

**Ohio Turnpike Commission  
Storm Water Management Plan**

**Authorization for Small Municipal Separate Storm Sewer Systems  
to Discharge Storm Water under the National Pollutant Discharge  
Elimination System  
to the  
Ohio Environmental Protection Agency**

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## **A. Purpose of Permit and Summary of Requirements**

The Ohio Turnpike Commission (OTC) is seeking authorization for its Small Municipal Separate Storm Sewer Systems (MS4) to discharge storm water under the National Pollutant Discharge Elimination System (NPDES). In compliance with the provisions of the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.) and the Ohio Water Pollution Control Act (Ohio Revised Code 6111), discharges of storm water from MS4s (defined in Part 7 of this permit) are authorized by the Ohio Environmental Protection Agency (Ohio EPA) to discharge from outfalls to receiving surface waters of the state identified in their Notices of Intent (NOI) Application form on file with Ohio EPA. The primary objective of this requirement, outlined in *40 CFR Parts 9, 122, 123 and 124 "National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges"* issued by the USEPA in December 1999, is to require the development of a storm water management plan (SWMP) that addresses the six (6) minimum control measures set forth in the regulation. The Ohio EPA has designated the OTC as a non-traditional MS4.

The Ohio EPA issued the final permit requirements to meet the Phase II rule on December 27, 2002 which identifies six (6) minimum control measures that the OTC must address as compliance requirements associated with this program. They are as follows:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Run-off Control
- Post-Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention and Good Housekeeping for OTC Operations

In order to address the above six minimum control measures, the Ohio EPA requires the development of a Storm Water Management Plan (SWMP) that will address the six minimum control measures and issues a permit for storm water discharge. The document enclosed herein is being submitted to Ohio EPA to meet the aforementioned SWMP requirement.

## **B. Overview of OTC Phase II Storm Water System and Executive Summary**

The OTC has been identified as a non-traditional MS4 owner/operator by the Ohio EPA. The permitted facilities under the OTC's jurisdiction include approximately 56.9 miles of Interstate highway located in four Urbanized Areas across the state. A more complete description of the lane miles of highway and a summary of types of facilities can be found in Appendix 1 and 2. This SWMP is limited in scope to the drainage amenities for the Ohio Turnpike and its related support facilities located within the urbanized areas.

The primary objective of the U.S. EPA's *National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges* (Federal Register - 40 CFR Parts 9, 122, 123 and 124) is to require the development of a SWMP that will address the six (6) minimum control measures set forth in the U.S. EPA regulations. The SWMP will serve as the cornerstone for OTC's future water quality programs, will assist in complying with future water quality mandates from the U.S. EPA and other federal programs, such as the Total Maximum Daily Load (TMDL) program. The NPDES regulations are causing a fundamental shift in the focus of future highway storm water engineering/management from the simplicity of conveying run-off to the complexity of addressing water quality and quantity issues.

This SWMP identifies Best Management Practices (BMP) for the six (6) minimum control measures required by the Ohio EPA permit, which also meet U.S. EPA regulations. Many of the practices are modifications of existing procedures identified in an audit that the OTC completed in preparation for the development of this plan. There are also new practices identified and procedures established to evaluate alternative BMPs for future use for each of the minimum control measures.

The BMPs identified for the OTC SWMP are listed in Tables 1 through 5. Each table describes the BMP, the rationale for the selection of the BMP, the implementation schedule, measurable goal(s) and responsible party for each BMP represented. The OTC SWMP can be quickly reviewed via these tables, however, text descriptions have been included to assist with the development of the plan. Other entities that may affect the outcome of the SWMP include, small MS4s adjacent to OTC regulated areas and TMDL watersheds identified by the Ohio EPA. Figures 1 through 5 in Appendix 6 identify the OTC regulated areas.

### **C. Description of the Permit Development and Decision Process**

The OTC began the development of this Storm Water Management Plan by electing to achieve compliance with a two phased approach. The first phase, an Existing Conditions Audit, was completed in 2002. The primary goal of this Phase was to identify current activities conducted by the OTC that meet SWMP requirements. This approach assisted with the development of the SWMP by identifying existing Best Management Practices to be considered while meeting the six Minimum Control Measures required for the plan. The OTC conducted a comprehensive survey of these existing activities and produced a comprehensive audit report that assisted with the development of the SWMP.

The second phase was the development of the Storm Water Management Plan. The OTC has chosen to complete the consideration of Best Management Practices (BMPs) by assembling a committee of key personnel to review and make recommendations regarding BMPs for each of the six Minimum Control Measures included in the SWMP. This committee then approved the final recommendations. A series of meetings were then scheduled for the committee to review and discuss the proposed BMPs. This decision-making process allowed for the development of the rationale, schedules and measurable goals listed for each practice listed in Tables 1 through 5 of this document.

### **D. Storm Water Management Program**

#### **3.0 Storm Water Management Plan**

##### **3.1 Requirements:**

- 3.1.1 The OTC must develop, implement and enforce a SWMP designed to reduce pollutants from its MS4 to the Maximum Extent Practical (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the ORC 6111 and the Clean Water Act (CWA). This SWMP includes management practices, control techniques and system, design and engineering methods and shall be modified to include provisions as Ohio EPA determines appropriate after its review. This SWMP also includes the following information as required for each of the six minimum control measures described in Part 3.2 of this permit:

3.1.1.1 Selection of BMPs for each of the storm water minimum control measures.

The OTC has completed a thorough review of BMPs for each of the six minimum control measures. The BMPs selected are either existing procedures, modifications of existing procedures or new procedures. BMPs are listed in Tables 1 through 5 and will be carefully evaluated during the initial five years of the approved permit.

3.1.1.2 Each BMP identified includes a rationale for the selection and a discussion detailing procedures involved with implementing each BMP.

3.1.1.3 An implementation schedule is provided for each BMP to describe the timeline for BMP implementation.

3.1.1.4 Identified measurable goals are presented for each BMP to discuss the reporting requirements for each BMP.

3.1.1.5 Finally, each BMP identifies a responsible party charged with insuring the timely implementation of the BMP and tracking and reporting annually on each BMP.

3.1.2 The OTC must provide a rationale for how and why they selected each BMP and measurable goals for their SWMP. Development and implementation of their plan must occur within five years of when coverage under this general permit is granted.

## **1. Financial Ability to Implement the Storm Water Management Program**

The OTC will finance the implementation of the SWMP and selected BMPs as described in this document.

## **3.2 Minimum Control Measures (MCM)**

### **2. 3.2.1 and 3.2.2 Public Education and Outreach on Storm Water Impacts and Public Involvement/Participation (MCM #1 and #2)**

#### **a) Permit Requirement**

3.2.1.1 Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps that the public can take to reduce pollutants in storm water runoff. In the case of non-traditional MS4s (e.g. OTC, Universities, hospitals, prisons, military bases, and other government complexes), the permittee is only required to provide educational materials and outreach to employees, on-site contractors, and individuals using regulated facilities.

3.2.2.1 Comply with State and local public notice requirements when implementing a public involvement/participation program. In the case of non-traditional MS4s (e.g. OTC, Universities, hospitals, prisons, military bases, and other government complexes), the permittee is only required to provide educational materials and outreach to employees, on-site contractors, and individuals using regulated facilities.

## **b) Public Education and Outreach and Public Involvement/Participation on Storm Water Impact Program Plan**

Given the similarity of these two MCMs, the OTC has developed a unified Public Education and Public Involvement Program. The BMPs, measurable goals, and responsible parties in this Public Education and Public Involvement Plan are detailed in Tables 1a through 1g.

In addition to Tables 1a through 1g, the OTC has documented its decision process with the following information per Ohio EPA NPDES permit requirement 3.2.1.2 and 3.2.2.2.

### **3.2.1.2.1 & 3.2.1.2.2 The OTC must inform employees, on-site contractors, and individuals using OTC facilities about the steps they can take to reduce storm water pollution and how to become involved in the storm water management program.**

As presented in Tables 1a through 1g, OTC will inform its target audience about the steps they can take to reduce storm water pollution and to get involved in its SWMP through a combination of public meetings, community activities including recycling programs, print media including newsletters and brochures and web site postings.

### **3.2.1.2.3 & 3.2.2.2.3 Who are the target audiences for OTC's public involvement and public education plan who are likely to have significant storm water impacts and why were those target audiences selected? Include a description of the types of ethnic and environmental groups engaged and steps to involve all potentially affected stakeholders including businesses, trade associations, environmental groups, homeowners associations, and educational organizations.**

The OTC is a non-traditional MS4 and its target audience includes OTC employees, on-site contractors and individuals using Turnpike facilities subject to this permit.

### **3.2.1.2.4 What are the target pollutant sources your public education plan is designed to address?**

OTC will target pollutant sources along the Turnpike including sediment pollution from stream bank erosion and improperly controlled construction sites; habitat alteration due to land use changes; and bacteria and nutrient pollution from facility sewage treatment systems. However, the focus of the Storm Water Management Plan will be on the identification of "hot spots" determined by a systematic inventory of the OTC's regulated areas. Specific potential impacts to be addressed will be determined by the inventory.

OTC will focus much of its Public Education and Public Involvement Program on increasing the general awareness, to their employees, Turnpike contractors and the general public, of the links between land use practices and storm water pollution. In general, pollution problems associated with the Turnpike are the result of increased storm water volume and velocity due to an increase in impervious cover.

### **3.2.1.2.5 What is your outreach strategy, including mechanisms (e.g. printed brochures, newspapers, media, workshops, etc.) you will use to reach your target audiences, and how many people you expect to reach with the outreach strategy over the permit term?**

The OTC will reach its target audience by presenting the steps they can take to reduce storm water pollution and to get involved with the OTC SWMP through a combination of public meetings, community activities including recycling programs, partnering with federal and state agencies, print media including newsletters and brochures and web site postings. Milestones are listed for each BMP in Tables 1a through 1g for the various practices selected including efforts to document the number of people reached.

**3.2.2.2.1 How you have involved the public in the development and submittal of your NOI and SWMP.**

- A Public Notice was published on February 28, 2003 regarding the development of the SWMP and the submission of its NOI.
- The SWMP was available to the public to view at the OTC Administration Office for the period of March 3<sup>rd</sup> through March 7<sup>th</sup>, 2003.

**3.2.2.2.2 What is your plan to actively involve the public in the development and implementation of your plan?**

The practices listed are current and have successfully involved Turnpike employees, on-site contractors and individuals using OTC facilities. The OTC expects continued success with these audiences. It is expected that the addition of storm water content will evolve seamlessly.

**3.2.2.2.4 What types of public involvement activities are included in your plan? Where appropriate, consider the following types of public involvement activities:**

**3.2.2.2.4.1 Citizen Representatives on storm water management panel.**

The OTC is a non-traditional MS4 and their target audience has significant input regarding OTC activities through existing procedures. The OTC does not anticipate the development of a storm water management panel.

**3.2.2.2.4.2 Public hearings.**

It is not anticipated that the OTC will hold hearings regarding storm water management.

**3.2.2.2.4.3 Working with citizen volunteers willing to educate others about the program.**

As a non-traditional MS4, the OTC's audience is more limited than traditional MS4s.

**3.2.2.2.4.4 Volunteer monitoring or stream clean-up activities.**

Due to the nature of the Ohio Turnpike Commission with limited and controlled access, opportunities for the development of citizen volunteer clean-up activities such as the Adopt-a-Highway Program are not feasible. However, litter control is provided by Commission employees.

**3.2.1.2.6 & 3.2.2.2.5 Who is responsible for overall management and implementation of your Public Education and Involvement Plan?**

The OTC will manage and track the implementation of the Public Education and Involvement Plan. The party responsible for the management and implementation of each BMP is listed in Tables 1a through 1g.

**3.2.1.2.7 & 3.2.2.2.6 How will you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs?**

The schedule and measures to evaluate each practice and the rationale for their selection have been listed in Tables 1a through 1g.

Table 1a.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Newsletter – Turnpike Notes –  
Annually.

**RATIONALE:**

Existing practice. Supplement with articles on OTC SWMP Preparation and Implementation and storm water/water quality. Identify sources where additional information can be reviewed/obtained. Upcoming conferences and local storm water issues.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Provide a newsletter article about the program's development.

Years 2-5: Publish a minimum of one article per year about SWMP implementation and storm water/water quality.

