

CITY of LANCASTER



STORMWATER POLLUTION PREVENTION PLAN

January 2006
Revised October 2006

Introduction

The City of Lancaster, Ohio is located in Fairfield County approximately 30 miles southeast of Columbus. According to the 2000 U.S. Census, the population is 35,335 people within 17 square miles. Lancaster is located on the Hocking River and is traversed by several smaller tributaries including, Hunter Run, Baldwin Run, Ewing Run, Feters Run, Pleasant Run and Tarhe Run. Four smaller streams identified as Lateral A, Lateral B, Lateral C and Lateral D also discharge to the Hocking River. A portion of the abandoned Hocking Canal is tributary north of the City.

In December 2002 the Ohio Environmental Protection Agency, in accordance with the United States Environmental Protection Agency Phase II stormwater regulations, identified the City of Lancaster as a governmental jurisdiction to be considered for inclusion into the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit program. On January 6, 2006, the Director of the Ohio Environmental Protection Agency filed a public notice of his intention to designate the City of Lancaster for inclusion into the MS4 permit program under Ohio Administrative Code 3745-39-03(F)(1)(a). Once designated, the City of Lancaster is required to submit a permit application within 180 days.

As part of the permit application, the City of Lancaster must develop and submit a Storm Water Pollution Prevention Plan (SWPPP) that meets the requirements of Ohio Administrative Code 3745-39-03(C). This SWPPP has been developed based on the needs of the City of Lancaster and the requirements of the State of Ohio for general permit for MS4 communities and includes the following Minimum Control Measures

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff
- Post Construction Stormwater Management
- Pollution Prevention for Municipal Operations

System Description

The City of Lancaster maintains approximately 146 miles of roadway (excluding State and Federal Routes), 78 culverts, 314,731 feet of storm sewer, and 87,784 feet of combined sewer as of October 2005. The combined sewer system and discharges are covered under NPDES permit 4PD00001*ID issued to the City of Lancaster. The system covers approximately 17 square miles including and overlapping the combined sewer system. A map of the sewer system is found in Appendix A.

Public Education and Outreach

To implement a public education program, the City of Lancaster will perform the following activities:

- Implement Stormwater Education Programs
- Provide Annual Stormwater Information through brochures
- Provide Stormwater Information through the City website
- Develop an Adopt-A-Road Program
- Encourage Special Cleanup Efforts by Local Groups
- Provide Stormwater Information to Contractors

These programs are described below:

Stormwater Education Programs

Local public and private schools grades K-12 will be encouraged to develop stormwater education programs through the stormwater utility credit program. Schools will be offered three options in developing education programs. The first option is to implement stormwater education through Project Wet, Project Wild or other approved environmental education material. The second option is to hold special stormwater activities such as Science Fairs or Special Cleanups. The third option is to establish a partnership with the stormwater program to provide in-kind services in the production of brochures, videos or public service announcements.

- Legal Authority-Lancaster Codified Ordinance 918.13(a)
- Goal-100% school participation with 15% of the students receiving education per year.
- Schedule Established Program 2004
- Enroll Schools 2004-2011
- Approve Education Programs 2004-2011
- Receive Annual Reports 2005-2011

Annual Stormwater Information Brochure

Information on stormwater issues will be provided to all utility customers through an annual brochure inserted in the utility bill. The brochure will provide information on stormwater pollution and steps that the homeowner can take to reduce pollution. Additional copies of the brochure will be available to the public through displays at various city facilities.

- Legal Authority-NA
- Goal-Distribute 13,000 brochures annually
- Schedule Develop Brochure 2004-2011
- Insert Brochure in Utility Bills 2004-2011

Provide Stormwater Information through the City website

A website for the Stormwater Department has been developed. The website includes information on the Stormwater Utility, educational materials for homeowners along with a children's activity section.

Legal Authority-NA
Goal-1300 website hits per year
Schedule Developed Website 2004
 Update Website 2004-2011

Develop An Adopt-A-Road Program

The City has developed an Adopt-A-Road program for businesses and service groups. The program will allow groups to adopt a one mile section of roadway within the City for a three year period. The group will be required to conduct three cleanup events a year during the adoption program.

Legal Authority-Lancaster Codified Ordinance 918.13(d)
Goal-Recruit 15 groups to adopt roadways within the City drainage system
Schedule Developed Adopt-A-Road Program 2004
 Recruit Groups 2004-2011
 Annual Roadway Cleanups-2005-2011
 Annual Reports from Groups-2005-2011

Encourage Special Cleanup Efforts by Local Groups

In addition to the Adopt-A-Road Program, groups will be encouraged to conduct special cleanups to reduce stormwater pollution. These cleanups may include appliance and tire collection, Household Hazardous Waste Collections, Stream Cleanups, Bikepath Cleanup and Special Event Cleanups. Special Cleanups will be promoted on the Stormwater website.

