



**NPDES Storm Water  
Management Program Plan  
for 2009-2013**

*2011 Update*

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# EXECUTIVE SUMMARY

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The following document is the Village of Obetz' plan for its Storm Water Management Program (SWMP). The purpose of the Storm Water Management Program is to comply with the Ohio Environmental Protection Agency's (OEPA) Small Municipal Separate Storm Sewer System (MS4) program administered through a National Pollution Discharge Elimination System (NPDES) general permit effective from January 30, 2009 through December 2013.

Implementation of the SWMP is the responsibility of the Village of Obetz. This plan known as the Storm Water Management Program Plan (SWMPP) provides communications and guidance to elected officials, Village staff, community partners such as the Franklin Soil and Water Conservation District (FSWCD), businesses, and residents. The SWMPP is reviewed regularly and updated as needed. Updates are forwarded to the OEPA each year with the annual report.

Public input and support is always welcome and necessary in order to make the program a success. A primary goal of plan is to make the public aware of Obetz' water resources and the important role everyone has in preserving them. Through public education and involvement, the Village will strive to reinforce this message and provide opportunities for individuals to become involved in the community. While implementing this plan, Obetz will communicate with all businesses and households and reach out to specific groups that include: students, developers, businesses, outdoor enthusiasts, and senior citizens. To comply with the minimum requirements of the permit, Obetz will review and update zoning and development regulations; and, continue to develop programs to identify potential pollution sources and eliminate them. Programs will be developed to address erosion concerns along stream and ditch banks; implement demonstration rain barrels and rain gardens; provide information workshops to businesses and residents interested in green practices; improve the appearance of existing detention basins; and, increase tree canopy cover in the Village. Every effort will be made to use existing resources; identify grant opportunities; and, meet multiple community needs.

This document starts with an introduction to the regulations and Storm Water Management Program. The Plan is organized into the six minimum control measures (MCMs) that are set forth in the NPDES Phase II permit. These MCMs are Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post Construction Storm Water Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations. The MCMs provide a comprehensive storm water management approach from educating and involving all the users of the system; mapping the storm water system including outfalls into the system; identifying and resolving pollution discharges into the system; managing and improving storm water quantity and quality entering into the system on new and redeveloping construction sites; ensuring ongoing maintenance of all storm water management systems after construction and implementation; and, setting the community example with good storm water management at municipal facilities and with municipal operations.

# INTRODUCTION AND BACKGROUND

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## Requirements

The Village of Obetz is required to develop and implement a Storm Water Management Program (SWMP) in order to protect water quality and satisfy the appropriate water quality requirements of Ohio Revised Code (ORC) 6111 and the Clean Water Act. The SWMP includes management practices, control techniques, and system, design, and engineering methods. Requirements for the SWMP are regulated by the OEPA through the National NPDES General Permit for Small Municipal Separate Storm Sewer Systems (MS4), NPDES Permit No: OHQ000002. The permit requirements address the six minimum measures listed below:

1. Public Education and Outreach;
2. Public Participation/ Involvement;
3. Illicit Discharge Detection and Elimination;
4. Construction Site Storm Water Runoff Control;
5. Post Construction Storm Water Management in New Development and Redevelopment; and,
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

The OEPA requires that the Village's SWMP is articulated in a plan known as the Storm Water Management Program Plan (SWMPP). The SWMPP is reviewed, modified, and updated regularly to include provisions as OEPA and/or Village of Obetz staff determines appropriate after program reviews in order to promote effective storm water quality management. The SWMPP includes best management practices (BMPs) for each minimum measure listed above.

The full text of the permit and other guidance documents can be viewed on Obetz' website, [www.obetz.oh.us](http://www.obetz.oh.us), or by contacting Stacey Boumis, Community Services Director at (614) 491-1080.

## Development of the 2009-2013 Storm Water Management Program Plan

The Village of Obetz began developing a Storm Water Management Program in 2002 with NPDES Permit # OHQ000001. The Village renewed its general permit in 2009 and created a new Storm Water Management Program Plan. Village staff and the Franklin Soil and Water Conservation District (FSWCD) met several times to discuss the new requirements included in the 2009-2013 permit and also discuss the Village's goals and objectives for the new permit.

The development of the SWPPP was inclusive. Members of the staff at all levels were asked to provide input. All departments involved in implementation were also consulted. The SWMPP includes many of the ideas generated at those meetings.

## Community Description

### Demographics

According to 2009 estimates from the Mid Ohio Regional Planning Commission, the Village of Obetz is comprised of approximately 4,685 residents and 1,642 households.<sup>1</sup> A total of 131 businesses exist. According to the 2000 U.S. Census, the median age is 33, 94 percent of the population is white, 8 percent of residents have a college degree, 66 percent of housing units are owner occupied, and the median household income is \$45,000.<sup>2</sup>

### Land Use

The Village of Obetz encompasses approximately 3,531 acres of land and includes 8 miles of streams within the Big Walnut Watershed (HUC: 05060001-160-030). As extrapolated from MORPC land use data<sup>3</sup> and Obetz' zoning map<sup>4</sup>, 28 percent of the Village's land is residential; 40 percent is industrial; 3 percent is commercial; and, 30 percent is undeveloped. The undeveloped portion of the Village includes parkland.

### Watershed

The Big Walnut Creek Watershed, which includes Obetz, drains the Alum, Blacklick, and Rocky Fork Creeks, located in Delaware, Franklin, Licking, and Morrow Counties. The stream miles within the Village are designated as Exceptional Warm Water Habitat and considered in full attainment of water quality standards. Three water quality study areas – upstream, within, and downstream from the Village – identified in the 2000 Big Walnut Creek OEPA Study contribute to the identification of possible pollution targets for the Village.

The Williams Road study location, north of the Village of Obetz and at river mile 15.8, found slightly elevated pathogen counts and nutrient concentrations, and the presence of polycyclic aromatic hydrocarbons (PAHs) and metals in the sediments. The Broehm Ditch study location within the Village has a modified warm water habitat use designation. The ditch has moderate amounts of bacterial contamination. Home sewage treatment systems (HSTS) are a typical source of bacterial contamination. Further investigation is required. Increased storm water runoff from development pressures and impervious surfaces were also evident from the extensive erosion of the ditch bed and banks. The Route 317 study location, south of the Village of Obetz and at river mile 7.1, found slightly elevated pathogen counts, total suspended solids, and nutrient concentrations. In respects to the study sites, the overall health and well being along the Big Walnut main stem, as assessed by the OEPA using the Qualitative Habitat Evaluation Index (QHEI), is considered very good to exceptional. Sources of impairment are identified as urban and suburban runoff as well as HSTS.<sup>5</sup>

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<sup>1</sup> Mid Ohio Regional Planning Commission, [http://www.morpc.org/info\\_center/main/info\\_center.asp](http://www.morpc.org/info_center/main/info_center.asp), accessed 29 June 2009.

<sup>2</sup> United States Census 2000, <http://www.census.gov/main/www/cen2000.html>, accessed 29 June 2009.