**MEASURABLE GOAL:**

Years 1-5: Report annually on content and dates of articles.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1b.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Turnpike - General Storm Water Brochure.

**RATIONALE:**

Expand on existing Information Brochure/Construction Booklet to include water quality and Turnpike storm water issues, projects, and local storm water projects, issues successes.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop General Storm Water Brochure.

Years 2–5: Distribute brochure and SWM fact sheets at public meetings and as appropriate. Update brochure and fact sheets as necessary.

**MEASURABLE GOAL:**

Years 1-5: Track and report annually on the number of brochures and fact sheets printed/distributed.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1c.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Public Meetings – Open house format.

- Commission meetings – Annually
- Safety days

**RATIONALE:**

Expand current public meeting agenda or format to include storm water and water quality. Effective practice for reaching diverse audiences. Public education opportunity – showcase Turnpike storm water program. Incorporate use of Turnpike General Storm Water Brochure.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop presentation on storm water and water quality.

Years 2-5: Present materials developed at annual public meetings. Update and present program updates as needed.

**MEASURABLE GOAL:**

Years 1-5: Survey those attending storm water and water quality presentations for value added and report results annually.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1d.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Turnpike Website –  
Internet/Intranet.

**RATIONALE:**

Current web site exists – Expand to include water quality or storm water pages. Reach diverse audiences, track effectiveness by number of hits. Web site can be modified and updated as required. Links to other water quality/storm water web sites. Links added for local recycling programs.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop a Storm Water page for the OTC Web Site that provides information about the program's development.

Years 2 - 5: Add information about the program's implementation.

**MEASURABLE GOAL:**

Years 1-5: Track and report annually on the number of hits to the Storm Water Web page.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1e.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Partnering with other federal and state agencies.

**RATIONALE:**

Current practice, expand to include local, state and regional groups. Easy way to reach diverse audiences.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Identify agencies that can provide benefits or aid in the SWMP process (i.e., Health Department, etc).

Year 2: Review and assess benefits and potential relevant information provided by agencies.

Years 3-5: Select agencies that will provide the most benefit.

**MEASURABLE GOAL:**

Year 1: Generate list of agencies that can aid in the SWMP process.

Year 2: Document review and assessment process. Determine which agencies would provide the most benefit in the development process.

Years 3-5: Document agency selection process.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1f.  
Public Education and Involvement  
Minimum Control Measure

**BMP:** Recycling Programs – Add information to General Storm Water Brochure.

**RATIONALE:**

Current practice, limited in scope. Expand current practice. Review local recycling practices to develop similar program. Develop a means for tracking program effectiveness. Review OTC's recycling operation as a potential model to incorporate.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Assess effectiveness of current recycling program and develop procedures to quantify results. Review local recycling practices as possible model.

Years 2-5: Track quantities of recycled materials. Include information about recycling program in the Turnpike General Storm Water Brochure.

**MEASURABLE GOAL:**

Year 1: Verify review of current program and document methods to quantify results.

Years 2-5: Track quantities recycled per year and report annually. Verify that information is being included in General Storm Water Brochure.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 1g.  
Public Education and Involvement  
Minimum Control Measure

BMP: Pre-stamp all drains.

RATIONALE:

Not a current practice. At the municipal level this BMP has received very high review marks. As of January 1, 2003, ODOT approved this BMP for use and at no additional cost to the project/contractor.

IMPLEMENTATION

SCHEDULE:

Years 1-5: Pre-cast OTC catch basin grates will be stamped with a no dumping reference. Construction specifications will include this item.

MEASURABLE GOAL:

Years 1-5: Monitor and report annually on the number installed within regulated areas.

RESPONSIBLE PARTY:

Maintenance Department

### **3. Illicit Discharge Detection and Elimination (MCM #3)**

#### **a) The Permit Requirement**

**3.2.3.1.1** The OTC must develop, implement, and enforce a program to detect and eliminate illicit discharges into its small MS4 (for illicit discharges to the OTC's MS4 via a neighboring interconnected MS4, the OTC is only required to inform the neighboring MS4 and the Ohio EPA in its annual report submission, of their existence).

**3.2.3.1.2** The OTC must develop a storm sewer system map showing the location of all outfalls and the names and locations of all surface waters of the State that receive discharges from those outfalls.

**3.2.3.1.2.1** Within five years of when the OTC's coverage under this general permit is granted, it must submit the following to Ohio EPA:

**3.2.3.1.2.1.1** A list of all on-site sewage disposal systems connected to discharge to the OTC's MS4 (a.k.a. home sewage treatment systems (HSTS)) including addresses.

**3.2.3.1.2.1.2** A storm sewer map showing the location of all HSTS connected to its MS4. This map shall include details on the type and size of conduits/ditches in the OTC MS4 that receive discharges from HSTSs, as well as the water bodies receiving the discharges from the OTC MS4.

**3.2.3.1.3** To the extent allowable under State or local law, the OTC must effectively prohibit through ordinance or other regulatory mechanism illicit discharges to the OTC storm sewer system and implement appropriate enforcement procedures and actions.

**3.2.3.1.4** The OTC must develop and implement a plan to detect and eliminate non-storm water discharges, including illegal dumping, to the OTC system.

**3.2.3.1.5** The OTC must inform Turnpike employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

**3.2.3.1.6** The OTC must address the following categories of non-storm water discharges or flows (i.e. illicit discharges) only if OTC identifies them as significant contributors of pollutants to its MS4 including: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR Section 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges of flows from fire fighting activities (by definition, not an illicit discharge).

**3.2.3.1.7** The OTC may also develop a list of other similar occasional incidental non-storm water discharges (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges must be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the OTC has established for allowing these discharges to its MS4 (e.g., a charity car wash with appropriate controls on frequency,

proximity to sensitive water bodies, BMPs on the wash water, etc.). The OTC must document any local controls or conditions placed on the discharges. The OTC must also include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to its MS4.

**b) Illicit Discharge Detection and Elimination Program Plan**

The BMPs, BMP rationale, implementation schedule, measurable goals, and responsible parties in this Illicit Discharge Detection and Elimination Plan are detailed in Tables 2a through 2e. In addition to Tables 2a through 2e, per Ohio EPA NPDES permit requirement 3.2.3.2, the OTC has documented its decision process with the following information required by this permit:

**3.2.3.2.1 How will the OTC develop a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information the OTC used for the maps, and describe how OTC plans to verify the outfall locations with field surveys. Describe how the map will be regularly updated.**

The OTC will initially complete an inventory of the storm water drainage system for a limited geographic area (one urbanized area), evaluate the results and implement a complete system inventory of its regulated areas. The database and maps resulting from the survey will be updated as needed.

**3.2.3.2.2 Describe the mechanism (ordinance or other regulatory mechanism) the OTC will use to prohibit illicit discharges and why it chose that mechanism. If the OTC needs to develop this mechanism, describe the plan and a schedule to do so. If an ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the OTC program.**

The OTC's authority is limited with regard to the control of illicit discharges. While the OTC will make efforts to identify such discharges via a system inventory, they will depend upon local entities with the proper authorities to control such discharges from other small MS4s to their storm drainage system. The OTC will identify and eliminate any such discharges that originate from their roadways or facilities.

**3.2.3.2.3 Describe the OTC's plan to ensure, through appropriate enforcement procedures and actions, that its illicit discharge regulation is implemented.**

The OTC will depend upon local county, municipal and township authorities to assist with enforcement, and will cooperate with local enforcement efforts. Discharges from within the OTC system will be coordinated with others by the Maintenance Department.

**3.2.3.2.4 Describe OTC's plan to detect and address illicit discharges to its system, including discharges from illegal dumping and spills. The plan must include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. The plan must also address on-site sewage disposal systems (including failing on-lot HSTS and off-lot discharging HSTS) that flow into the OTC's storm drainage system. The OTC's description must address the following at a minimum:**

**3.2.3.2.4.1 Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g. areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches.**

The OTC will initially complete an inventory and map of its storm water drainage system within one urbanized area. It will also conduct dry weather screening and obtain information about the location of HSTS from local County and Municipal Health Departments. It has identified regulated areas with SWMP responsibilities in order to assist with the identification of drainage impacts upon its system. These areas are listed on Appendix 3. The OTC has also identified other service providers including Health Departments, Soil and Water Conservation Districts and Metropolitan Planning Organizations to further assist in the identification of drainage impacts upon its system. These service providers are listed in Appendix 4. Many of these organizations have completed maps or are working on inventories and maps to identify these drainage areas. They may also have information available from past and present screening analyses, and information concerning the identification of illicit discharges.

**3.2.3.2.4.2 Procedures for tracing the source of an illicit discharge, including specific techniques you will use to detect the location of the source.**

The procedures used will be identified at the completion of the initial inventory. Results of the initial inventory will help determine the most efficient method for completion of this objective. The OTC will conduct dry weather screening, consisting of physical observations of suspect drainage areas, documentation of locations, and assistance/notification of local officials.

**3.2.3.2.4.3 Procedures for removing the source of an illicit discharge.**

The OTC will identify and eliminate any such discharges that originate from their roadways or facilities. In addition, the OTC will develop an identification and notification procedure for reporting illicit discharges to their system.

**3.2.3.2.4.4 Procedures for program evaluation and assessment.**

The OTC has identified an implementation schedule and measurable goals to determine program effectiveness and are included in Tables 2a through 2e. The OTC will report to the OEPA annually on their results. There are, however, some inherent uncertainties regarding the multitude of local efforts required to eliminate discharges under the jurisdiction of many local authorities. These will be further identified and addressed during program implementation.

**3.2.3.2.5 How does the OTC plan to inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste. Include in the description how this plan will coordinate with public education minimum measure and the pollution prevention/good housekeeping minimum measure.**

The OTC is a non-traditional MS4 and its target audience includes Turnpike employees, on-site contractors and individuals using facilities subject to this permit. Tables 1a through 1g details the specific BMPs that the OTC will utilize to inform its target audience of the hazards associated with illicit discharges.

**3.2.3.2.6 Who is responsible for overall management and implementation of OTC's storm water illicit discharge detection and elimination plan and, if different, who is responsible for each of the BMPs identified for this plan.**

Tables 2a through 2e identify the party responsible for the implementation, tracking and reporting on each BMP.

**3.2.3.2.7 How will the OTC evaluate the success of this minimum measure, including how they selected the measurable goals for each of the BMPs.**

Each BMP listed in Tables 2a through 2e details the methods for evaluating the success of that BMP. The success of this MCM, of course, is dependent upon the outcome of the individual BMPs. Elimination of illicit discharges will depend upon the cooperation of the other MS4s and Service Providers.

Table 2a.  
 Illicit Discharge Detection and Elimination System  
 Minimum Control Measure

**BMP:** Turnpike System Inventory

- Highway System Inventory
- Toll Plazas
- Service Plazas
- Maintenance Facilities
- Satellite Areas

**RATIONALE:**

- Work with available drawings to determine level of system coverage.
- Turnpike currently does not have GIS level mapping available.
- Review current site civil drawings for facilities to aid in outfall determination.
- Develop sewershed map and inventory, to be completed within the 5 year permit term.
- Review adjacent Phase I/II regulated entities for inventory information on system connectivity.
- Bridge, interchange and drainage storm sewer system inventory available.
- Third Lane Program drainage inventory reports available.

**IMPLEMENTATION**  
**SCHEDULE:**  
 Year 1: Review and establish survey protocol. Identify system attributes and locate and field mark visible system attributes.  
  
 Years 2-5: Perform inventory and develop map.

**MEASURABLE GOAL:**  
 Year 1: Document survey protocol, attributes, and field located system attributes.  
  
 Years 2-5: Complete survey and system mapping.

**RESPONSIBLE PARTY:**  
  
 Maintenance Department

Table 2b.  
 Illicit Discharge Detection and Elimination System  
 Minimum Control Measure

**BMP:** Home Sewage Treatment System Inventory and Storm Sewer System Map

- Home Sewage Treatment Systems (HSTS).

**RATIONALE:**  
 Determine level of mapping and mapping protocol associated with locating and identifying HSTS outfalls and incorporate into:

- OTC's Storm Water Management Plan.
- System map updating process.
- Map showing HSTS outfalls.
- List of regulated Counties which the Turnpike passes through.
- Create County Health Department contact list for:
  - HSTS mapping information
  - Possible cooperative opportunity to assist in map development

**IMPLEMENTATION SCHEDULE:**  
 Year 1: Contact Municipal and County Health Departments throughout the OTC permitted area to obtain possible existing information.