Legal Authority-918.13(d)
Goal-Three Special Cleanups per year
Schedule Coordinate with Groups on Cleanups 2004-2011
 Post Information on Website-2006-2011
 Receive reports on Cleanup Efforts-2004-2011

Provide Stormwater Information to Contractors

Construction runoff is a significant source of stormwater pollution. A specific effort will be made to educate contractors regarding stormwater runoff issues. A brochure dealing with stormwater management from construction sites will be developed for contractors.

The Brochure will be distributed as part of the annual contractor registration materials for all contractors. In addition, City contractors will receive the brochure as part of the preconstruction conference materials.

Legal Authority-NA

Goal-Distribute 200 brochures annually

Schedule Develop Brochure 2006

Provide Brochure with Annual Registration 2006-2011

Provide Brochure to City Contractors as part of Preconstruction Conference 2006-2011

Public Involvement

To implement a public involvement program, the City of Lancaster will perform the following activities:

Create a Citizen Advisory Committee

Comply with Public Notice Requirements

Post Annual Report on Website for Public Comment

These programs are described below:

Create a Citizen Advisory Committee

To assure public involvement in the stormwater management program, a Citizen Advisory Committee was created. The committee includes a wide range of stakeholders and stormwater experts including:

City Council

Retail

Churches

Schools

Industry

County Government

Developers

Consulting Engineers

Soil and Water Conservancy District

Builders

Realtors

Chamber of Commerce

Citizen at Large

Hospital

Agriculture

The Citizen Advisory Committee reviewed the stormwater management program prior to approval by City Council and reviews all major program changes.

Legal Authority-NA
Goal-Meetings prior to program changes
Schedule Created Citizen Advisory Committee 2003
Program Change Meetings 2004-2011

Comply with Public Notice Procedures

The City of Lancaster is a subdivision of the State of Ohio and must comply with the Ohio Revised Code 121 regarding public meetings.

Legal Authority-Ohio Revised Code 121
Goal-NA
Schedule NA

Post Annual Report on the City Website for Public Comment

As part of the NPDES permit, the City of Lancaster will be required to file an annual report with the Ohio EPA on the progress and compliance. A copy of the Annual report will be posted on the Stormwater website for public comment for a period of at least 30 days. The public will be allowed to review the report and file comments with the City. Upon completion of the public comment period, relevant comments shall be reviewed and incorporated into the report for submission to the Ohio EPA. A copy of the annual report shall also be available at the Mayor's Office, City Engineer's Office and Lancaster Branch of the Fairfield County District Library for review. All Citizen Advisory Committee members shall also receive a copy of the report.

Legal Authority-Ohio Revised Code 121
Goal-Distribute 50 copies of the draft annual report
Schedule Draft Annual Report 2007-2011
Distribute Annual Report 2007-2011
Receive Public Comment 2007-2011
Submit Annual Report to Ohio EPA 2007-2011

Illicit Discharge Detection and Elimination

To implement a program for Illicit Discharge Detection and Elimination, the City of Lancaster will perform the following activities:

Update the sewer map
Convert sewer map to GIS format
Update drainage ordinance
Develop and implement plan to detect non-stormwater discharges
Investigate Home Sewage Systems discharging to system
Inform public of hazards associated with illegal discharges

These activities are described below:

Update the sewer map

An AutoCAD map of the sewer system currently exists. This map is updated based on as-built plans as necessary.

- Legal Authority-Lancaster Codified Ordinance 913.01
- Goal-Annual update of map to show all sewer lines
- Schedule Created base sewer map 2004
- Update Map as changes occur 2004-2011
- Print new map annually 2004-2011

Convert sewer map to GIS format

In order to coordinate sewer information with other Geographic Information, the sewer map will be converted to a GIS based map. This will allow sewer information to be coordinated with other information including property owners, land use, utility billing, industrial pretreatment, etc.

- Legal Authority-Lancaster Codified Ordinance 913.01
- Goal-Creation of GIS based sewer map
- Schedule Develop Geodata Base for Sanitary, Storm and Combined Sewers
- 2006
- Develop Pilot Mapping Program 2006
- Begin Sewer Mapping 2006
- Complete Sewer Mapping 2008
- Maintain Sewer Mapping 2008-2011

Update drainage ordinance

The current drainage ordinance will be updated to regulated non-stormwater discharges to the sewer system and implement enforcement actions.