<sup>3</sup> Mid Ohio Regional Planning Commission, [http://www.morpc.org/info\\_center/main/info\\_center.asp](http://www.morpc.org/info_center/main/info_center.asp), accessed 29 June 2009.

<sup>4</sup> Village of Obetz Zoning, <http://www.obetz.oh.us/development.aspx#planningzoningcommission>, accessed 29 June 2009.

<sup>5</sup> Sources: Friends of Alum Creek Watershed Action Plan and Inventory, 2006, and Biological and Water Quality of the Big Walnut Creek Basin, 2000, Ohio EPA.

## Sewer and Storm Sewer System

The community has centralized sewers with very few properties still relying on home sewer treatment systems (septic tanks). The storm sewer system is a combination of curb and gutter, pipe, and grassed swales. Residents in the older portion of the Village use open swales and grassed ditches to convey storm water. In many cases, the water from the roofs is directed into the yards. Conventional subdivisions in the Village use curb and gutter for storm water conveyance. Flow monitoring conducted in 2010 as a part of another program revealed that the Village does not have inflow and infiltration issues.

Water resources between surface and ground water are interrelated. The community receives drinking water from two sources— a local water treatment plant which utilizes ground water and from the City of Columbus which utilizes surface water. Storm water management practices of retention, detention, and water quality improvement will impact ground water quality and availability.

## Soils<sup>6</sup>

The terrain with the Village is relatively flat with fair to good drainage. The primary soil types are Crosby (47.6%), Celina (17.7%), Kendallville (8.2%), Kokomo (7.1%), Udorthents (6.5%), Eldean (3.8%), Miamian (3.3%), and Medway (2.0%). The Crosby (silt loam) series consists of very deep, somewhat poorly drained, moderately to dense till soils. The Celina (silt loam) series consists of very deep, moderately well drained and moderately deep to dense till soils. The Kendallville (silt loam) series consists of very deep and well drained soils. The Kokomo (silty clay loam) series consists of very deep, very poorly drained soils that have formed in loamy materials overlying till. The Udorthents (loam and clay loam) series consist of soils in areas that have been surface-mined for sand, gravel and fill material, and soils that have been filled with trash, bricks, concrete, wood, and other rubbish materials. The Eldean (silt loam) series consists of very deep, well drained soils composed of moderately deep to calcareous sandy and gravelly materials. The Miamian (silt loam) series consists of very deep, well drained, moderately deep to dense till soils. Medway (silt loam) series consists of nearly level, very deep, moderately well drained soils in flood plain areas.

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<sup>6</sup> United States Department of Agriculture's Soil Survey of Franklin County

## Organizational Table

To ensure implementation, the OEPA requires a table of organization that identifies the primary point of contact for each minimum measure and person responsible for the implementation or coordination of BMPs. As shown below, the Community Services Director is the primary point of contact and responsible for the implementation and coordination of all BMPs. The Parks Superintendent, Streets Superintendent, and Building Department Coordinator support the Community Services Director and are responsible for the implementation of specific BMPs. The Franklin County Soil and Water Conservation District (FSWCD), Franklin County Board of Health, and Stantec serve as program consultants and assist in program implementation as needed.



# Storm Water Management Program Plan

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This Storm Water Management Program Plan (SWMPP) is organized by the six Minimum Control Measures (MCMs) – Public Education and Outreach; Public Participation and Involvement; Illicit Discharge Detection and Elimination; Construction Site Storm Water Runoff Control; Post Construction Storm Water Management in New Development and Redevelopment; Pollution Prevention and Good Housekeeping for Municipal Operations. The SWMPP includes best management practices, measurable goals, program rationale, and descriptions of the decision process, responsible parties, time schedules, and other required information. The Plan will be regularly updated and used as a tool to complete the required annual reporting.

## I. Public Education and Outreach

### Introduction

Because storm water runoff is generated from dispersed land surfaces—pavements, yards, driveways, and roofs—efforts to control storm water pollution must consider individual, household, and public behaviors and activities that can generate pollution from these surfaces. It takes individual behavior change and proper practices to control such pollution. Therefore it is important to make the public sufficiently aware and concerned about the significance of their behavior for storm water pollution, through information and education, that they change improper behaviors.

The first minimum control measures requires the Village to distribute educational materials to the community about the impacts of storm water discharges and steps the public can take to reduce pollutants reaching water bodies. An informed and knowledgeable community is important to a successful storm water program. The Plan lays the foundation for community participation in responsible land management, compliance with local and state regulations, and support for community projects and programs needed for a successful storm water program.

### OEPA Permit Requirements

1. Develop a plan to inform and involve individuals and households about steps they can take to reduce storm water pollution including measurable goals, target audiences, target pollutants, outreach strategies, and input into the development of the SWMP.
2. Develop five different storm water themes or messages to be conveyed to target audiences during the permit term. The development community must be the target audience for one theme or message.
3. Develop rationale for target audiences and pollutants that will make the greatest difference for improving storm water quality.
4. Identify approaches and mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people will be reached over the permit term. At least 50 percent of the population needs to be reached over the permit term.
5. Evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

## **Decision Process and Rationale Statement**

To address this minimum control measure the Village will utilize a comprehensive approach to maximize the effectiveness of education and outreach. The small size of the Village and strong connection with the residents and businesses will allow the Village to contact most, if not all, of the households and businesses over the permit term.

The program will target residents, households, businesses, and students K-12. Consideration will be given to specific groups within the Village including residents along streams and ditches, local scout troops, church groups, outdoor enthusiasts, and other community organizations. Community interests and activities include hunting, fishing, gardening, and recreation. These activities and areas of interest will be utilized for outreach and education events.

## **Outreach Opportunities**

1. Publication of the Village newsletter a minimum of two times per year and delivered to 100 percent of the households and businesses within Obetz.
2. A well maintained website ([www.obetz.oh.us](http://www.obetz.oh.us)) with contact information for various Village departments.
3. An active Historical Society that distributes a “Welcome Basket” to new residents.
4. Regular Village Council meetings that are open to and attended by Village residents.
5. An active and well utilized community center and network of parks.
6. A partnership with the Franklin Soil and Water Conservation District for storm water program management support.
7. Five schools with 3,045 students within the Hamilton Local School District located within the Village of Obetz.
8. The Hoover YMCA.
9. An annual luncheon provided by the Village of Obetz to the local business community.

## **Best Management Practices**

When selecting BMPs for this minimum measure a number of factors were considered including existing community resources, demographics, land use, existing water quality and storm water system information, and potential pollution sources. The following BMPs will be used for public education and outreach:

1. Distribute educational information through newsletters, the Village website, and community organizations.
2. Provide educational presentations and interactive displays to K-12 students.
3. Organize and advertise community events and demonstrations that engage residents in conservation practices and activities that benefit storm water quality.
4. Provide educational information and discussion through community meetings.