Years 2-5: Field verify and supplement data obtained from Municipal and County Health Departments. Complete maps showing HSTSs that are connected to or discharge to the OTC permitted area. Complete tables that include the address for each HSTS.

**MEASURABLE GOAL:**  
 Year 1: Document the completion of Health Department survey. Determine usefulness of the HSTS mapping information.

Years 2-5: Document the completion of field checks of Health Department data. Document the completion of HSTS maps and tables. Document the development and implementation of a means to report identified HSTSs and mitigate illicit discharges.

**RESPONSIBLE PARTY:**  
 Maintenance Department

Table 2c.  
Illicit Discharge Detection and Elimination System  
Minimum Control Measure

**BMP:** Dry Weather Screening of outfalls for illicit connections.

- Highway system/Facility system inventory mapping.

**RATIONALE:**

During system inventory perform the following Dry Weather Screening attribute collections:

- Presence of flow
- Depth of flow
- Outfall location
- Presence of color or odor

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop and establish Dry Weather Screening procedures.

Year 2-5: Review results of Turnpike System Inventory to assist and develop Dry Weather Screening Program. Review results of comprehensive survey of storm water system for OTC regulated areas, identify outfalls or areas requiring screening and complete study. Complete field reconnaissance for suspect drainage areas.

**MEASURABLE GOAL:**

Year 1: Document procedures for locating, identifying and performing Dry Weather Screenings.

Year 2: Document results of Turnpike System Study with regard to Dry Weather Screening protocols.

Years 3-5: Document the location of outfalls selected for Dry Weather Screening as a result of the comprehensive system inventory. Document screening of outfalls and report data regarding the outfall location, the presence of flow, the depth of flow, the quantity of flow and the presence of color or odor. Document the results of field reconnaissance. Document the number and location of illicit connections.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 2d.  
 Illicit Discharge Detection and Elimination System  
 Minimum Control Measure

**BMP:** Illicit Discharge Detection Methodology

- Process
- Documentation
- Tracking/Reporting detections and removals

**RATIONALE:**

- Review and assess current procedures for DOT's and other Toll Roads.
- Develop Procedures and methodology for handling detected illicit discharges.
- Develop a priority area map.
- Develop Public Involvement Program for the identification and reporting of illicit discharges.
- Identify monitoring program types (i.e., first flush, dry weather, continuous sampling, etc.)

**IMPLEMENTATION SCHEDULE:**

Year 1: Review current OTC Illicit Discharge Detection procedures.

Year 2: Assess OTC's Illicit Discharge Detection procedures. Develop procedures and a map for detection of illicit discharges. Develop Public Involvement Program for the identification and reporting of illicit discharges.

Years 3-5: Implement completed Illicit Discharge Detection procedures and the Public Involvement Program.

**MEASURABLE GOAL:**

Year 1: Document results of the Illicit Discharge Detection procedure.

Year 2: Document procedures for illicit discharge detection and verify the development of a map.

Years 3-5: Document illicit discharge detection and Public Involvement Program process.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 2e.  
 Illicit Discharge Detection and Elimination System  
 Minimum Control Measure

**BMP:** Total Maximum Daily Load (TMDL) (see next page)

- RATIONALE:**
- TMDL is a required component of the MS4 permit.
  - Outline process to address actions to be taken upon approval of a TMDL.
  - Document process when complete.
  - Currently, no procedures are in place to address TMDL or determination of “Significant Contributor” status.
  - Actual step by step process will be addressed by OEPA Permit Section 1.3.6.

**IMPLEMENTATION SCHEDULE:**

Year 1: Review OEPA implementation schedule for TMDL and create list of locations and applicable pollutants within the OTC regulated areas.

Year 2: Develop a process to determine whether or not OTC is a significant contributor in applicable areas with TMDL limitations.

Year 3: Implement process to determine OTC contribution, if any, and report results.

Years 4-5: If OTC is a significant contributor develop and implement process for pollutant removal.

**MEASURABLE GOAL:**

Year 1: Document locations and schedule of OEPA’s TMDL. Review and identify any correlation between TMDL watersheds and facilities within the OTC Phase II regulated areas.

Year 2: Document development of process to verify any contribution of TMDL pollutant load from the OTC regulated area.

Years 3-5: Document implementation of process and begin any necessary TMDL mitigation procedures to reduce contributions based on the developed TMDL requirements.

Years 4-5: Report on pollutants removed and document any screening results obtained.

**RESPONSIBLE PARTY:**

Maintenance Department

### BMP (Cont'd):

- Determine if any portion of the Ohio Turnpike or OTC Facilities are within a TMDL watershed.
- Determine what pollutants and what sources of pollutants are present in the TMDL watershed.
- Determine if the OTC is a “Significant Contributor” of pollutants that are present in the TMDL watershed (i.e., is OTC a major source of the pollutants present?).
  - If OTC is not a “Significant Contributor,” OTC should be able to demonstrate how they came to this conclusion.
  - If OTC is a “Significant Contributor,” develop strategies to achieve necessary pollution reduction within impaired stream segment(s).
  - OTC should be able to demonstrate how they determine the amount of pollutant needed to be reduced within impaired stream segment(s), and how much pollutant was reduced (i.e., water sampling to verify the amounts removed).

#### 4. Construction Site Storm Water Runoff Control (MCM #4)

##### a) The Permit Requirement

3.2.4.1 The OTC must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to its small MS4 from construction sites that result in a land disturbance of greater than or equal to 1 acre. Reduction of pollutants in storm water discharges from construction activity disturbing less than 1 acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb 1 or more acres. The program must include the development and implementation of, at a minimum:

3.2.4.1.1 An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law.

3.2.4.1.2 Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.

3.2.4.1.3 Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.

3.2.4.1.4 Procedures for site plan review which incorporate consideration of potential water quality impacts.

3.2.4.1.5 Procedures for receipt and consideration of information submitted by the public.

3.2.4.1.6 Procedures for site inspections and enforcement of control measures.

##### b) Construction Site Storm Water Runoff Control Plan

The BMPs, BMP rationale, implementation schedule, measurable goals, and responsible parties in this Construction Site Storm Water Runoff Control Plan are detailed in Tables 3a through 3f. In addition to Tables 3a through 3f, per Ohio EPA NPDES permit requirement 3.2.4.2, the OTC has documented its decision process with the following information required by the permit:

**3.2.4.2.1 The regulatory mechanism the OTC will use to require erosion and sediment control at construction sites and why they chose that mechanism. If the OTC needs to develop this mechanism, describe the plan and schedule to do so. If the mechanism is already developed, include a copy of the relevant sections with the SWMP.**

OTC plans to control construction site runoff via the Ohio EPA General Permit Authorization for Storm Water Discharges Associated with Construction Activity under the NPDES. Contractors/consultants will be required to develop and implement the Storm Water Pollution Prevention Plan. Erosion and sediment controls will be tracked for locations and quantities of materials installed. The OTC will hold retainage from the contractor pending completion of appropriate sediment and erosion control implementation and maintenance.

**3.2.4.2.2 The OTC's plan to ensure compliance with its erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms you will use to ensure compliance. Describe procedures for when the OTC will use certain sanctions. Possible sanctions include non-monetary penalties (such as a stop work order), fines, bonding requirements, and/or permit denials for non-compliance.**

As noted above, the OTC plans to hold retainage on contractors pending sediment and erosion compliance.

**3.2.4.2.3 The OTC's requirements for construction site operators to implement erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts on water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.**

The OTC will continue to follow erosion and sediment control procedures for construction sites. The current sediment and erosion control guidance which OTC follows is to utilize the Ohio Department of Transportation's Location and Design Manual, Volume 2.

**3.2.4.2.4 Describe the OTC's procedure for site plan review, including the review of pre-construction site plans, which incorporate considerations of potential water quality impacts. Describe OTC's procedures and the rationale for how it will identify certain sites for site plan review, if not all plans will be reviewed. Describe the estimated number and percentage of sites that will have pre-construction site plan review.**

Site plan reviews will be completed by the contractor as a part of the bid award process. Each bid for areas larger than one acre will require the completion of a Storm Water Pollution Prevention Plan per the requirements of Ohio EPA General Permit Authorization for Storm Water Discharge Associated with Construction Activity.

**3.2.4.2.5 Describe the OTC's procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with the public education and involvement plan.**

The OTC is a non-traditional MS4 and its target audience includes OTC employees, on-site contractors and individuals using facilities subject to this permit. Tables 1a through 1g outline the specific BMPs that the OTC will use to inform its target audience.

**3.2.4.2.6 Describe the OTC's procedures for site inspection and enforcement of control measures, including how it will prioritize sites for inspection.**

The OTC will draft and establish internal and external procedures for site inspection and use its Quality Assurance/Quality Control (QA/QC) process for implementation. Contractors will be required to conduct regular inspections and the OTC will review the contractors' inspection reports on a regular basis. The OTC will also develop and deliver training modules to their personnel.

**3.2.4.2.7 Who is responsible for the overall management and implementation of the OTC's construction site storm water control plan, and if different, who is responsible for each of the BMPs identified in this plan.**

Tables 3a through 3f list the Maintenance Department as the office with overall responsibility for the implementation of each BMP.

**3.2.4.2.8 Describe how the OTC will evaluate the success of this minimum measure, including how you selected the measurable goals for each BMP.**

Each BMP listed in Tables 3a through 3f includes the methodology for evaluating the success of that BMP. The success of this MCM, of course, is dependent upon the outcome of the individual BMPs.

Table 3a.  
 Construction Site Storm Water Runoff Control  
 Minimum Control Measure

**BMP:** OTC – to comply with OEPA Authorization for Storm Water Discharges associated with Construction Activity under NPDES for SWPPP design requirements for the following Turnpike functional Types:

- Highway system
- Facility systems
- Maintenance systems

(OEPA Construction Permit)

**RATIONALE:**

- ODOT’s Location and Design, Volume 2 currently utilized as the document of record.
- Program elements in place and functioning.
- Current Location and Design, Volume 2 being used for Highway, Facilities for SWPPP and Erosion and Sediment Control design.
- Architect/Engineer for Service Plazas, Highway, Maintenance and Facilities is currently responsible for plan and specification development.
- Maintenance practices will incorporate Erosion and Sediment Control into its procedures.

**IMPLEMENTATION**

**SCHEDULE:**

Years 1-2: Revise current SWPPP program requirements. Draft initial Internal/External Quality Assurance/Quality Control (QA/QC) requirements and refine Erosion and Sediment Control QA/QC process. Identify means for tracking.

Years 3-5: Implement completed QA/QC process for Erosion and Sediment Control.

**MEASURABLE GOAL:**

Years 1-2: Document completion of QA/QC process:

- Develop plan review checklist
- Consultant/Contractor to complete checklist modifications if necessary prior to construction

Years 3-5: Track Erosion and Sediment Control BMP effectiveness through QA/QC process. Identify BMP alternatives if necessary.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 3b.  
Construction Site Storm Water Runoff Control  
Minimum Control Measure

**BMP:** OTC Internal/External Quality Assurance/Quality Control (QA/QC) Program for Erosion and Sediment Control.

**RATIONALE:**

- Internal – Current QA/QC in place and functioning.
- External – Contractors.

**IMPLEMENTATION**

**SCHEDULE:**

Years 1-2: Draft initial QA/QC requirements, refine Erosion and Sediment Control QA/QC process and identify means for tracking.

Years 3-5: Implement completed QA/QC process and track/review Erosion and Sediment Control procedures and BMPs.

**MEASURABLE GOAL:**

Years 1-2: Verify that QA/QC requirements have been drafted.

Years 3-5: Track Erosion and Sediment Control BMP effectiveness through QA/QC process. Document BMP effectiveness. Identify or develop BMP alternatives if necessary. Establish Erosion and Sediment Control as pay items and track result.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 3c.  
Construction Site Storm Water Runoff Control  
Minimum Control Measure

**BMP:** Method of tracking: Between Design and Construction phases.

**RATIONALE:**

- Track erosion and sediment control installations as a pay item.
- Withholding of payment due to improper installation or non-installation.
- Enforcement mechanism.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop tracking software or purchase “off the shelf” software for comparing quantities of pay items and totals installed.