- Legal Authority-Lancaster Codified Ordinance 913
- Goal-Creation of an updated drainage ordinance
- Schedule Drafted revised ordinance 2005
- Submitted revised ordinance to Law Director for review 2005
- Revise ordinance per Law Director comments 2006
- Submit revised ordinance to City Council 2006
- City Council complies with Public Notice requirements 2006
- City Council enacts ordinance 2006
- Ordinance becomes effective 2006

Develop and implement plan to detect non-stormwater discharges

Upon completion of the sewer mapping, the City will develop a plan to detect non-stormwater discharges. The plan will include visual inspection of storm sewer outlets to identify those outlets with non-stormwater and non-regulated discharges. Once discharges are identified, field tests will be conducted to determine the likely type of non-stormwater discharge. The sewer map will be evaluated to determine potential sources of the discharge based on land use. If necessary, a camera will be used to locate the discharge in the sewer system. Once the discharge source is identified, the drainage ordinance will be implemented.

Legal Authority-Lancaster Codified Ordinance 913.06

Goal-Evaluate 25% of the discharge locations per year

Schedule Develop Plan Framework 2007

Evaluate Discharges on Hocking Mainstem and Lateral A&B 2008

Evaluate Discharges on Baldwin Run and Lateral C&D 2009

Evaluate Discharges on Pleasant, Ewing and Fetter Run 2010

Evaluate Discharges on Hunter and Tarhe Run 2011

Enforcement Action based on evaluations 2008-2011

Develop and implement plan to identify home sewage treatment systems

Upon completion of the sewer mapping, the City will develop a plan to identify home sewage treatment systems discharging to the stormwater management system. The plan will include cross references with the stormwater billing system to determine stormwater accounts without sewer service, investigation into the type of sewage system on the property, mapping of locations of these systems, field inspections to determine the outfall location. A map of such systems will be prepared. If failing systems are encountered, the property will be referred to the local Health Department or Ohio EPA as appropriate.

Legal Authority-Unknown the legal authority for home sewage systems rests with the Health Department and the Ohio EPA

Goal-Identify all occupied properties with HSTS

Schedule Develop Plan Framework 2009

Map potential properties based on billing system 2010

Investigate discharge locations 2010

Finalize map 2010

Refer failing systems to Health Department and Ohio EPA 2011

Inform public of hazards associated with illegal discharges

The public will be informed of the hazard of illegal discharges through program brochures developed in conjunction with the public education program. In addition, inlet

and manhole castings will be replaced with new castings that incorporate anti-dumping markings. All new infrastructure installations will be specified with these castings.

Legal Authority-NA

Goal-Install 25 replacement castings per year

Schedule Revise Standard Drawings to include Anti Dumping Wording 2002
 Require New Plans to include "Lancaster" castings 2003-2011
 Install replacement castings 2004-2011

Construction Site Stormwater Runoff

A program to address construction site stormwater runoff will be implemented. The program will include the following activities

Revision of Erosion and Sediment Control Ordinance
Site plan reviews
Complaint Investigation
Site Inspection

These activities are described below:

Revision of Erosion and Sediment Control Ordinance

An ordinance has been developed to require erosion and sediment control on construction sites including redevelopment sites. The ordinance includes enforcement actions for violations.

Legal Authority-Lancaster Codified Ordinance 919

Goal-Development of Erosion and Sediment Control Ordinance

Schedule Drafted revised ordinance 2002
 Submitted draft ordinance for interested party review 2002
 Submitted revised ordinance to Law Director for review 2002
 Revised ordinance per Law Director comments 2003
 Submitted revised ordinance to City Council 2003
 City Council complied with Public Notice requirements 2003
 City Council enacted ordinance 2003
 Ordinance became effective 2003

Site plan reviews

A procedure for site plan reviews that incorporate erosion and sediment control has been developed as required by the erosion and sediment control ordinance. Site plans are reviewed in conjunction with subdivision plat approval, zoning approval or building plan approval. In the case of new subdivision, construction plans are reviewed as part of the platting process. For new commercial facilities, site plans are reviewed as part of the

zoning review for the building permit. For new residential construction, the initial erosion and sediment control is reviewed with the subdivision. Individual lots are reviewed during the building permit process and site specific erosion and sediment control requirements are developed.