## **Target Audiences**

The Village of Obetz has a mix of land uses but is predominately low density residential and industrial/warehousing. A large number of the streets do not have curbs and gutters; therefore, water from the downspouts is directed into the yard and then drains across the yards into storm drains typically located on the corners. The majority of the Village’s industrial/warehousing development is located in planned development areas that have shared storm water retention or

detention ponds. The limited numbers of commercial businesses are either food service or small scale retail. The Hamilton Local School District has four school facilities within the Village located on a central campus.

Another important target audience for the Village's public education and outreach program is the development community. There are two active sectors of development currently – single family homes in subdivisions and large warehouses in industrial parks. The construction process can have a significant impact on storm water quality if not properly monitored with the main impact being increased soil erosion.

Based on the above analysis, the majority of the Village's educational and outreach programs will focus on the residents and industrial/warehousing operators and owners. Efforts will also be made to educate the commercial and institutional entities within the Village.

The Village's public outreach program for residents will focus on the following:

- Littering
- Disposing of trash and recyclables
- Disposing of pet-waste
- Applying lawn chemicals
- Washing cars
- Changing motor-oil on impervious driveways
- Household behaviors like disposing leftover paint and household chemicals

The Village's public outreach program for institutions and commercial, industrial and warehousing owners and operators will focus on the following:

- Applying lawn chemicals
- Maintaining the site especially dumpster and dock areas
- Applying salt and other chemical de-icers to parking lots and private drives
- Properly disposing of grease and chemicals
- Treating storm water ponds

The Village's public outreach program for the development community will focus on the following:

- Site design
- Site maintenance during the construction process
- Green infrastructure

In order to monitor the success of the Village's public education and outreach campaign, the Village will track participation in local events including the spring clean-up. The Village will also conduct surveys to determine the effectiveness of its programs.

## Themes

The Village of Obetz will address at least five different education themes during the permit cycle. The themes will target existing and potential community pollution sources. Possible educational themes for consideration are the following.

1. “***Put things where they belong***” which focuses on the proper disposal of household, business, and community waste.
2. “***Only rain down the drain***” which emphasizes that storm water is not treated and is conveyed directly to the stream.
3. “***Responsible use***” which focuses on the responsible application of pesticides, herbicides, and fertilizers.
4. “***Backyard conservation***” which focuses on the use of rain barrels, rain gardens, and native vegetation and trees to capture storm water, manage erosion, and protect stream corridors.
5. “***Better site design***” which focuses on how to properly manage construction projects from inception beyond completion for better water quality, infiltration, and regulation compliance.
6. “***Green infrastructure***” which focuses on using storm water infiltration and vegetation for better storm water management, healthier streams and cleaner water.
7. “***Managing HSTs***” which focuses on educating home owners on responsibilities and proper management of onsite sewage treatment systems.

## Responsible Party and Legal Authority

The Community Services Director will be responsible for the overall management and implementation of the storm water public education and outreach program. Franklin Soil and Water Conservation District will provide assistance with educational materials and presentations. Planned activities are well within the authority and ability of the Village of Obetz in partnership with Franklin Soil and Water Conservation District. No additional authority is required.

**I. Public Education and Outreach: Measurable Goals and Planned Activities**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Theme or Message</b>	<b>Target Audience</b>	<b>Estimated # Reached</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<b>Distribute Educational Information</b>  Stacey Boumis, Community Services Director	Inform all households of the storm water program and what they can do to keep the community waters cleaner.	1. Put things where they belong 2. Responsible use 3. Only rain down the drain 4. Backyard conservation 5. Managing your HSTS	1. Households 2. Community organizations 3. Outdoor enthusiasts 4. Churches	100%	1. Publish at least one article per year in the Village's newsletter. 2. Continue to create and provide fact sheets to be included in the Obetz Historical Society's welcome basket to new residents. Track number of baskets distributed. 3. Coordinate with the County BOH to provide educational information to known HSTS locations.	Annually and ongoing
	Inform all businesses about the storm water program and what they can do to keep the community waters cleaner.	1. Put things where they belong 2. Responsible use	Businesses	100%	1. Provide storm water education at the annual business meeting. 2. Develop a plan to create and distribute brochures and fact sheets targeted specially to businesses. 3. Distribute brochures and fact sheets to businesses.	Ongoing  2010  2011 and ongoing
	Inform all potential and current landowners requesting permits or approvals or otherwise engaged in the development process about the Village's storm water program and what they can do to keep the community waters cleaner.	1. Better site design 2. Green infrastructure	1. Developers 2. Contractors 3. Land owners 4. Engineering firms	100%	1. Create and provide brochures and fact sheets specifically targeted to those considering or conducting earth work or construction activities. Provide these fact sheets with permit information and during visits with Village staff. 2. Provide the Urban Review newsletter to contractors and developers by providing contact information to FSCWD.	2011 and ongoing

**I. Public Education and Outreach: Measurable Goals and Planned Activities, Continued**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Theme or Message</b>	<b>Target Audience</b>	<b>Estimated # Reached</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<b>Community Events</b>  Stacey Boumis, Community Services Director	Provide at least two interactive events to promote green infrastructure solutions for storm water management.	1. Backyard conservation 2. Green infrastructure	1. All households. 2. Residents residing along a creek or ditch. 3. Residents outletting to a detention or retention basin.	TBD	1. Conduct a rain garden or rain barrel demonstration project. 2. Conduct a stream management workshop and tree planting activity. 3. Retrofit existing detention basin.	2011  2012  2013
	Advertise all existing events that support the SWMPP at Council meetings, on the Village website, water bill, newsletter, or newspaper of general circulation.	Various	1. Residents 2. Community organizations 3. Outdoor enthusiasts 4. Churches 5. Community center patrons 6. Businesses 7. Developers	100%	1. Advertise educational and stream clean-up events held by other conservation organizations. 2. Advertise the Storm Water Expo, technical workshops, and other targeted storm water workshops organized by FSWCD and other organizations. 3. Advertise SWACO's household hazardous waste collection days. 4. Advertise spring clean-up event.	Annually and ongoing
<b>Community Meetings</b>  Stacey Boumis, Community Services Director	Provide storm water education information at 3 community events.	1. Put things where they belong 2. Responsible use 3. Only rain down the drain 4. Backyard conservation 5. Green infrastructure	1. Residents 2. Community organizations 3. Churches 4. Special interest groups	TBD	1. Provide a display at Three Creeks Metro Parks event. 2. Organize an educational workshop geared toward special interest groups such as fisherman or hunter's. Discuss storm water education during the workshop. 3. Develop other community education opportunities through the community parks and recreation programs.	Annually  2011  2010
	Provide storm water education information at the annual business lunch.	1. Put things where they belong 2. Responsible use 3. Green infrastructure 4. Only rain down the drain	Businesses	100%	Reference SWMPP during luncheon through presentation, written materials, and/or display.	Annually

## **II. Public Participation and Involvement**

### **Introduction**

An active and engaged community is critical to the success of the Village's storm water program. This minimum control measure requires the Village to engage the public by seeking input and involvement in the Village's SWMP. Public participation provides valuable input and assistance for the SWMP with opportunities to engage in the development and implementation of the program. Public involvement results in broader public support, improvements to the program plan and implementation, shorter implementation schedules, additional resources, and greater benefits to water quality in the Village and watershed.

