only. All other City-owned areas including medians are mowed by a contractor. Fertilizing and herbicide applications are contracted out. Madison District High School and Lamphere High School parking lots are swept at least twice a year due to high traffic volumes. The Lamphere Schools Bus Garage complex is inspected twice a year by a Certified Storm Water Operator.

Lawn care information is provided on the City website and is periodically posted in the City bi-annual newsletter.

Lamphere Schools utilizes Tru-Green for pesticide and fertilizer applications and grub control in two areas. Madison District Public Schools utilizes a lawn care company for pesticide and fertilizer applications.

71-76. Structural Stormwater Control Operation and Maintenance Activities - All catch basins in the City are located in the Storm Sewer Map, which is attached to this application.

Catch basin investigations and cleaning are performed on a rotating basis; 1 District is cleaned annually (4 Districts in the City). Please see the Catching Basin Cleaning/Waste Disposal SOP for priority areas and more details.

The school district catch basins are cleaned twice per year by City staff. Priority is given to high traffic areas, such as the high schools and Maintenance and Transportation Complex at: 915 E. 11 Mile Road, 610 W. 13 Mile Road, and 31600 Agnello.

Catch basin waste is taken to the DPS complex to be dried, and then hauled away to a landfill for disposal. The drying bed area is inspected monthly by City staff and bi-annually by a Certified Stormwater Operator to ensure no runoff from the drying bed area enters the storm sewer system on site. The catch basin waste material is tested every 1-2 years prior to disposal to a landfill.

Privately-owned detention/retention basins are not maintained by the City; however language will be integrated to the site review plan process and site plan checklist to require maintenance in perpetuity.

Once new structural controls (oil/water separators, porous pavements, rain gardens, etc.) are installed, these controls will be inspected within one year of their installation and bi-annually thereafter.

School-owned retention/detention basins are inspected every 5 years.

The City owns and maintains one fuel station at the DPW facility. A spill kit is located just outside the Public Services building to clean up any fueling leaks or spills during the fueling process.

Underground and above ground fuel tanks are inspected monthly by a Class A operator and quarterly by a Class B operator (contracted out). The City has Class C operators on staff to handle daily activities on site. They are certified to operate fuel dispensing which occurs daily. Leak inspection reports are generated every week by an automatic tank gauging machine.

Underground fuel storage is provided at the Lamphere Schools. The tank is double-walled. Arch Environmental performs monthly UST inspections and the fuel storage area (as well as the entire fleet maintenance area) is inspected bi-annually by a Certified Storm Water Operator. Madison District

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Public Schools does not have a fuel storage area on site.

City-owned oil/water separators are cleaned annually. Fire station separators are either cleaned by a contractor or the City DPS. The Lamphere Schools-owned separator is inspected annually and cleaned out every 3-5 years by a contractor.

77-81. Municipal Operations and Maintenance Activities - The City, or schools do not own or maintain any bridges or unpaved roads. Potential pollutants from operations and maintenance activities include: sediment from parking lots and catch basins, fertilizers utilized on City-owned properties, salt utilized on parking lots and sidewalks, and fluids from vehicles and equipment.

Residential streets and parking lots are swept twice a month (see Garbage Pick-Up Days map for schedule/details). Residential streets are prioritized. Major streets are swept once per month. Street sweeping waste is dried at the Public Services facility, and then taken to a landfill for disposal. This waste is disposed of at least every 3 weeks.

The City sweeps both districts' streets and parking lots twice per year. NO streets are prioritized.

82. Managing Vegetated Properties – The City utilizes United Lawnscape for fertilization, weed control for all properties, medians, and ROW, and mowing (in medians, right of ways, and City Facilities). Lawn clippings are mulched into the lawn and mowing heights are kept at 2 ¾". Zero phosphorus, slow-release nitrogen fertilizers are used on all properties. Specific location information is identified in the attached contract with United Lawnscape.

Lamphere Schools utilizes Tru-Green for fertilization and pesticide applications. Grub control is applied in two areas. Mowing is performed in-house.

Madison District Public Schools and Lamphere Schools perform mowing in-house.

Lawn care information is provided on the City and districts' websites and is periodically posted in the City and schools' newsletters.

The City and districts review the contractors' credentials to ensure they are certified by the State of Michigan as an applicator for vegetated properties. During the growing season, the City and Districts will inspect their properties every other month to ensure that: fertilizers are being swept up from impervious surfaces and zero-phosphorus fertilizers are being utilized.

83. Contractor Requirements and Oversight - Specific requirements are identified in the Bid Specifications. The City's turf management contractors have received MGIA, SOCWA, and SEMCOG earth-friendly lawn care and fertilization information, including information on the Healthy Lawn Care Program for Watershed Protection.

84. Employee Training - All City field personnel (Public Services staff) and District field staff receive Good Housekeeping/Pollution Prevention training at least once per permit cycle. New hires are trained within the first year of their hire date. The City has utilized both the county agencies and Johnson & Anderson for Good Housekeeping and IDEP training. Training topics are: what is stormwater; how stormwater relates to maintenance and lawn care operations; materials handling and response; chemicals management; vehicle and equipment washing and maintenance; street and parking lot maintenance; salt storage and application; materials disposal and storage; landscape

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practices; and waterfowl management. The City and District staff have received training in 2013, 2015, 2016, and 2018.