Legal Authority-Lancaster Codified Ordinance 919.15 and 1109.04
Goal-Review 100% of site plans for compliance with erosion and sediment control
Schedule Review of subdivision plans 2003-2011
 Review of site plans for zoning permits 2003-2011
 Review of Plot and Grading plans for building plans 2004-2011

Complaint Investigation

Stormwater construction complaints are directed to the stormwater management program for investigation and correction. The complaint is documented and sent to the stormwater inspector for review. The stormwater inspector will make contact with the contractor and the developer for corrective action. If action is not taken, then the complaint is referred for enforcement under the erosion and sediment control ordinance.

Legal Authority-Lancaster Codified Ordinance 919.16
Goal-Review 100% of complaints received
Schedule Hired Stormwater Inspector 2004
 Developed Inspection Report 2004
 Developed Complaint Form 2004
 Investigate Complaints 2004-2011

Site Inspection

Construction sites will be inspected on a weekly basis and after significant rainfall events by the stormwater inspector for compliance with the approved stormwater management plan. An inspection report will be completed and sent to the appropriate project official for their use. Failure to comply with the approved stormwater management plan will result in enforcement action under the Erosion and Sediment Control Ordinance.

Legal Authority-Lancaster Codified Ordinance 919.16
Goal-Complete Weekly inspections of construction sites
Schedule Hired Stormwater Inspector 2004
 Developed Inspection Report 2004
 Perform Weekly Inspections 2004-2011
 Send Inspection Reports to Developer or Designee-2004-2011
 Take Enforcement Action for Non-conformance-2004-2011

Post Construction Stormwater Management

A program to address post construction site management will be implemented. The program will include the following activities

- Revision of Erosion and Sediment Control Ordinance
- Protection of Stream Corridors through Flood Damage Prevention Ordinance
- Establishment of Green Space through Public Sites and Open Spaces Ordinance
- Site plan reviews
- Complaint Investigation
- Site Inspection.

These activities are described below:

Revision of Erosion and Sediment Control Ordinance

An ordinance was developed to require post construction stormwater management in developments including redevelopment sites. The ordinance includes enforcement actions for violations.

- Legal Authority-Lancaster Codified Ordinance 919
- Goal-Development of Erosion and Sediment Control Ordinance
- Schedule
 - Drafted revised ordinance 2002
 - Submitted draft ordinance for interested party review 2002
 - Submitted revised ordinance to Law Director for review 2002
 - Revised ordinance per Law Director comments 2003
 - Submitted revised ordinance to City Council 2003
 - City Council complied with Public Notice requirements 2003
 - City Council enacted ordinance 2003
 - Ordinance became effective 2003

Protection of Stream Corridors through Flood Damage Prevention Ordinance

The City of Lancaster protects stream corridors through the enforcement of the Flood Damage Prevention Ordinance. This ordinance prohibits development in the FEMA regulated floodway without extensive study. In addition, development within the flood fringe is prohibited without a development permit. As part of the development permit, the project is reviewed for erosion and sediment control.

- Legal Authority-Lancaster Codified Ordinance 1331
- Goal-Require development permits for all sites within the FEMA regulated areas
- Schedule
 - Enforcement of Ordinance 2006-2011
 - Revise Ordinance upon completion of revised mapping est 2009
 - Review Development permits 2006-2011
 - Inspect Construction 2006-2011

Establish Green Space through the Public Sites and Open Space Ordinance

The City of Lancaster has established a program to acquire green space through the Public Sites and Open Spaces ordinance. This ordinance requires that developers of residential properties set aside green space or pay into a fund to purchase green space. The amount of green space to be set aside is determined by the population of the proposed development. The Public Sites and Open Space ordinance is enforced as part of the platting or building permit process. Actual management of the Public Sites and Open Space fund is the responsibility of the Lancaster Park Board.

Legal Authority-Lancaster Codified Ordinance 1109.12
Goal-Establish funding for 0.005 acres of land per new person
Schedule Enforcement of Ordinance 2006-2011
Review of proposed green space 2006-2011
Collection of fees 2006-2011

Site plan reviews

A procedure for site plan reviews of post construction stormwater management has been developed as required by the City of Lancaster subdivision regulations and the erosion and sediment control ordinance. Site plans are reviewed in conjunction with subdivision plat approval, zoning approval or building plan approval. In the case of a new subdivision, construction plans are reviewed as part of the platting process. For new commercial facilities, site plans are reviewed as part of the zoning review for the building permit.