Years 2-5: Modify developed tracking software as needed to track SWMP BMPs for reporting. Track quantities installed, locations and system deficiencies noted. Identify and document enforcement mechanism (partial payment withheld).

**MEASURABLE GOAL:**

Year 1: Document the development or acquisition of software to track construction progress for contractor payment. Verify completion of enforcement language.

Years 2-5: Track and report on quantities installed and quantities bid. Document any payments withheld and report on location and contractor. Review effectiveness of selected BMPs via additional tracking procedures.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 3d.  
Construction Site Storm Water Runoff Control  
Minimum Control Measure

**BMP:** OTC – To implement process to evaluate and update new or alternative BMPs.

**RATIONALE:**

OTC will develop a means by which to assess/evaluate potential BMPs included in the Location and Design, Volume 2, which is currently utilized as the document of record.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop an evaluation process for existing, new and alternative BMPs.

Year 2: Incorporate selected BMPs into design. Report on BMP effectiveness.

Years 3-5: Initiate evaluation procedure for construction BMPs added to OTC's "toolbox."

**MEASURABLE GOAL:**

Year 1: Document the development of BMP evaluation process.

Year 2: Verify updates to Location and Design manuals.

Years 3-5: Track effectiveness of new or alternative BMPs added to manuals and report results.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 3e.  
Construction Site Storm Water Runoff Control  
Minimum Control Measure

**BMP:** OTC to develop Internal/External Erosion and Sediment Training.

**RATIONALE:**

- Internal training to be built into QA/QC Program.
- External training as needed based on results of QA/QC contractor performance review.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Outline training program.

Year 2: Develop training modules.

Years 3-5: Implement Internal/External erosion and sediment training programs.

**MEASURABLE GOAL:**

Year 1: Document the development of the training program outline for erosion and sediment control.

Year 2: Verify the completion of training modules for erosion and sediment control.

Years 3-5: Track number of OTC personnel and others who receive training. Review erosion and sediment control training modules for revisions.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 3f.  
Construction Site Storm Water Runoff Control  
Minimum Control Measure

**BMP:** Current staff to be further educated on water quality issues, topics and procedures.

**RATIONALE:**

- Incorporate water quality issues and education as needed.
- Staff will need to be further educated to address Storm Water Management issues.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Outline education program.

Year 2: Provide general storm water education to personnel.

Years 3-5: Public Affairs will provide information to the public as projects or needs dictate. Continue training program.

**MEASURABLE GOAL:**

Year 1: Verify the completion of program outline.

Year 2: Track and report the number of personnel receiving storm water training.

Years 3-5: Track and report Public Affairs attendance at public events with storm water significance including project meetings, public meetings and other opportunities to provide information. Verify continued storm water training.

**RESPONSIBLE PARTY:**

Maintenance Department

## **5. Post-Construction Storm Water Management in New Development and Redevelopment (MCM #5)**

### **a) The Permit Requirement**

3.2.5.1.1 Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to 1 acre, including projects less than 1 acre that are part of a larger common plan of development or sale, that discharge into your small MS4. The OTC's program must ensure that controls are in place that would prevent or minimize water quality impacts.

3.2.5.1.2 Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the OTC's non-traditional MS4.

3.2.5.1.3 Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law.

3.2.5.1.4 Ensure adequate long-term operation and maintenance of BMPs.

### **b) Post-Construction Storm Water Management in New Development and Redevelopment Plan**

The BMPs and their associated rationale, implementation schedules, measurable goals, and responsible parties for this Post-Construction Storm Water Management in New Development and Redevelopment Plan are detailed in Tables 4a through 4i. In addition to Tables 4a through 4i, per the Ohio EPA permit requirement 3.2.5.2, the OTC will document its decision process with the following information required by the permit:

**3.2.5.2.1 The OTC's program to address storm water runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program.**

As detailed in Tables 4a through 4i, the OTC will use a combination of planning activities, education, and non-structural and structural practices to address storm water runoff from new development and redevelopment projects. The OTC will focus upon the use of existing practices in the early years of the program, but will evaluate alternative methods for possible future use.

**3.2.5.2.2 Describe how the OTC's program will be specifically tailored for it non-traditional MS4, how it will minimize water quality impacts, and attempt to maintain pre-development runoff conditions.**

The OTC is a non-traditional MS4 and has regulated areas across Ohio. Its water quality concerns are generally those related to an increase in the volume of storm water runoff and flooding as a result of an increase in impervious cover and sedimentation due to stream bank erosion. To address this, the OTC will employ the existing practices outlined in Tables 4a through 4i and will begin an evaluation of its design guidelines and procedures for these practices, evaluating flow and pollution load reductions consistent with safety and site-specific design considerations, including local topography and terrain.

**3.2.5.2.3 Describe any non-structural BMPs in the OTC's program, including, as appropriate:**

**3.2.5.2.3.1 Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation.**

This item pertains more to municipalities and zoning. Due to the linear nature of the Turnpike, and the need to upgrade and add facilities based on traffic demand, the OTC does not have the ability to develop policies and ordinances to direct growth in identified areas. The OTC follows federal and state regulations for impacts on wetlands and other waters of the U.S.

**3.2.5.2.3.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure.**

The OTC is a non-traditional MS4 and does not have direct responsibility for infill development.

**3.2.5.2.3.3 Education programs for developers and the public about project designs that minimize water quality impacts.**

As presented in Tables 1a through 1g, the OTC will inform its target audience about the steps they can take to reduce storm water pollution and to get involved its SWMP through a combination of community activities and print media including newsletters, and web site postings.

**3.2.5.2.3.4 Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas and source control measures often thought of as a good housekeeping, preventable maintenance and spill prevention.**

The OTC will explore the appropriateness of these measures in its Post-Construction technology evaluation program as outlined in Tables 4a through 4i.

**3.2.5.2.4 Discuss any structural BMPs in the OTC program, including, as appropriate:**

**3.2.5.2.4.1 Storage practices such as wet ponds and extended-detention outlet structures.**

In addition, OTC currently has functional Detention/retention facilities in place at Service Plazas throughout their system. Their primary function is for water quantity mitigation. The OTC has identified detention or retention structures for review in its Post-Construction evaluation program as outlined in Tables 4a through 4i.

#### **3.2.5.2.4.2 Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips.**

Grassed swales, filter strips and energy dissipaters have been identified for design review during the first year of the program as described in Tables 4a through 4i. Modifications found to be appropriate for flow and pollution load reductions consistent with safety and site-specific design considerations, including local topography and terrain will be evaluated.

#### **3.2.5.2.4.3 Infiltration practices such as infiltration basins and infiltration trenches.**

The OTC will explore the appropriateness of these measures in its Post-Construction technology evaluation program as outlined in Tables 4a through 4i.

#### **3.2.5.2.5 What are the mechanisms (ordinance or other regulatory mechanisms) that OTC will use to address post-construction runoff from new developments and redevelopments and why it chose that mechanism. If OTC needs to develop a mechanism, describe the plan and schedule to do so. If the ordinance or regulatory mechanism is already developed, include a copy of the relevant sections in the program.**

The OTC is a non-traditional MS4 and has regulated areas across Ohio. It has no authority regarding local land use mechanisms. Appendix 3 and 4 of this permit outline regulated areas and service providers who may address these issues. If feasible, the OTC will coordinate its efforts with these entities to assist with the implementation of such mechanisms.

#### **3.2.5.2.6 How will the OTC ensure the long-term operation and maintenance (O&M) of its selected BMPs. Options to help ensure that future operation and maintenance responsibilities are clearly identified include an agreement between the OTC and another party such as a post-development landowners or regional authorities.**

OTC will address operation and maintenance issues in its Post-Construction technology evaluation program as outlined in Tables 4a through 4i for those practices selected for use on Turnpike facilities within their regulated areas. However, as a non-traditional MS4, the OTC has little control over other landowners or regional authorities.

#### **3.2.5.2.7 Who is responsible for overall management and implementation for the OTC's post-construction plan and, if different, who is responsible for each of the BMPs identified for this program.**

Tables 4a through 4i list the Maintenance Department as the office with overall responsibility for the implementation of each BMP.

#### **3.2.5.2.8 How will the OTC evaluate the success of this minimum measure, including how the measurable goals were selected by the OTC for each of the BMPs.**

Each BMP listed in Tables 4a through 4i includes methods for evaluating the success of that BMP. The success of this MCM, of course, is dependent upon the outcome of the individual BMPs.

Table 4a.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Grass Swales and Drainage  
Ditches.

**RATIONALE:**

OTC continues to use swales to the extent possible consistent with safety and site specific design considerations. Develop alternative regional BMPs for regulated western portion.

**SCHEDULE:**

Year 1: Review design guidelines and procedures for this practice and modify, if applicable, for flow and pollution load reductions consistent with safety and site-specific design considerations, including local topography and terrain.

Years 2-5: Continue to use existing design guidelines or begin using revised guidelines if applicable.

**MEASURABLE GOAL:**

Year 1: Verify completion of OTC design guideline review and document any applicable changes.

Years 2-5: Document installation of swales with modified design criteria if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4b.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Filter Strips and Overland Flow  
(roadway shoulders).

**RATIONALE:**

OTC to continue to use overland flow for storm water to the extent possible consistent with safety and site specific design considerations.

**SCHEDULE:**

Year 1: Review design guidelines and procedures for this practice and modify, if applicable, for flow and pollution load reductions consistent with safety and site-specific design considerations, including local topography and terrain.

Years 2-5: Continue to use existing design guidelines or begin using revised guidelines in applicable.

**MEASURABLE GOAL:**

Year 1: Verify completion of OTC design guidelines review and document any applicable changes.

Years 2-5: Document installation of roadway shoulders with filter strips if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4c.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Flow Control Weirs.

**RATIONALE:**

OTC uses weirs to the extent possible consistent with safety and site specific design considerations.

**SCHEDULE:**

Year 1: Review design guidelines and procedures for this practice and modify, if applicable, for flow and pollution load reductions consistent with safety and site-specific design considerations, including local topography and terrain.

Years 2-5: Continue to use existing design guidelines or begin using revised guidelines if applicable.

**MEASURABLE GOAL:**

Year 1: Verify completion of OTC design guideline review and document any applicable changes.

Years 2-5: Document design criteria of flow control weirs, if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4d.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

BMP: Litter Control.

RATIONALE:

OTC continue program to reduce litter to area streams.

SCHEDULE:

Year 1: Review litter pick-up and frequency and possible addition of a recycling program for separated materials. Review the feasibility of documenting quantities of litter collected, separated and recycled.

Years 2-5: Continue litter collection program with the addition of recycling program if feasible.

MEASURABLE GOAL:

Year 1: Document results of frequency, recycling and separation study.

Years 2-5: Document results of continuing litter collection program and the effectiveness of modifications made if feasible.

RESPONSIBLE PARTY:

Maintenance Department

Table 4e.  
 Post-Construction Storm Water Management  
 in New Development and Redevelopment  
 Minimum Control Measure

**BMP:** Storm Sewer System  
 Maintenance – System Types:  
 Ultra Urban, Urban and Rural –  
 Open ditches and closed pipe  
 systems, catch basins, manholes  
 and spoil material disposal.

- Document procedures
- System maps
- Training

**RATIONALE:**

- No overall Storm System Base Map exists.
- Storm System Base Map development for tracking cleaning and maintenance activities.

**SCHEDULE:**

Year 1: Begin development of Storm Sewer Maintenance Program including system maps to allow for scheduling, tracking and an evaluation of the feasibility of spoils collection and disposal.

Year 2: Train OTC personnel for the Storm Sewer Maintenance Program.

Year 3: Develop schedule and implement Storm Sewer Maintenance Program.

Years 4-5: Complete system mapping, monitor effectiveness of Storm Sewer Maintenance Program.

**MEASURABLE GOAL:**

Year 1: Document development of Storm Sewer Maintenance Program.

Year 2: Document the number of employees trained.

Year 3: Report sewer maintenance schedule and work completed.

Year 4: Continue reporting on annual progress.

Year 5: Report projects completed and assess maintenance program effectiveness.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4f.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Highway and Bridge Cleaning Operation –

- Highway sweeping/cleaning
- Bridge sweeping/cleaning
- Collection of spoils or runoff
- Disposal of spoils

**RATIONALE:**  
No current procedures or practices are documented or drafted as policy.

**SCHEDULE:**  
Years 1-5: Continue seasonal Highway and Bridge Cleaning Operation in the spring and fall and report annually. Develop procedures for the documentation of lane miles, amount of spoil collection and spoil disposal.