### **OEPA Permit Requirements**

1. Describe public involvement opportunities in developing and implementing your storm water management plan.
2. Describe target audiences for public involvement including ethnic, economic groups, and stakeholder groups.
3. Describe public involvement activities with a minimum of five public involvement activities over the permit term.
4. Evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

### **Decision Process**

To address this MCM the Village will engage in a SWMP that allows for and encourages community participation. Stakeholders include residents, businesses, community groups, and Friends of Big Walnut Creek. The Village will seek comments on the SWMPP by advertising completion of the Plan in a newspaper of general circulation as well as on the web site. The Plan will be an opportunity to educate the public about existing storm water management opportunities and the Village's SWMP.

### **Outreach Opportunities**

1. Publication of the Village newsletter up to two times per year and delivered to 100 percent of the households and businesses within Obetz.
2. A well maintained website ([www.obetz.oh.us](http://www.obetz.oh.us)) with contact information for various Village Departments.
3. An active Historical Society that distributes a "Welcome Basket" to new residents.
4. Regular Village Council meetings that are open to and attended by Village residents.
5. An active and well utilized community center and network of parks.
6. A partnership with the Franklin Soil and Water Conservation District for storm water program management support.
7. Five schools with 3,045 students within the Hamilton Local School District located within the Village of Obetz.
8. The Hoover YMCA.
9. An annual luncheon provided by the Village of Obetz to the local business community.

## Best Management Practices

The following BMPs will be used for public involvement/participation.

1. Provide opportunity for and consideration of public input into the storm water management plan.
2. Promote public involvement in the implementation of the storm water program and improvement of the storm water system.
3. Support existing watershed protection efforts that complement and support the Village SWMP.

## Target Audiences

The Village has a number of target audiences as previously addressed in the Public Outreach and Education section of this document. This will be the same target audience for the Village's public involvement and participation campaign. The Village will also reach out to local environmental groups such as the Friends of the Big Walnut Creek.

## Themes

The Village of Obetz will address at least five different education themes during the permit cycle. The themes will target existing and potential community pollution sources. Possible educational themes for consideration are the following.

1. ***“Put things where they belong”*** which focuses on the proper disposal of household, business, and community waste.
2. ***“Only rain down the drain”*** which emphasizes that storm water is not treated and is conveyed directly to the stream.
3. ***“Responsible use”*** which focuses on the responsible application of pesticides, herbicides, and fertilizers.
4. ***“Backyard conservation”*** which focuses on the use of rain barrels, rain gardens, and native vegetation and trees to capture storm water, manage erosion, and protect stream corridors.
5. ***“Better site design”*** which will focus on how to properly manage construction projects from inception beyond completion for better water quality, infiltration, and regulation compliance.
6. ***“Green infrastructure”*** which focuses on using storm water infiltration and vegetation for better storm water management, healthier streams and cleaner water.
7. ***“Together we can keep our streams and water clean”*** which focuses on the importance of community participation and involvement for effective storm water management.

## Responsible Party and Legal Authority

The Community Services Director will be responsible for the overall management and implementation of the storm water public education and outreach program. Franklin Soil and Water Conservation District will provide assistance with educational materials and presentations. Planned activities are well within the authority and ability of the Village of Obetz in partnership with Franklin Soil and Water Conservation District. No additional authority is required.

## II. Public Participation and Involvement: Measurable Goals and Planned Activities, Continued

BMP & Responsible Party	Measurable Goal	Theme or Message	Target Audience	Estimated # Reached	Summary of Planned Activities	Proposed Schedule
<b>Public Input</b>  Stacey Boumis, Community Services Director	Make a draft of the storm water management plan available to the public. Distribute a draft of the storm water management plan to known individuals and community groups engaging in related activities. Provide an opportunity for input into the draft plan.	Together we can keep our streams and water clean.	1. Residents 2. Businesses	TBD	1. Advertise that a draft of the storm water management plan is available for public comment. 2. Make the draft available for review at a Council meeting and on the website for public comment. 3. Review the storm water management plan yearly and make changes as needed.	2009 and on-going
	Review the Big Walnut Creek Watershed Action Plan.	Together we can keep our streams and water clean.	Friends of Big Walnut Creek	TBD	1. Review the Big Walnut Creek Watershed Action Plan. Integrate ideas from the plan into Obetz' SWMP.	2009
	Develop a system for processing and tracking complaints related to storm water and the Village's storm sewer system.	Together we can keep our streams and water clean.	1. Residents 2. Businesses	TBD	1. Identify resources and develop a plan to improve complaint tracking. 2. Implement the improved plan.	2009
	Provide an annual report and storm water program plan update to the OEPA and make the report and update available to Village residents and businesses.	Together we can keep our streams and water clean.	1. Residents 2. Businesses	TBD	1. Develop a news release to advertise the annual report and update to local media. Advertise the annual report and update at Council meetings, to community organizations, and at a public meeting for the SWMP. 2. Make the report and updates available on the website for public review and comment.	Annually

BMP & Responsible Party	Measurable Goal	Theme or Message	Target Audience	Estimated # Reached	Summary of Planned Activities	Proposed Schedule
<b>Public Involvement</b>  Stacey Boumis, Community Services Director	Organize four community involvement events over the course of the permit period.	1. Together we can keep our streams and water clean. 2. Put things where they belong. 3. Green infrastructure. 4. Backyard conservation. 5. Only rain down the drain.	1. Residents 2. Businesses	TBD	1. Organize a group of volunteers to assist in storm drain stenciling. 2. Organize a community tree planting event. 3. Organize a speaker's series which focuses on a variety of water quality topics. 4. Organize a community stream inventory and evaluation event.	2011-2013
<b>Support Existing Watershed Protection Efforts</b>  Stacey Boumis, Community Services Director	Participate in local watershed management protection efforts that benefit the environmental quality of the Big Walnut Creek Watershed and the Village's SWMP.	1. Together we can keep our streams and water clean. 2. Only rain down the drain. 3. Put things where they belong.	1. Big Walnut Creek Watershed stakeholders 2. Residents 3. Businesses	TBD	1. Maintain communications and relationships with Friends of the Big Walnut Creek, Franklin County Metro Parks, Central Ohio Greenways, FSWCD, local governments, and other groups involved in the Big Walnut Creek watershed. 2. Evaluate opportunities to support or participate in mutually beneficial goals and activities. 3. Advertise stream clean-up events held by local environmental organizations. 4. Advertise SWACO's annual regional household hazardous waste collection event and other ways to dispose of household hazardous wastes.	Ongoing

### **III. Illicit Discharge Detection and Elimination**

#### **Introduction**

This minimum measure requires the Village to implement and enforce a program to detect and eliminate illicit discharges. Addressing this minimum measure includes mapping, legal prohibition and enforcement, and a plan to detect and address discharges.