City and School district field staff have also viewed Good Housekeeping and IDEP Training DVDs that are offered online.

85-88. Total Maximum Daily Load Implementation Plan – The Red Run Drain and Bear Creek have a Total Maximum Daily Load (TMDL) for E. *coli*. In 2006, MDEQ approved a TMDL for pathogens (*E. coli*), for Red Run Drain and Bear Creek.

The known sources of pathogens in the subwatershed include stormwater runoff from urban areas, illicit discharges and connections into the storm sewer system, sanitary sewer and combined sewer overflows, other wastewater treatment issues (e.g., septic systems). Suspected sources of pathogens include wildlife, pet waste, and possible sediment resuspension related to altered hydrology.

E. *coli* TMDL Priorities – The City and school districts have identified and prioritized the following ongoing and future activities to address TMDL pollutant reduction for E. *coli*:

1) Pet waste information is posted on the City and District websites and in newsletter articles. The City posts a stormwater display at City Hall each spring that provides pet waste and stormwater awareness information.
2) The City is currently coordinating dry-weather screening/sampling and wet weather sampling efforts with the OCWRC to address hot spots as identified by WRC over the last 3 years.
3) The City is a 2018 WaterTowns participant. We are currently looking into grant funding to implement green infrastructure at our Civic Center site and Civic Center Park.
4) The City will provide a GIS layer to the WRC of the storm sewers and outfalls/discharge points by Fall 2019.

Dry-Weather E. coli Sampling/Monitoring –

- Following dry-weather inspections (which occurred this fall 2018), wet weather water samples will be collected at 25% of the Priority 1 outfall/discharge points for E. *coli* analysis by Spring 2019. 2-3 samples will be collected over the permit period for each priority structure. Methods of effectiveness will be developed by Fall 2020.

- We are currently coordinating wet weather and dry-weather sampling efforts with WRC in an effort to track human and non-human E. coli sources. Dry-weather screening has begun. Sampling will begin in the coming weeks and wet weather sampling will begin in Spring 2019.

- WRC plans to perform CCTV inspections to eliminate E. coli sources along the GWK, Walker, and Red Run Drains.

These prioritized BMPs are based on:

- Previous dry-weather screening performed by City staff (i.e. abnormal odors, ;
- Previous dry-weather and wet weather screening performed by WRC staff;
- Historical dry-weather and wet weather sampling data; and
- Discussions with WRC on known ‘hot spots’.

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Measurable Goals (Updates will be provided in Progress Reports):

Enforcement Response Procedure – Proper tracking of complaints and spills. Timeframe: immediate.

Public Education Program – See goals identified in PEP.

Storm Sewer Map – Update the maps every 5 years as appropriate.

Illicit Discharge Identification & Investigations – Continue outfall dry-weather screening investigations every 5 years. Work with OCHD and MDEQ on IDEP issues. Timeframe: throughout the permit period. Work to reduce an illicit discharge or connection within 30 days of identification.

IDEP Training & Evaluation – Train ALL existing DPW and District field staff at least once throughout the permit period and all new hires within the calendar year of their hiring date.

IDEP Ordinances – Decrease in IDEP issues, Hotline complaints received by City, District, and County staff; improve water quality of the Clinton River over time. Timeframe: throughout the permit period.

Construction Stormwater Runoff Control – Continue to work with OCHD and MDEQ as appropriate to address all SESC issues in the City and on District property. Timeframe: throughout the permit period.

Site Plan Review – Number of site plan reviews performed during the permit period. Increase in stormwater BMPs installed in the City and on District properties during the permit period.

Long-Term Operation & Maintenance of BMPs – Continue to require maintenance agreements to increase O&M on structural and non-structural BMPs throughout the City.

Municipal Facility & Structural Stormwater Control Inventory – Update inventory information in progress reports as appropriate (i.e. facilities are installed or changed ownership; changes in ranking; etc.).

Facility-Specific Stormwater Management – Conduct monthly and bi-annual facilities inspections at the DPW facility and Bus Garage at Lamphere Schools and correct deficiencies as needed. Review the PIPP annually and update as appropriate.

Structural Stormwater Control Operation & Maintenance Activities – Number of catch basins cleaned annually. Inspect new City-owned and District-owned structural and non-structural controls within 1 year of their installation.

Municipal Operations & Maintenance Activities – Provide updates on street and parking lot sweeping and disposal methods.

Managing Vegetated Properties – We will continue to utilize no-phosphorus fertilizers, mow turf at 3”, and leave a buffer along waterways.

Employee Training – Train ALL existing DPW and District field staff at least once throughout the permit period and all new hires within the calendar year of their hiring date.

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Contractor Requirements & Oversight – Continue to provide directives in the bid specifications regarding proper good housekeeping and pollution prevention of BMPs and stormwater management; provide lawn care updates in progress reports.

TMDL Implementation – Conduct dry-weather sampling by Fall 2019 to determine potential E. *coli* sources and causes.