**MEASURABLE GOAL:**  
Years 1-5: Verify the completion of seasonal Highway and Bridge Cleaning Operation. Document the use and effectiveness of new procedures for the documentation of lane miles, amount of spoil collection and disposal.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4g.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Energy Dissipaters.

**RATIONALE:**

OTC's current practice for managing peak run-off into local drainage system is consistent with safety and site specific design considerations. Use only where open drainage system exists and positive roadway drainage can be maintained.

**SCHEDULE:**

Year 1: Review design guidelines and procedures for this practice and modify, if applicable, for flow and pollution loads and channel erosion consistent with safety and site-specific design considerations, including local topography and terrain.

Years 2-5: Continue to use existing design guidelines or begin using revised guidelines if applicable.

**MEASURABLE GOAL:**

Year 1: Verify completion of OTC design guideline review and document any applicable changes.

Years 2-5: Document installation of roadway shoulders with energy dissipaters if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4h.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** OTC – Post-Construction detention and retention run-off controls developed per OEPA Construction Permit.

**RATIONALE:**

- Currently identified OTC Post-Construction practices will be assessed and evaluated for incorporation into project development process.
- Potential new Post-Construction will be evaluated and assessed for inclusion in the project development and selection.
- Evaluation process to be developed for assessment and selection.

**SCHEDULE:**

Year 1: Review Post-Construction Evaluation processes used in other state turnpikes. Select OTC evaluation process. Review practices and recommend Post-Construction Controls.

Years 2-5: Incorporate Post-Construction Controls selected into project documents. Include local storm water management, zoning and any requested drainage design criteria in project review process.

**MEASURABLE GOAL:**

Year 1: Verify selection and implementation of evaluation process and report on controls selected.

Years 2-5: Document steps taken to incorporate controls into selected project documents. Document procedure established for review of local design criteria.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 4i.  
Post-Construction Storm Water Management  
in New Development and Redevelopment  
Minimum Control Measure

**BMP:** Review of emerging technology for potential inclusion into Best Management Practices for OTC required by SWPPP (Construction Permit) and MS4 permit requirements.

**RATIONALE:**

- OTC to select BMP based on feasibility criteria applicable to highway design requirements.
- Selection/Evaluation process to be developed in year 1 and modified throughout permit term. Report results of program annually.

**SCHEDULE:**

Years 1-2: Collect information on Post-Construction BMPs.

Years 3-5: Assess feasibility of implementing reviewed BMPs into OTC-SWMP.

**MEASURABLE GOAL:**

Years 1-2: Assess and rank potential BMPs. Review costs, maintenance concerns, implementability, climate conditions and a means to address the effectiveness.

Years 3-5: Implement selected alternative BMPs.

**RESPONSIBLE PARTY:**

Maintenance Department

## 6. Pollution Prevention/Good Housekeeping for OTC Operations (MCM #6)

### a) The Permit Requirement

3.2.6.1.1 The OTC must develop and implement an operation and maintenance program that includes a training component which has the ultimate goal of preventing or reducing pollutant runoff from community operations; and

3.2.6.1.2 Using training materials that are available from Ohio EPA or other organizations, the OTC's program must include employee training to prevent and reduce storm water pollution from activities such as open space maintenance, fleet and building maintenance, storm water system maintenance, new construction and land disturbances.

### a) Pollution Prevention and Good Housekeeping Plan

The BMPs, measurable goals, and responsible parties in this Pollution Prevention and Good Housekeeping Plan are detailed in Tables 5a through 5m. In addition to Tables 5a through 5m, per Ohio EPA NPDES permit requirement 3.2.6.2, the OTC has documented its decision process with the following information required by the permit.

**3.2.6.2.1 Describe the OTC's operation and maintenance program to prevent or reduce pollutant runoff from its non-traditional MS4. The program must specifically list the operations that are impacted by this operation and maintenance program. The OTC must also include a list of industrial facilities it owns or operates that are subject to the Ohio EPA's Industrial Storm Water General Permit or individual NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to its MS4. Include the Ohio EPA permit number or a copy of the Industrial NOI for each facility.**

The permitted facilities under OTC's jurisdiction include approximately 56.9 miles of highway located in four Urbanized Areas across the state. The OTC's facilities are not subject to Ohio EPA's Industrial Storm Water General Permit or Individual NPDES Permits for discharges of storm water associated with industrial activity.

**3.2.6.2.2 Describe any government employee training program the OTC will use to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. Describe any existing, available materials that the OTC will use. Describe how this training program will be coordinated with the outreach program developed for the public education and involvement minimum measure and the illicit discharge minimum measure.**

Control measures for the Pollution Prevention and Good Housekeeping Program Plan included in Tables 5a through 5m will be incorporated into OTC's routine maintenance program. OTC maintenance personnel receive training and orientation seasonally in the procedures utilized for routine maintenance.

The OTC is a non-traditional MS4 and its target audience includes OTC employees, on-site contractors and individuals using OTC facilities subject to this permit.

### **3.2.6.2.3 The OTC's program description must specifically address the following areas:**

#### **3.2.6.2.3.1 Maintenance activities, schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants at OTC facilities.**

The OTC will address inspection procedures during scheduled maintenance activities. Also listed in Tables 5a through 5m are bridge maintenance, storm sewer maintenance and a spill response measures.

#### **3.2.6.2.3.2 Controls for reducing or eliminating the discharge of pollutants from streets, community parking lots, maintenance and storage yards, waste transfer stations, fleet maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas that OTC operates.**

Tables 5a through 5m summarize BMPs for all of the above maintenance issues that apply to OTC facilities. The OTC will review its operations to find ways to properly dispose of or recycle waste or water from its equipment maintenance operations. The OTC will implement an annual inspection of salt storage and site drainage at Turnpike facilities and will establish post-event clean up protocols.

#### **3.2.6.2.3.3 Procedures for the proper disposal of waste removed from OTC MS4 and OTC operations, including dredge spoil, accumulated sediments, floatables, and other debris.**

The OTC has identified vehicle maintenance BMPs in Tables 5a through 5m to address proper waste disposal. In addition, the OTC will assure proper waste disposal practices are in place.

#### **3.2.6.2.3.4 Procedures to ensure that new community flood management projects are assessed for impacts on water quality and that existing projects are assessed for incorporation of additional water quality protection devices and practices.**

This section is not applicable to the OTC.

#### **3.2.6.2.4 Who is responsible for overall management and implementation of the OTC pollution prevention/good housekeeping program and, if different, who is responsible for each BMP identified in this program.**

Tables 5a through 5m lists the Maintenance Department as the office with the overall responsibility for the implementation of each BMP.

#### **3.2.6.2.5 How you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.**

Each BMP listed in Tables 5a through 5m includes methods for evaluating the success of that BMP. The success of this MCM, of course, is dependent upon the outcome of the individual BMPs.

Table 5a.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Vegetation Control

- Mowing procedures
- Herbicide spraying

**RATIONALE:**

- Current practice is to cut 6 inches or lower. Review potential to raise mower height. Research has shown that increased mowing heights result in fewer weeds and greater total root mass (aids in water quality improvement).
- Current practice, handlers and applicators certified.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Establish mowing protocol and add to maintenance procedures. Review and report on environmentally friendly products available for vegetation control

Years 2-5: Implement mowing height policy. Add new environmentally friendly products and begin using them, if applicable. Document the results.

**MEASURABLE GOAL:**

Year 1: Complete the addition of mowing height protocol to maintenance procedures, and add any new herbicide products or policy modifications.

Years 2-5: Document uses of the practice and assess mowing height effectiveness. Document herbicide uses, locations and proper application techniques. Report on effectiveness.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5b.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Vehicle Fueling

- Field vehicles (tractors)
- Maintenance vehicles

**RATIONALE:**

Spill Prevention and Response Procedures are currently in place for Service Plazas. Modify to include field and maintenance vehicle fueling operations.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Develop fueling procedures for field and maintenance vehicles including documentation for spill prevention and response.

Years 2-5: Implement fueling procedures. Train OTC personnel in fueling procedures and documentation for spill prevention and response. Add spill response kits to field fueling vehicles.

**MEASURABLE GOAL:**

Year 1: Document the development of vehicle fueling procedures and documentation for spill prevention and response.

Years 2-5: Verify implementation of fueling procedures. Document number of employees trained in fueling and spill prevention and response procedures. Report on spill response kit purchase and replacement schedule.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5c.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Vehicle Maintenance

- Fluid recycling (transmission fluid, anti-freeze, oil)
- Battery and Tire recycling
- Vehicle wash area drainage & discharge
- Vehicle wash water collection/recycling
- Vehicle service bay drainage
- Oil/water separator maintenance
- Trench drain maintenance
- Floor drain connectivity

**RATIONALE:**

- Current practice includes vehicle fluid and tire recycling done at Maintenance Facilities and Service Plazas.
- Review current vehicle maintenance, vehicle washing area drainage and discharge locations.
- Certain types of recycled materials are already being documented. Draft procedures to include in SWMP.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Assess effectiveness of current recycling program and develop procedures to quantify results. Review current vehicle and service bay maintenance of oil/water separators. Inventory types of drainage systems at service bays, vehicle wash areas and storage locations.

Years 2-5: Track quantities of recycled materials. Follow current procedures for maintenance of oil/water separators, trench drains, sand filters and floor drains.

**MEASURABLE GOAL:**

Year 1: Verify review of current program and document methods to quantify results. Verify completion of procedural review and drainage system inventory and report results.

Years 2-5: Track quantities recycled per year and report annually. Document the schedule and completion of current maintenance procedures. Report on current OTC methods in place for recycling vehicle wash water including supplementing brine water needs.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5d.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Highway and Bridge  
Cleaning Operation

- Highway sweeping/cleaning
- Bridge sweeping/cleaning
- Collection of spoils or runoff
- Disposal of spoils
- Catch Basin cleanout

**RATIONALE:**

No current procedures or practices are documented or drafted as policy.

**IMPLEMENTATION**

**SCHEDULE:**

Years 1-5: Continue seasonal Highway and Bridge Cleaning Operation in the spring and fall and report annually. Develop procedures for the documentation of lane miles, amount of spoil collection and spoil disposal.

**MEASURABLE GOAL:**

Years 1-5: Verify the completion of seasonal Highway and Bridge Cleaning Operation. Document the use and effectiveness of new procedures for the documentation of lane miles, amount of spoil collection and disposal.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5e.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Ditch Maintenance

- Erosion and Sedimentation Controls for maintenance projects
- Disposal/storage procedures
- Slope, slips and slide repair procedures
- Dredging, cleaning and reshaping
- Side slope grading
- Natural channel – cleaning and debris removal
- Revise/incorporate training

**RATIONALE:**

- In dealing with highway run-off, natural ditches and slopes tend to be very effective water quality improvement systems.
- Review design specifications for ditch shape cross-sections, ditch bottom measurement and side slope angles.
- Review design criteria for ditch cross-sections and flow control devices.
- Review water quality benefits of naturalized controlled flow ditch systems.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Complete modifications to ditch maintenance procedures including guidance on Erosion and Sediment Controls for maintenance projects; disposal/storage procedures; slope, slip and slide repairs; dredging, cleaning, and reshaping; side slope grading; natural channel cleaning and debris removal; training.

Years 2-5: Implement new procedures.

**MEASURABLE GOAL:**

Year 1: Verify completion of modifications to ditch maintenance procedures. Identify exemptions to this program for ditch maintenance operations that are associated with maintaining grade line and hydraulic capacity.

Years 2-5: Document use and effectiveness of new procedures.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5f.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Litter Control

- Document procedures
- Frequency of pick-up
- Disposal procedures

**RATIONALE:**

- Effective program in place, need to review litter pick-up frequency. Modify to include amount of litter collected, recycled and separated (when practical).
- Current Litter Pick-up Program

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Review litter pick-up frequency and possible addition of a recycling program for separated materials. Review the feasibility of documenting quantities of litter collected separated and recycled.

Years 2-5: Continue litter collection program with the addition of the recycling program if feasible.

**MEASURABLE GOAL:**

Year 1: Document results of frequency, recycling and separation study.

Years 2-5: Document results of continuing litter collection program and the effectiveness of modifications made if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5g.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Storm Sewer System Maintenance

– System Types: Ultra Urban, Urban and Rural - Open ditches and closed pipe systems, catch basins, manholes and spoil material disposal.