An illicit discharge is any discharge to the MS4 (municipal separate storm sewer system) that is not composed entirely of storm water with the following limited exceptions: waterline flushing; springs; water from crawl spaces, foundation drains, and sump pumps; footing drains; landscape irrigation and lawn watering; diverted stream flows; rising ground waters, uncontaminated ground water; individual residential car washing; air conditioning condensation; dechlorinated swimming pool water; potable water sources; flow from riparian habitats and wetlands; street wash water; and discharges or flows from fire fighting activities.

#### **OEPA Permit Requirements**

1. Develop, implement, and enforce a program to detect and eliminate illicit discharges into your MS4.
2. Complete a comprehensive storm sewer system map, showing the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls. The comprehensive storm sewer system map shall also include your MS4 system, including catch basins, pipes, ditches, flood control facilities (retention/detention ponds), post-construction water quality BMPs and private post construction water quality BMPs. The map must be updated annually
3. Identify and map all on-site sewage disposal systems (HSTSs) connected to discharge to Obetz' MS4. This map must include details on the type and size of conduits and ditches that receive discharges from HSTSs, as well as the water bodies receiving the discharges. Water quality protection devices and practices must also be mapped.
4. Prohibit, through ordinance, or other regulatory mechanism, illicit discharges into Obetz' storm sewer system and implement appropriate enforcement procedures and actions.
5. Develop and implement a plan to detect and eliminate non-storm water discharges, including illegal dumping, to the system.
  - a. Identify properties with existing individual discharging HSTSs that can legally, feasibly, and economically be connected to central sewers.
  - b. Develop or enhance an operation and maintenance program which determines if existing HSTSs are operating as designed and intended and if not, then a program that requires elimination, upgrade, or replacement of the systems.
  - c. Investigate the source of contamination in outfalls identified during dry weather screening.
  - d. Work with local waste water authorities to evaluate the planned or possible future installation of sewers for areas which contain high densities of discharging HSTSs.
6. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

7. Identify and address non-storm water discharges such as illicit discharges if they are significant contributors to your MS4, such as landscape irrigations, lawn watering, and diverted stream flows.
8. Annually revise priorities and goals based on data collection and evaluation.

## **Decision Process**

To address this minimum control measure the Village will use a combination of mapping, monitoring, education, and enforcement. All surface drainage, intersections, and outlets have been mapped in ArcGIS to submeter accuracy by FSWCD staff as part of a larger county-wide stream and drainage mapping effort. Included in the database are the outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls. A corresponding database was developed which allows for characterization of outfalls including water quality testing results. The resulting system is referred to as the Franklin County Stream Geodatabase. A good portion of the Village of Obetz is drained through swales and ditches, while pipes and catch basins remain to be mapped for some portions of the Village.

During the previous five year permit, FSWCD conducted dry weather screening of all outfalls totaling 218 pipes, tiles and open channels. Of the 218 features inventoried, 18 were defined as potential illicit discharges. Only two possessed obvious indicators. Eleven of these potential illicit discharges were sampled for water quality. Based on the results of the water sampling, the Village will begin to work with the Franklin County Board of Health to eliminate illicit discharges at the outfall locations.

With the updated requirements for illicit discharge mapping within this permit, the planning will also address the task of completing the MS4 mapping of the remainder of the Village. The majority of remaining mapping still required is the maps of the sub-surface infrastructure. This will require a substantial amount of funding and personnel resources to complete. At this point in time, the Village of Obetz is currently evaluating the approach they will take to address the conditions of this permit.

## **Best Management Practices**

1. Prohibit illicit discharges by developing an ordinance or other regulatory mechanism.
2. Develop and maintain a storm sewer system map.
3. Develop a HSTS map and list to assist with identification and resolution of potential failing systems.
4. Develop and implement an illicit discharge detection and elimination (IDDE) plan with the assistance of existing maps and related storm sewer system information.
5. Provide information about the hazards of illicit discharges to households and businesses for greater awareness and compliance with storm water program.
6. Conduct dry weather screening of outfalls by inspecting each at least once during the permit period during dry weather periods for the identification and resolution of potential illicit discharges.

## **Responsible Party and Legal Authority**

The Community Service Director will be responsible for the overall management and implementation of the illicit discharge detection and elimination program. John Bailey, Natural

Resources Conservationist with Franklin Soil and Water Conservation District, will oversee dry weather monitoring and sampling of suspicious outfalls on behalf of the Village.

The Village will develop a working agreement with the Franklin County Board of Health to enforce elimination of failing HSTSs for which the Board of Health has the legal authority to address. The Village will adopt an ordinance and procedures for enforcing the prohibition and elimination of other illicit discharges when they are discovered. The Franklin County Nail-A-Dumper program through the Sheriff's office will be used to enforce illegal dumping into the Village's storm water system when there is evidence linking an individual or business to such an activity.

### III. Illicit Discharge Detection and Elimination: Measurable Goals and Planned Activities

BMP & Responsible Party	Measurable Goal	Summary of Planned Activities	Proposed Schedule
<p><b>Ordinance or Other Regulatory Mechanism</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Adopt an ordinance prohibiting illicit discharges into the storm sewer system.</p>	<ol style="list-style-type: none"> <li>1. Work with FSWCD to create an illicit discharge detection and elimination ordinance that is at least as restrictive as current state mandated rules.</li> <li>2. Develop a procedure to enforce the illicit discharges ordinance.</li> <li>3. Meet with appropriate Village personnel to coordinate implementation and adoption of the ordinance.</li> <li>4. Adopt the ordinance.</li> <li>5. Post the ordinance on the Village's website.</li> <li>6. Cite local codes being used including the web link or a copy of the code on the annual report.</li> </ol>	<p style="text-align: right;">2009</p> <p style="text-align: right;">2010 (adoption)</p>
<p><b>Storm Sewer System Map</b></p> <p>Jeff Pierce, FSWCD</p>	<p>Create a surface drainage map that locates outfalls including catch basins, pipes, ditches, flood control facilities, and post construction best management practices.</p>	<ol style="list-style-type: none"> <li>1. Collection existing paper maps of outfalls, as-builts of storm water infrastructure, stream geodatabase information, and detailed field knowledge from employees to establish a mapping plan and scope of work.</li> <li>2. Update the storm sewer system map to include catch basins, pipes, ditches, flood control facilities (retention/detention ponds), post construction water quality BMPs which have been installed to satisfy OEPA's NPDES Construction Storm Water General Permit and/or the Village's local post construction water quality BMP requirements.</li> <li>3. Field verify unknown locations of catch basins as needed.</li> <li>4. Based on field verification, add additional outfall locations.</li> <li>5. Update and edit stream database with new storm water system information. Review map of outfall locations.</li> </ol>	<p style="text-align: right;">2010</p> <p style="text-align: right;">Ongoing</p> <p style="text-align: right;">2011</p>
<p><b>HSTS Mapping and List</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Develop a list showing addresses and the parcel ID's of all HSTSs and develop a map of on-site sewage disposal systems within the Village</p>	<ol style="list-style-type: none"> <li>1. Perform records search and obtain a list of on-site sewage disposal systems from the Board of Health.</li> <li>2. Map the location of all known home sewage treatment systems connected to the Village's MS4.</li> <li>3. Continue to update the map and list of HSTSs as information becomes available.</li> </ol>	<p style="text-align: right;">2012</p> <p style="text-align: right;">2013</p> <p style="text-align: right;">Ongoing</p>
<p><b>IDDE Plan</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Eliminate significant sources of pollution.</p>	<ol style="list-style-type: none"> <li>1. Work with FSWCD and the Board of Health to identify priority areas of Obetz that have significant sources of pollutants.</li> <li>2. Develop an on-going IDDE plan and schedule that prioritizes illicit discharges for detection and elimination.</li> <li>3. Develop a schedule of eliminating illicit connections to the storm sewer system.</li> </ol>	<p style="text-align: right;">2013</p>