Legal Authority-Lancaster Codified Ordinance 919.15, 1105 and 1109.05
Goal-Review 100% of site plans for compliance with erosion and sediment control
Schedule Review of subdivision plans 2003-2011
Review of site plans for zoning permits 2003-2011

Complaint Investigation

Stormwater management complaints are directed to the stormwater management program for investigation and correction. The complaint is documented and sent to the stormwater inspection for review. The stormwater inspector will make contact with the contractor and the developer for corrective action. If action is not taken, then the complaint is referred for enforcement under the erosion and sediment control ordinance.

Legal Authority-Lancaster Codified Ordinance 919.16
Goal-Review 100% of complaints received
Schedule Hired Stormwater Inspector 2004
Developed Inspection Report 2004
Developed Complaint Form 2004
Investigate Complaints 2004-2011

Site Inspection

Post construction stormwater management facilities are inspected on an annual basis for compliance with the approved stormwater management plans. An inspection report will be completed and sent to the appropriate project official for their use. Failure to comply with the approved stormwater management plan will result in enforcement action under the Erosion and Sediment Control Ordinance.

Legal Authority-Lancaster Codified Ordinance 919.16
Goal-Complete Annual Inspections on Identified Post Construction Facilities
Schedule Hired Stormwater Inspector 2004
 Developed Inspection Report 2004
 Perform Annual Inspections 2004-2011
 Send Inspection Reports to Responsible parties-2004-2011
 Take Enforcement Action for Non-conformance-2004-2011

Pollution Prevention for Municipal Operations

The City of Lancaster will develop a pollution prevention program for municipal operations to reduce the impact on stormwater discharges. The program will include the following items:

Development of Site Specific Stormwater Pollution Prevention Plans
Employee Training
Maintenance of Municipal Owned BMP's
Operation and Maintenance of the Stormwater Management System

Site Specific Stormwater Pollution Prevention Plans

A stormwater pollution prevention plan (SWPPP) will be developed for each property under the control of the City of Lancaster and included in this permit. The SWPPP will include an evaluation of stormwater pollution sources on the property as well as steps to eliminate or minimize stormwater pollution. The plan will also include requirements for reporting, recordkeeping and employee training. Stormwater discharges related to the Lawrence Street Wastewater Treatment Plant and the Stonewall Cemetery Landfill are permitted under individual NPDES permits and are the only City owned properties that require an individual NPDES permit. (Note: Parks and Open Spaces are under the jurisdiction of the Lancaster Board of Parks which is an independent government agency.)

Legal Authority-NA

Goal-Develop SWPPP for each City Property under the control of the City of Lancaster

Schedule Developed SWPPP for City Hall and City Hall Annex 2004
Developed SWPPP for Department of Transportation 2005
Develop SWPPP for Water, Sanitation, and Municipal Gas 2006
Develop SWPPP for Police and Fire 2007
Develop SWPPP for Remaining Properties 2008
Implement completed plans 2004-2011

Employee Training

After a SWPPP is developed, employees in each applicable department will receive annual training on stormwater pollution reduction. Training will be provided by the identified source and will include training materials available from federal, state and local agencies.

Legal Authority-NA

Goal-Annual Training for each City Department based on SWPPP

Schedule Annual Training by each department 2005-2011
Submit Training report 2006-2011

Maintenance of Municipal Owned BMP's

Several Municipal properties have post construction stormwater management BMP's. These facilities require normal inspection and maintenance. Municipal post construction facilities are handled under the construction and post construction program. The City will provide an annual inspection and correction report to the responsible department for action.

Legal Authority-Lancaster Codified Ordinance 919.16

Goal-Complete Annual Inspections on Identified Post Construction Facilities

Schedule Hired Stormwater Inspector 2004
Developed Inspection Report 2004
Perform Annual Inspections 2004-2011
Send Inspection Reports to Responsible parties-2004-2011
Take Enforcement Action for Non-conformance-2004-2011

Operation and Maintenance of Stormwater Management System

Proper operation and maintenance of the stormwater management system reduces the risk of water quality problems. Operation and maintenance of the MS4 is primarily the responsibility of the Lancaster Department of Transportation (LDOT). Normal operation and maintenance duties include: street sweeping, inlet cleaning, sewer line cleaning, ditch maintenance and pump station management. LDOT is also responsible for identifying capital repairs and assisting in repair work.

Legal Authority-ORC 715.40

Goal-Allocate 10,000 man-hours for stormwater management system maintenance

Schedule Assign stormwater maintenance staff 2004

On-going operation and maintenance 2004-2011

Stormwater Contact

The stormwater management program is implemented and coordinated by the Engineering Department-Stormwater Management Program under a management agreement between City Departments and Divisions. The contact for the program is

Denise L. Crews, P.E.
Stormwater Coordinator
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**APPENDIX A
SEWER MAP**