- Document procedures
- System maps
- Training

**RATIONALE:**

- No overall Storm System Base Map exists.
- Storm System Base Map development for tracking cleaning and maintenance activities.

**SCHEDULE:**

Year 1: Develop Storm Sewer Maintenance Program including system maps to allow for scheduling, tracking and an evaluation of the feasibility of spoils collection and disposal.

Year 2: Train OTC personnel for the Storm Sewer Maintenance Program.

Year 3: Develop schedule and implement Storm Sewer Maintenance Program.

Years 4-5: Monitor effectiveness of Storm Sewer Maintenance Program.

**MEASURABLE GOAL:**

Year 1: Document development of Storm Sewer Maintenance Program.

Year 2: Document the number of employees trained.

Year 3: Report sewer maintenance schedule and work completed.

Year 4: Continue reporting on annual progress.

Year 5: Report projects completed and assess maintenance program effectiveness.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5h.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Winter Weather Management Program

- OTC Programs:
  - a) De-icing Program
  - b) Pre-Treatment Program
- Document salt storage procedures.
- Confirm storage perimeter drains connections and outfalls.
- Clean-up procedures:
  - a) for loading facility
  - b) accidental over-applications
- Develop a training program to include Handling, Storage, post event cleanup and storage drainage issues.

**RATIONALE:**

- Current practice, review procedures, update and modify where necessary.
- Develop procedures for loading and post-event clean-up.
- Current process not intended to review de-icing application rates or solution mixtures.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Modify Winter Weather Management Program to require annual inspection of salt storage and drainage and establish post-event clean-up protocols for loading facilities and on the highway. Review other state turnpikes for manual modifications. Document salt storage procedures and programs for snow and ice, storm watch pre-treatment. Survey and inventory location of salt storage perimeter drains.

Year 2: Develop and implement a training program for maintenance procedures. Begin inspections of salt storage locations and make repairs needed.

Year 3 Continue training program, inspecting salt storage facilities and making repairs needed.

Year 4-5: Continue training program, inspections and repairs. Review feasibility of drainage improvements at salt storage facilities.

**MEASURABLE GOAL:**

Year 1: Confirm modifications to Winter Weather Management Program. Assess other turnpike reviews.

Year 2: Report on results of review of salt storage perimeter drains. Document number of OTC personnel receiving training. Report on inspections and repairs completed at salt storage facilities.

Year 3: Document training, inspections, repairs and post storm event clean-up.

Years 4-5: Document training, inspections, repairs and post storm event results. Report on feasibility of drainage improvements at salt storage facilities.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5i.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

- BMP:** Spill Response/Clean-Up and Disposal –
- Emergency Response procedures
  - Facilities Spill Prevention Plan
  - Highway spill clean-up procedures
  - Document OTC procedures
  - Document chemical disposal procedures
  - Review fuel area drainage systems
  - Develop maintenance training
  - Review on-site chemical storage area drainage systems (stripping paint, vehicle fluids, etc.)

**RATIONALE:**

- Current practice follows all manufacture guidelines for handling and storage of chemicals.
- Develop spill clean-up procedures if not already in place for Toll Plazas, Service Plazas and Highway System.
- Document spills, record clean-up and disposal of clean-up materials.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Review Spill Response/Clean-up and Disposal procedures. Make modifications as appropriate. Review drainage near chemical storage facilities.

Year 2: Train OTC personnel in revised procedures. Update Spill Prevention Plans. Modify drainage or location of chemical storage facilities if study warrants.

Years 3-5: Implement new procedures and plans. Continue training program.

**MEASURABLE GOAL:**

Year 1: Document any modifications to Spill Response/Clean-up and Disposal procedures. Report results of drainage study.

Year 2: Document number of OTC employees trained. Document any relevant update of OTC Spill Prevention Plans. Verify modifications of drainage near chemical storage facilities if applicable.

Years 3-5: Document implementation of procedures and plans and report the number of OTC employees trained.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5j.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** OTC Maintenance Garage and Service Plaza Facilities – dumpster locations.

**RATIONALE:**

Current practice, develop procedures for locating/relocating dumpsters on OTC facilities with regards to site drainage.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Establish procedures for the location of OTC dumpsters to prevent undesirable discharges to storm sewers. Modify maintenance procedures accordingly.

Year 2: Train OTC personnel and implement modifications.

Years 3-5: Inspect dumpster condition and location.

**MEASURABLE GOAL:**

Year 1: Document modifications to maintenance procedures.

Year 2: Document number of OTC personnel receiving training. Document relocation of dumpsters if applicable.

Years 3-5: Report on numbers and results of dumpster inspections.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5k.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Maintenance Training (Water Quality).

**RATIONALE:**

Modify current OTC safety training procedures to include storm water/water quality information.

**IMPLEMENTATION**

**SCHEDULE:**

Years 1-2: Incorporate information about water quality and BMPs selected for Pollution Prevention and Good Housekeeping practices. Provide updated training as appropriate.

Years 3-5: Update information about BMPs as necessary. Continue providing maintenance training as appropriate.

**MEASURABLE GOAL:**

Years 1-5: Document and report annually on the development of the training program. Track and report annually on the number of personnel receiving the training.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 51.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** Fueling – Emergency Response and Reporting Procedures.

- Fuel Dispensing Facilities

**RATIONALE:**

Evaluate fuel dispensing facility plan and possibly incorporate in other current/potential practices (Spill Response, Vehicle Maintenance, etc.).

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Review procedures in Emergency Response and Reporting Procedures and modify if necessary to incorporate in other current/potential practices.

Year 2: Train OTC personnel in procedures if applicable.

Years 3-5: Implement new procedures and plans if applicable. Continue training program.

**MEASURABLE GOAL:**

Year 1: Document any modifications to Emergency Response and Reporting Procedures and incorporation in other practices.

Year 2: Document number of OTC employees trained.

Years 3-5: Document implementation of new procedures and plans, if applicable, and report on the number of OTC employees trained.

**RESPONSIBLE PARTY:**

Maintenance Department

Table 5m.  
Pollution Prevention and Good Housekeeping  
Minimum Control Measure

**BMP:** OTC – To implement process to evaluate and update new or alternative BMPs.

**RATIONALE:**

During BMP implementation OTC will assess and evaluate selected BMPs and review and evaluate alternative BMPs to be implemented.

**IMPLEMENTATION**

**SCHEDULE:**

Year 1: Review the USEPA National Menu of Best Management Practices for Storm Water Phase II and other applicable research on Pollution Prevention/Good Housekeeping BMPs. Establish feasibility criteria applicable to highway maintenance requirements.

Years 2-5: Develop and incorporate BMP specification if applicable.

**MEASURABLE GOAL:**

Year 1: Document the completion of feasibility criteria applicable to highway maintenance requirements.

Years 2-5: Document any use of new BMPs if applicable.

**RESPONSIBLE PARTY:**

Maintenance Department

### **E. Monitoring, Record keeping, and Reporting**

The OTC's monitoring, record keeping and reporting plans are outlined specifically for each of the BMPs listed in Tables 1 through 5. The OTC will maintain documentation for cooperative implementation agreements with state or local entities.

The OTC NOI and Storm Water Management Plan as well as copies of annual reports will be also maintained at the OTC's Main Office in Berea, Ohio. The OTC will provide annual reports of its progress in meeting its 5-year permit goals per Ohio EPA guidance.

**Ohio Turnpike Commission  
Storm Water Management Plan**

**Appendices**

## **Appendix 1**

**Appendix I. Ohio Turnpike Urbanized Areas by Milepost.**

<b>URBANIZED AREA</b>	<b>BEGIN MILEPOST</b>	<b>END MILEPOST</b>	<b>MILES</b>
Toledo, OH--MI	55.57	63.05	7.48
Toledo, OH--MI	63.08	64.73	1.65
Toledo, OH--MI	66.10	67.88	1.78
Lorain--Elyria, OH	137.22	138.39	1.17
Lorain--Elyria, OH	138.66	140.83	2.17
Lorain--Elyria, OH	142.61	148.00	5.39
Cleveland, OH	149.78	154.12	4.34
Cleveland, OH	155.68	169.79	14.11
Cleveland, OH	170.33	172.65	2.32
Cleveland, OH	179.46	179.79	0.33
Cleveland, OH	182.15	185.95	3.80
Cleveland, OH	186.80	189.42	2.62
Youngstown, OH--PA	209.61	210.58	0.97
Youngstown, OH--PA	222.72	230.93	8.21
Youngstown, OH--PA	232.00	232.56	0.56
Total Mileage			56.90

## **Appendix 2**

**Appendix 2. Ohio Turnpike Facilities Within Regulated Areas**

<b>Structure</b>	<b>Designation</b>	<b>Milepost</b>	<b>Location</b>	<b>County</b>	<b>Urban area</b>
Toll Plaza	TP 4	59.50	US 20	Lucas	Toledo, OH-MI
Service Plaza	SP	139.50	MIDDLE RIDGE	Lorain	Lorain-Elyria, OH
Service Plaza	SP	139.50	VERMILION RIVER	Lorain	Lorain-Elyria, OH
Toll Plaza	TP 7B	140.60	SR 58	Lorain	Lorain-Elyria, OH
Toll Plaza	TP 8A	142.80	I-90/SR 2	Lorain	Lorain-Elyria, OH
Toll Plaza	TP 8	145.50	SR 57	Lorain	Lorain-Elyria, OH
Toll Plaza	TP 9A	151.80	I-480	Lorain	Cleveland, OH
Toll Plaza	TP 9	152.20	SR 10	Lorain	Cleveland, OH
Administration Building	AB	159.4	Berea	Cuyahoga	Cleveland, OH
Toll Plaza	TP 10	161.80	I-71/US 42	Cuyahoga	Cleveland, OH
Toll Plaza	TP 13	187.20	I-480/SR 14	Portage	Cleveland, OH
Maintenance Building	MB	228.10	CANFIELD	Mahoning	Youngstown, OH-PA

## **Appendix 3**

## Phase II Regulated Areas Adjacent to the Ohio Turnpike

Phase II Entity	Contact Person	Contact Agency	Work Phone	Numeric Address	Street Name	City Name	Postal Code
Amherst	Milton Pommerancz P	Brunkhorst Engineering	(419) 898-9200	6672	West Harbor Road	Port Clinton	43452-
Amherst Township	David Urig	Amherst Township		7530	Oberlin Road	Elyria	44035-
Austintown Township	Michael B. Dockry	Austintown Township	(330) 792-8584	82	Ohltown Road	Austintown	44515-
Beaver Township	Ronald Kappler	Beaver Township		P.O. Box 598	1199 South Avenue	North Lima	44452-0598
Berea	Al Triotta	City of Berea	(440) 826-5814	11	bera Commons	Berea	44017-
Boardman Township	Curt B. Seditz	Boardman Township	(330) 726-4177	8299	Market Street	Boardman	44512-
Braceville Township	Brian T. Smith	Braceville Township	(330) 898-5600	636	Braceville-Robinson Rd. NE	Newton Falls	44444-
Brecksville	J. Courtney P.E.	City of Brecksville	(440) 526-4351	9069	Brecksville Road	Brecksville	44141-
Broadview Heights	Dennis Seifert	City of Broadview Heights	(440) 526-4357	9543	Broadview Road	Broadview Height	44147-
Canfield		City of Canfield	(330) 533-1101	104	Lisbon Street	Canfield	44406-
Cuyahoga County	Brian Driscoll	Cuyahoga County Engineer	(216) 348-3934	1370	Ontario Street # 1910	Cleveland	44113-
Elyria	John Hart P.E.	City of Elyria	(440) 322-5464	328	Broad Street	Elyria	44035-
Elyria Township	Richard Hutman			41835	Earlene Court	Elyria	44035-
Hudson	Steve Abbate	Village of Hudson	(330) 376-5778	46	Ravenna Street #s D-1, D-2	Hudson	44236-
Lorain County	Kenneth Carney	Lorain County Engineers O	(440) 329-5386	247	Hadaway Street	Elyria	44035-
Lucas County	Keith Earley	Lucas County	(419) 213-4540	100	Government Center	Toledo	43604-2258
Mahoning County	Tim Burkert	Mahoning County	(330) 799-1581	940	Bearsden Road	Youngstown	44514-
Maumee		City of Maumee	(419) 897-7100	400	Conant Street	Maumee	43537-
Newton Township	Richard Houck		(330) 872-7161	P. O. Box 211		Newton Falls	44444-
North Ridgeville	Thomas Beutler	City of North Ridgeville	(440) 353-0842	7307	Avon Beldon Road	North Ridgeville	44039-