**III. Illicit Discharge Detection and Elimination: Measurable Goals and Planned Activities, Continued**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activity</b>	<b>Proposed Schedule</b>
<p><b>Provide Information about the Hazards of Illicit Discharges</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Eliminate significant sources of pollution.</p>	<ol style="list-style-type: none"> <li>1. Reach out to at least 50% of the general public and businesses about the hazards of illicit discharges. Use the Village’s newsletter, water bills, and website.</li> <li>2. Hold a training every year for appropriate Village employees on how to identify and locate illicit discharges within the Village and the hazards of these. Ensure all appropriate employees are trained during orientation.</li> <li>3. Develop written protocols for all personnel investigating illicit discharges and responding to spills.</li> </ol>	<p>2010 and on-going</p> <p>2011</p> <p>2011</p>
<p><b>Dry Weather Screening of Outfalls</b></p> <p>John Bailey, FSWCD</p>	<p>Dry weather screen all known outfalls within the Village.</p>	<p>Collect water quality samples from all outfalls that could not be sampled in 2008 but that were identified as potential sources of pollution. Include this information in the Village’s GIS map system.</p>	<p>2010</p>

## **IV. Construction Site Storm Water Runoff Control**

### **Introduction**

This minimum control measure addresses management of storm water runoff from construction activity disturbing one acre or greater. Storm water runoff management addresses both how water is retained and released during and after storm water events and how erosion is minimized through design, management of construction activity, and use of erosion control practices until the site is stabilized with permanent vegetation.

Sediment is the number one pollution of concern in Ohio with construction and urban runoff being the primary contributor in the Village of Obetz and Franklin County. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. Unmanaged storm water runoff from developed land results in stream bank erosion. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to local streams. Storm water retention and detention on construction sites reduces the volume and velocity of storm water entering ditches and streams. Another benefit of storm water detention is increased infiltration of water into the soil. This replenishes the availability of ground water as a supply for drinking water and maintains base flow in local streams.

### **OEPA Permit Requirements**

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance. The regulation will be equivalent to the technical requirements set forth in the Ohio EPA General Permit for Construction Site Storm Water.
2. Require construction site operators to implement appropriate erosion and sediment control BMPs.
3. Require construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
4. Procedures for storm water pollution prevention plan review which incorporate consideration of potential water quality impacts.
5. Procedures for receipt and consideration of information submitted by the public.
6. Procedures for site inspection and enforcement of control measures with a frequency of no less than monthly.

### **Decision Process**

Although the Village of Obetz has just a few construction sites per year, it is still required to meet all requirements set forth in the NPDES permit and is committed to doing so. The Village will continue to develop, implement and enforce a program to reduce pollutants to control construction site runoff on construction sites that result in a land disturbance of greater than or equal to one acre.

In order to control polluted runoff from construction sites, the Village uses existing zoning and building codes and state regulations to require and enforce erosion and sediment controls at construction sites, including sanctions and enforcement mechanisms. The Village plans to

update regulations for improved requirements and enforcement mechanisms for development sites. Updated regulations will be centered on current the NPDES Construction and NPDES MS4 general permit requirements.

As a requirement of the NPDES general storm water permit, all on-site operators are to maintain records and reports that keep track of the inspections completed by the on-site operator. The Village of Obetz will develop procedures for site inspection and enforcement of control measures to deter infractions. Inspections give the Village an opportunity to provide additional guidance and education, issue warnings, or assess penalties.

The Village will track the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities, both written and verbal. This will recognize the important role that the public can play in identifying cases of noncompliance. To ensure sites are inspected for erosion and sediment control as well as for storm water pollution prevention and are in compliance with all current regulations, the building department will inspect all active, permitted construction sites on a regular basis. If any of the sites are found to be out of compliance, the Building Department will enforce the regulations and implement penalties as necessary.

### **Best Management Practices**

To address this minimum control measure the Village will address the following best management practices as a part of its construction site storm water runoff control program:

1. Update ordinances and other regulatory mechanisms for improved management of storm water runoff on construction sites within two years. Ordinances will require construction site operators to obtain coverage under Ohio EPA's NPDES Construction General Permit (CGP). Such waste includes, but is not limited to, discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste. A sensitive areas protection plan (riparian corridors, wetlands) will also be included in subdivision regulations and zoning ordinances.
2. Ensure that construction site operators implement erosion and sediment control requirements equivalent to the technical requirements set forth in Ohio EPA's statewide NPDES Construction General Permit for the consideration of potential water quality impacts.
3. Create procedures for pre-construction storm water pollution prevention plan review for all projects that result in a land disturbance of greater than or equal to one acre. To ensure compliance, these sites shall be initially inspected.
4. Establish procedures for the receipt and consideration of information submitted by the public.
5. Create procedures for site inspections of all permitted, active construction sites. Inspections will be performed monthly. Sites that contain or are situated within 100 feet of a waterway or sensitive natural area, or have a history of noncompliance may be inspected more frequently at the Village's discretion.
6. Create enforcement procedures to effectively address non-compliance with storm water regulations on construction sites. Develop sanctions and enforcement mechanisms to ensure compliance with construction site control measures and BMPs including the

possible use of fines, bonding requirements, stop work orders, and/or permit denials for non-compliance. Include guidelines for when certain sanctions will be used.

### **Responsible Party and Legal Authority**

The Building Department and Village Engineer will be responsible for the overall management and implementation of the construction site storm water runoff control program. FSWCD will assist the Village with plan review and construction site erosion and sediment control inspections. The Community Services Director will review the success and document the achievement of the measurable goals of the construction site storm water runoff control program and BMPs.

**IV. Construction Site Storm Water Runoff Control: Measurable Goals and Planned Activities**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<p><b>Ordinance or Other Regulatory Mechanism</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Adopt an ordinance requiring permit coverage, erosion and sedimentation controls, and waste controls at construction sites that disturb one acre or more.</p> <p>Ensure environmentally sensitive areas are protected from construction site storm water runoff.</p>	<p>1. Develop a regulatory mechanism that is at least as stringent as current state mandated rules.</p> <p>2. Develop a procedure to enforce the erosion and sedimentation controls ordinance.</p> <p>3. Coordinate the implementation and adoption of an ordinance.</p> <p>4. Cite local codes being used including the web link or a copy of the code on the annual report.</p> <p>5. Review existing regulations which protect environmentally sensitive areas. Update regulations as necessary.</p>	<p>2010</p> <p>2011 Annually</p> <p>2011</p>
<p><b>Sediment and Erosion Control Requirements</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>See above.</p>	<p>Standards being used will be reported in the annual report.</p>	<p>2010 and ongoing</p>
<p><b>Complaint Process</b></p> <p>Stacey Boumis, Community Services Director and Melissa McMillon, Building Dept. Coordinator</p>	<p>Improve the process for receiving and processing complaints.</p>	<p>1. Develop a system for receiving and processing complains.</p>	<p>2009</p>
<p><b>Site Plan Review Procedures</b></p> <p>Stacey Boumis, Community Services Director and Village Engineer</p>	<p>Review the process for pre-construction storm water pollution prevention plan review. Ensure all residential and commercial projects that result in a land disturbance greater than or equal to one acre is included.</p>	<p>1. Review the existing procedures for site plan review.</p> <p>2. Track the number of site plans reviewed.</p>	<p>2010</p>

**IV. Construction Site Storm Water Runoff Control: Measurable Goals and Planned Activities, Continued**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activity</b>	<b>Proposed Schedule</b>
<p><b>Site Inspection Procedures</b></p> <p>Village Engineer and Melissa McMillon, Building Department Coordinator</p>	<p>Ensure construction sites are inspected to ensure compliance with SWPPP's.</p>	<ol style="list-style-type: none"> <li>1. Track the number of construction sites within the Village, the number of inspections performed at each site, and the average frequency of inspections.</li> <li>2. Provide the above information in the Village's annual report.</li> <li>3. Update the Village's inspection reports consistent with the OEPA's General Storm Water Permit</li> </ol>	<p>2010 and on-going</p> <p>2011</p>
<p><b>Enforcement Procedures</b></p> <p>Village Solicitor, Melissa McMillon, and Stacey Boumis, Community Services Director</p>	<p>Enforce Village regulations.</p>	<p>Collect water quality samples from all outfalls that could not be sampled in 2008 but that were identified as potential sources of pollution. Include this information in the Village's GIS map system.</p>	<p>2010</p>

## **IV. Post Construction Storm Water Management in New Development and Redevelopment**

### **Introduction**

These measures start at development plan review and continues through the management of the storm water management practices that remain on site after construction is completed. Good construction site management and use of non structural BMPs, including wise placement of green space and stream buffers, can reduce costs of ongoing maintenance.

As post construction runoff flows over developed land it carries pollutants such as sediment, oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus) to nearby ditches and streams. Once deposited, these pollutants impact water quality and the viability of aquatic organisms. Post construction runoff also increases the quantity of water delivered to ditches and streams during storm events. Storm water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank erosion and downstream flooding. As storm water is directed into streams and ditches, infiltration of water to replenish the water table is decreased.

### **OEPA Permit Requirements**

1. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb one-acre of land or greater to help minimize water quality impacts.
2. Evaluate non-structural BMPs for storm water management program, including:
  - a. policies and ordinances that provide requirements and standards to direct growth to identified areas and protect sensitive areas such as wetlands and riparian areas;
  - b. maintenance and/or increase of open space;
  - c. buffers along sensitive water bodies;
  - d. minimization of impervious surfaces; and,
  - e. limited disturbance of soils and vegetation.
3. Consideration of structural BMPs in the program, including:
  - a. storage practices such as wet ponds and extended-detention outlet structures;
  - b. filtration practices such as grassed swales, bioretention cells, sand filters and filter strips; and,
  - c. infiltration practices such as infiltration basins and infiltration trenches.
4. Within the first two years of the permit, identify the mechanisms (ordinance or other regulatory methods) to address post construction runoff from development and redevelopment and include reasons for selection of the mechanism(s).
5. Within the first two years of the permit, ensure that long-term operation and maintenance (O&M) plans are developed and agreements are in place for all applicable sites.

### **Decision Process**

The Village will address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre with controls that prevent or minimize water quality impacts. This may include retrofits to existing basins to improve the water quality of the runoff

and decrease the amount of water quantity going into the receiving stream. This may also include an educational component on the specifics of what best management practices will best accomplish these retrofits and what best management practices will accomplish post construction storm water management on new development sites.

To incorporate new developments, the Village will either adopt an existing or develop a new manual for storm water best management practices with an emphasis on green infrastructure. A manual that is underway and may be useful is the Franklin County storm water manual or the Columbus storm water manual. Both of these manuals include both structural and nonstructural BMPs.

To promote post construction non structural BMPs, Oletz will establish policies and ordinances that direct growth away from environmentally sensitive areas and protect valuable natural resources. Some examples of these policies include conservation development regulations, riparian setback regulations, wetland setback regulations, and tree ordinances.

As development moves forward in the Village, operation and maintenance plans will be required for all post-construction BMPs and an agreement will need to exist that clearly identifies who is the responsible party for maintaining the BMP. When selecting BMPs for this minimum control measure community demographics, land use, potential pollution sources, existing water quality and storm water system information will be considered.

### **Best Management Practices**

To address this minimum control measure the Village will address the following best management practices as a part of its post construction management program:

1. Develop an ordinance or other regulatory mechanism for the long-term management of post construction mechanisms and controls.
2. Implement post construction requirements
3. Develop and implement site plan review procedures to guide and evaluate management of post construction practices.
4. Develop and implement site inspection procedures to ensure compliance with post construction regulations and requirements.
5. Develop and implement enforcement procedures to ensure compliance with post-construction regulations and requirements.
6. Require long-term operations and management plans or agreements for the management, maintenance and repair of post construction practices.

### **Responsible Party and Legal Authority**

The Building Department and Village Engineer will be responsible for the overall management and implementation of the post construction storm water management program. FSWCD will provide technical guidance and educational opportunities to assist the Village in training and meeting this minimum control measure.

The Village of Oletz will adopt an ordinance and procedures for addressing post construction runoff from new development and redevelopment projects to the extent allowable under State or

local law and coordinate with the Ohio EPA NPDES general construction permit. This regulatory mechanism will address implementation and enforcement.

The Village will also review existing regulations related to riparian setbacks, wetland setbacks, open space requirements, and green infrastructure. As these are evaluated, the Village will modify regulations as directed by the Mayor and Council.