Phase II Entity	Contact Person	Contact Agency	Work Phone	Numeric Address	Street Name	City Name	Postal Code
North Royalton	Chuck Altoff	City of North Royalton	(440) 237-4300	13834	Ridge Road	North Royalton	44133-
Olmsted Falls	Joseph Schaller P.E.	City of Olmsted Falls	(440) 235-5550	26100	Bagley Road	Olmsted Falls	44138-
Olmsted Township	Dan Gargas		(440) 235-3051	26900	Cook Road	Olmsted Townshi	44138-
Perrysburg Township	Nathan Hagemeister	Perrysburg Township		26609	Lime City Road	Perrysburg	43351-
Portage County	Jennifer Eckroate	Portage County SWCD	(330) 297-7633	6970	State Route 88	Ravenna	44266-
Richfield	Roger Swan	Village of Richfield	(330) 659-4700	4410	W. Streetsboro Road	Richfield	44286-
Richfield Township	Laurie Pinney	Richfield Township	(330) 659-2605	3905	Broadview Rd.	Richfield	44286-
Springfield Township	Bob Buennig	Springfield Township	(419) 865-0230	7617	Angola Road	Holland	43528-
Streetsboro		City of Streetsboro	(330) 626-4942	9184	State Route 43	Streetsboro	44241-
Strongsville	Mark Suryak	City of Strongsville	(440) 238-5720	18688	Royalton Road	Strongsville	44136-
Summit County	Jay Mosley	Summit County	(330) 643-8374	538	E. South Street	Akron	44311-
Toledo		City of Toledo	(419) 245-1060		Government Cntr. Suite # 2140	Toledo	43604-
Trumbull County	John Woolard	Trumbull Co. SWCD	(330) 637-2056	520	W. Main St. # 3	Cortland	44410-
Wood County	Anthony Allion	Wood County Engineers Of	(419) 354-9060	1	Courthouse Square	Bowling Green	43402-

## **Appendix 4**

# Appendix 4

## Service Providers Within the Ohio Turnpike Regulated Areas

Service Provider	Contact Person	Telephone Number	County	Numeric Address	Address	City	Zip Code
Cuyahoga Health	Harry Stark	(216) 337-0342	Cuyahoga	1375	Euclid Ave.	Cleveland	44115-1882
Cuyahoga SWCD	Kristyn Albro	(216) 524-6580	Cuyahoga	6100	West Canal Road	Valley View	44124-
Lorain Health	James Boddy	(440) 322-6367	Lorain	9880	S. Murray Ridge Rd.	Elyria	44035-
Lucas Health	Michael Oricco	(419) 213-4102	Lucas	635	N. Eric St.	Toledo	43624-
Mahoning Health	Rick Setty	(330) 270-2855	Mahoning	50	Westchester Drive	Youngstown	44515-
Mahoning SWCD/AWARE	Heather Moser	(330) 533-2231	Mahoning	490	S. Broad Street	Canfield	44406-
NEFCO	Eric Akin	(330) 252-0337	Summit	180	E. South Street	Akron	44311-
NOACA	Andy Vidra	(216) 241-2414	Cuyahoga	1299	Superior Avenue	Cleveland	44105-
Portage County SWCD	Jennifer Eckroate	(330) 297-7633	Portage	6970	State Route 88	Ravenna	44266-
Portage Health	Duwayne Porter	(330) 296-9919	Portage	449	S. Meridian St.	Ravenna	44266-
Summit County Health	Bob Hafenager	(330) 926-5632	Summit	1100	Graham Road Cir	Stow	44224-2992
Trumbull County SWCD	John Woolard	(330) 637-2056	Trumbull	520	W. Main Street #3	Cortland	44410-

Service Provider	Contact Person	Telephone Number	County	Numeric Address	Address	City	Zip Code
Trumbull Health	Frank Migliozzi	(330) 675-2489	Trumbull	176	Chestnut Ave. NE	Warren	44483-
Wood Health	Bridley Espen	(419) 352-8402	Wood	1840	E. Gypsy Lane Road	Bowling Green	43402-

## **Appendix 5**

## **Appendix 6**

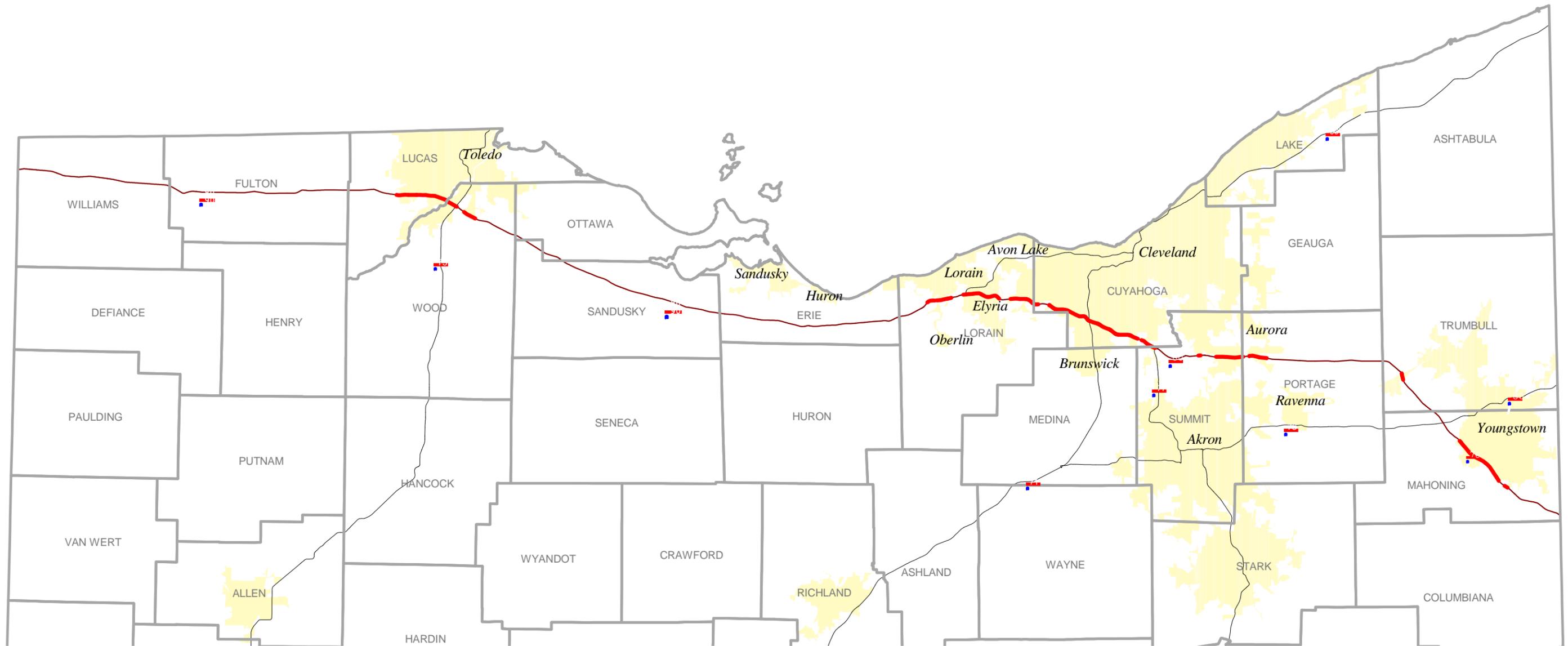


Figure 1  
Ohio Turnpike Commission and Urbanized Areas



Ohio Turnpike  
Commission  
Storm Water Plan

LEGEND



2000 Census  
Urbanized Areas



Ohio Turnpike



Regulated  
Ohio Turnpike



1 : 44,3520

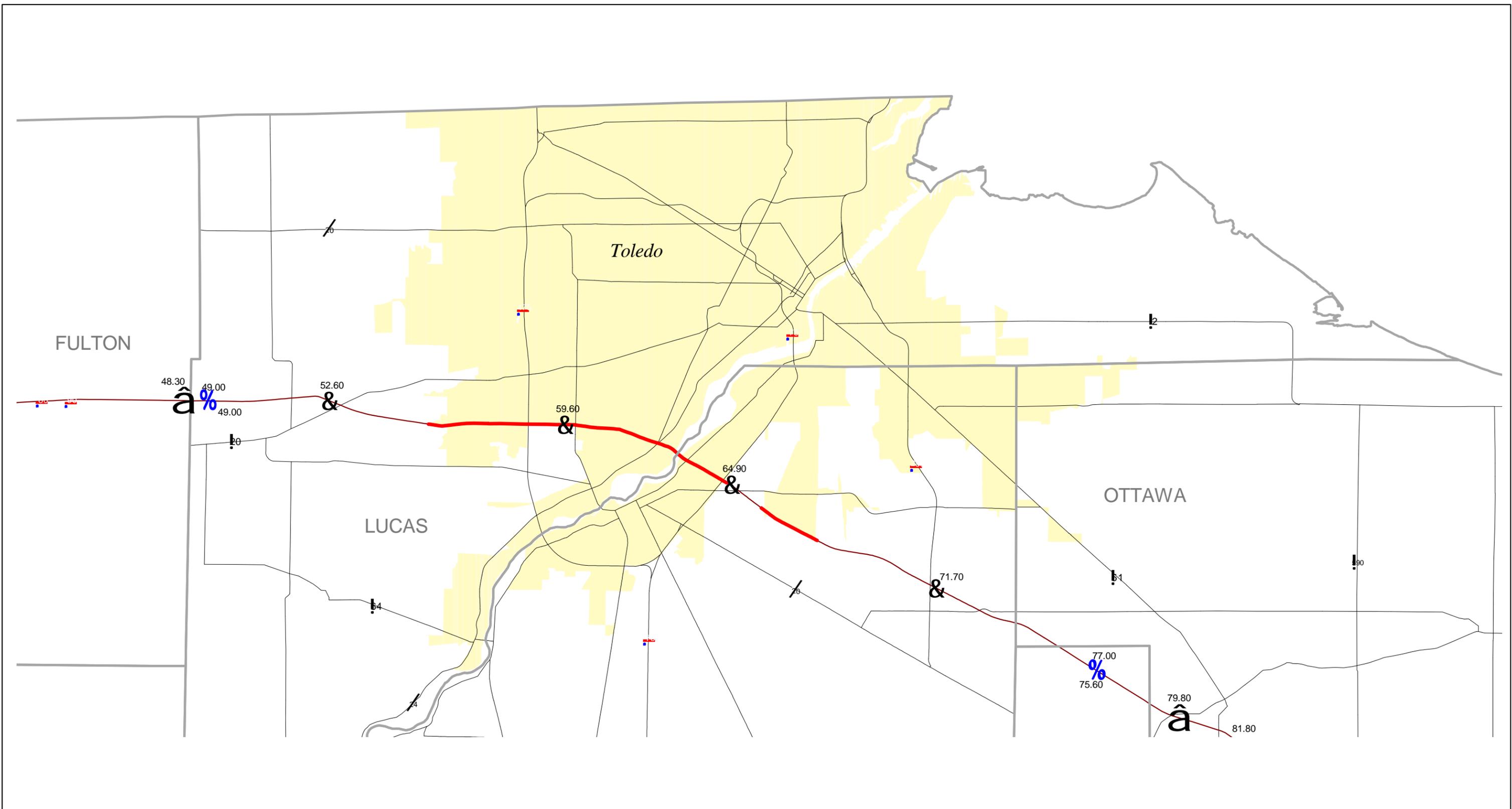


Figure 2  
Urbanized Areas - Toledo



Ohio Turnpike  
Commission  
Storm Water Plan

LEGEND

 2000 Census  
Urbanized Areas

 Ohio Turnpike  
 Regulated  
Ohio Turnpike

 Maintenance  
Building       Toll Plazas  
 Service Plaza (in pairs)



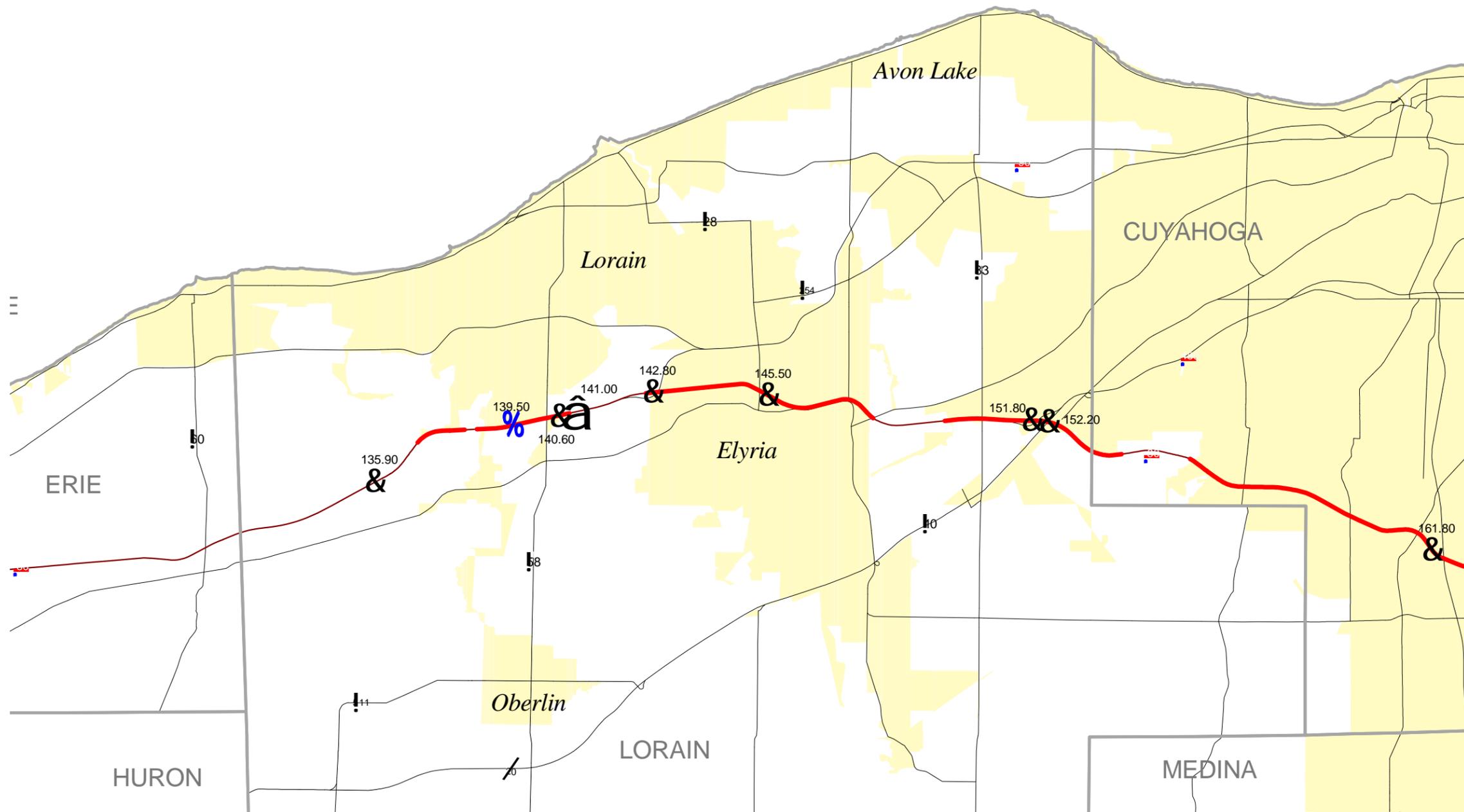
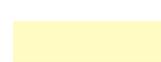


Figure 3  
Urbanized Areas - Lorain - Elyria



Ohio Turnpike  
Commission  
Storm Water Plan

LEGEND

 2000 Census  
Urbanized Areas

 Ohio Turnpike  
 Regulated  
Ohio Turnpike

 Maintenance  
Building

 Service Plaza (in pairs)

 Toll Plazas



1 : 80,000

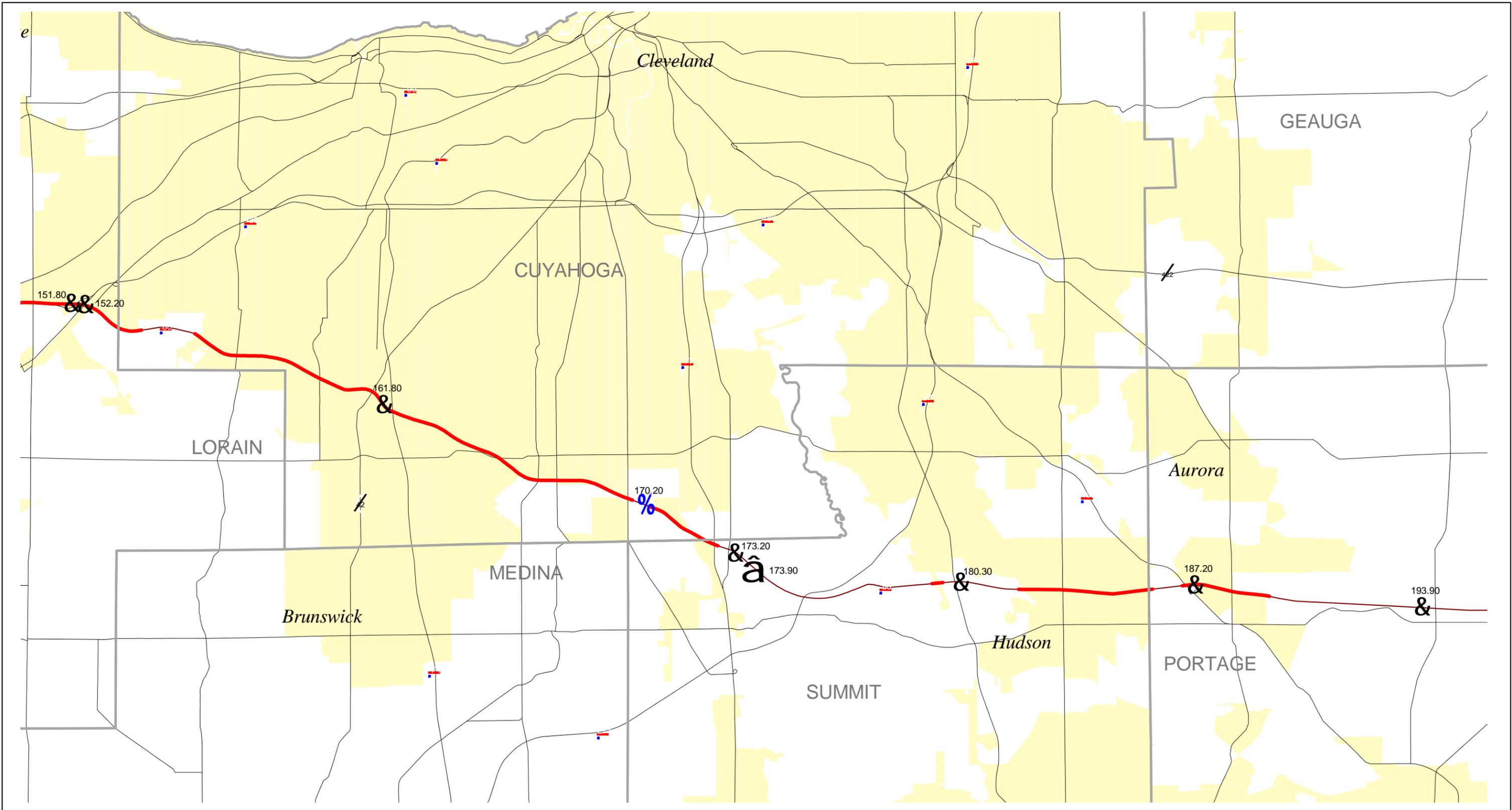
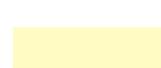


Figure 4  
Urbanized Areas - Cleveland



Ohio Turnpike  
Commission  
Storm Water Plan

LEGEND

 2000 Census  
Urbanized Areas

 Ohio Turnpike  
 Regulated  
Ohio Turnpike

 Maintenance  
Building       Toll Plazas  
 Service Plaza (in pairs)



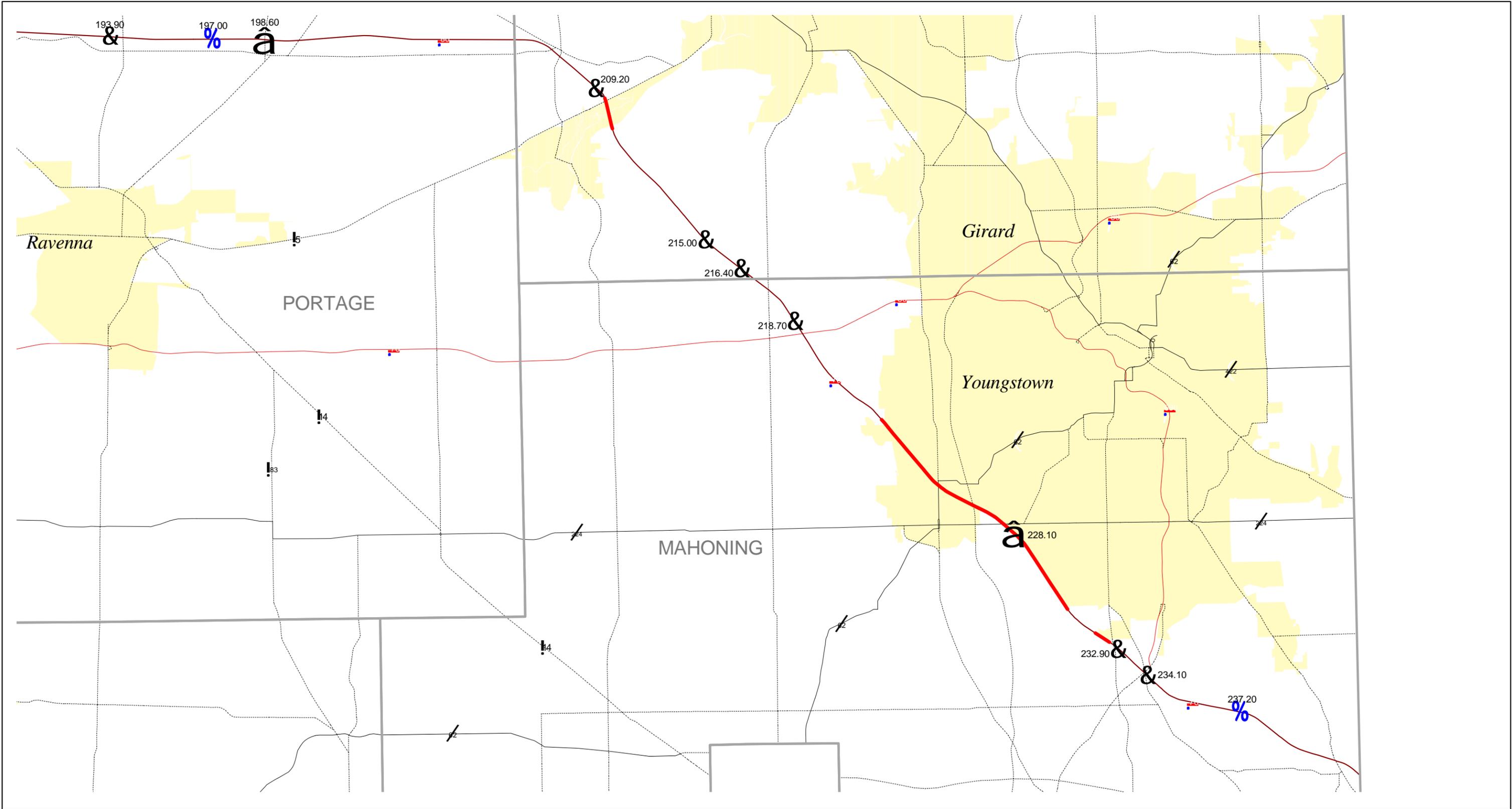
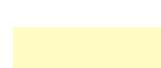


Figure 5  
Urbanized Areas - Youngstown



Ohio Turnpike  
Commission  
Storm Water Plan

LEGEND

 2000 Census  
Urbanized Areas

 Ohio Turnpike  
 Regulated  
Ohio Turnpike

 Maintenance  
Building       Toll Plazas  
 Service Plaza (in pairs)