**V. Post Construction Storm Water Management: Measurable Goals and Planned Activities**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<p><b>Ordinance or Other Regulatory Mechanism</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Adopt an ordinance addressing storm water runoff from new development and redevelopment projects that disturb one acre or more.</p>	<ol style="list-style-type: none"> <li>1. Create and adopt an ordinance that addresses storm water runoff from new development and redevelopment projects that disturb one acre or greater.</li> <li>2. Educate the development community on requirements that need to be met for development and redevelopment.</li> <li>3. Cite local codes being used including the web link or a copy of the code on the annual report.</li> </ol>	<p>2010</p> <p>Ongoing</p> <p>Annually</p>
<p><b>Post Construction Requirements</b></p> <p>Village Engineer and Melissa McMillon, Building Dept. Coordinator</p>	<p>Develop an ordinance that requires post construction storm water management. Requirements shall be as listed in the OEPA general construction permit.</p> <p>Increase the use of nonstructural BMPs in the Village.</p>	<ol style="list-style-type: none"> <li>1. Create and adopt an ordinance that meets the requirements set forth in the OEPA general construction permit. The ordinance will be adopted within the first two years of the NPDES permit.</li> <li>2. Develop a committee to consider what BMPs would be best suited for the Village in regards to natural resources.</li> <li>3. Establish a plan and incentives package to encourage the use of nonstructural BMPs.</li> <li>4. Report structural and nonstructural standards being used in the general report.</li> </ol>	<p>2010</p> <p>2011</p> <p>2012</p> <p>Ongoing</p>
<p><b>Site Plan Review Procedures</b></p> <p>Stacey Boumis, Community Services Director and Village Engineer</p>	<p>Review every site plan for post construction requirements that are listed in the OEPA’s general construction permit and Village ordinances.</p> <p>Encourage the use of non-structural BMPs and green infrastructure to help improve the water quality of the storm water.</p>	<ol style="list-style-type: none"> <li>1. Review every site plan for post construction requirements.</li> <li>2. Meet with developers and engineers prior to site plan submittal to encourage the use of non-structural BMPs and green infrastructure.</li> <li>3. Publish information regarding the Village’s preference for non-structural BMPs and green infrastructure.</li> <li>4. Report the number of sites requiring plans and the number of plans reviewed.</li> </ol>	<p>2010</p>
<p><b>Site Inspection Procedures</b></p> <p>Melissa McMillon, Building Department Coordinator and Village Engineer</p>	<p>All post construction structural and non structural BMPs will be inspected during implementation and prior to acceptance of the project by the Village to ensure the BMPs are functioning properly.</p>	<ol style="list-style-type: none"> <li>1. Develop an inspection schedule for structural and nonstructural BMPs.</li> <li>2. Report the number of sites inspected, number of inspections performed, and average frequency of inspections.</li> </ol>	<p>2011</p>

**V. Post Construction Storm Water Management: Measurable Goals and Planned Activities, Continued**

<b>BMP &amp; Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<p><b>Enforcement Procedures</b></p> <p>Melissa McMillon, Building Department Coordinator</p>	<p>Adopt and implement</p>	<ol style="list-style-type: none"> <li>1. Create and adopt an ordinance that addresses storm water runoff from new development and redevelopment projects that disturb one acre or greater.</li> <li>2. Educate the development community on requirements that need to be met for development and redevelopment.</li> <li>3. Cite local codes being used including the web link or a copy of the code on the annual report.</li> </ol>	<p>2010</p> <p>Ongoing</p> <p>Annually</p>
<p><b>Long Term Operations and Maintenance Plans and Agreements</b></p> <p>Stacey Boumis, Community Services Director and Village Solicitor</p>	<p>All sites will have an O&amp;M plan.</p>	<ol style="list-style-type: none"> <li>1. Develop a requirement within the codified ordinances that requires all project to create an operations and maintenance plan that identifies who is responsible for which BMP and for how long.</li> <li>2. Report the number of sites requiring agreements and the number of agreements in place.</li> </ol>	<p>2011</p> <p>Annually</p>

## **VI. Pollution Prevention and Good Housekeeping**

### **Introduction**

This measure requires the Village to examine and alter its own actions to help insure a reduction of pollution that collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas. The Village can lead by example as it strives to improve water quality in the Village.

### **OEPA Permit Requirements**

1. Train employees 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.
2. Include a list of industrial facilities that the MS4 owns and operates. Storm Water Pollution Prevention Plans (SWPPP) need to be developed and implemented for listed facilities within the first two years of the permit.
3. Address maintenance activities, schedules, inspection procedures, and proper waste disposal for controls to reduce pollutants to your MS4s.
4. Ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices and practices.

### **Decision Process**

The Village of Obetz has one fleet management facility that requires a good housekeeping/pollution prevention plan. This facility is shared by both the Parks and Streets Department. The facility was built in 2002. The facility is designed with outlets to sanitary sewer and a storm water detention basin. The facility is well maintained and organized. Due the small size, low turnover, and informal nature of the staff, there are few written procedures.

In addition to this facility there is a community center, water plant, government center which includes the police department, and several community parks. There are opportunities for demonstration rain gardens, rain barrels, bioswales, and detention basin water quality retrofits throughout Village facilities.

### **Best Management Practices**

To address this minimum control measure the Village will incorporate the following best management practices into its pollution prevention and good housekeeping program:

1. Employee training program will be developed to include regular training for new and existing employees.
2. The list of facilities subject to program is currently one fleet management facility. All municipal facilities will be evaluated for opportunities for storm water retention and pollution reduction.
3. MS4 maintenance of storm water system will be evaluated and conducted annually.
4. Proper disposal of wastes will be managed through policy, procedures, documentation and audits.

5. Road salt will be managed for efficient use through policy, procedures, documentation and audits for benefit of both safety and water quality.
6. Pesticide and herbicide usage will be managed for efficient use through policy, procedures, documentation and audits for the benefit of both weed and pest management and water quality.
7. Fertilizer usage will be managed for efficient use through policy, procedures, documentation and audits for the benefit of both turf management and water quality.
8. Street sweeping will be utilized as a practice for the benefit of storm system maintenance and water quality.
9. Flood management projects will be evaluated for impacts storm water retention and water quality management.

### **Facilities List**

The Village operates the following facilities:

1. Government Center located at 4175 Alum Creek Drive which contains administrative offices and the police department;
2. Community Center located at 1611 Chillicothe Street;
3. Maintenance building for the Street and Parks Departments located at 4100 Orchard Lane; and,
4. Water Plant located at 2465 Stegner Road.

The only facility that requires a Storm Water Pollution Prevention Plan is the maintenance building.

### **Responsible Party and Legal Authority**

The Community Services Director will be responsible for the overall management and implementation of the pollution prevention and good housekeeping program. The Village Engineer will be responsible for the creation and implementation of a Storm Water System Maintenance Plan.

**VI. Pollution Prevention and Good Housekeeping: Measurable Goals and Planned Activities**

<b>BMP and Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<p><b>Employee Training</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Ensure all employees are properly trained.</p>	<ol style="list-style-type: none"> <li>1. Require all appropriate staff in the streets, parks, and utilities departments to attend at least one good housekeeping training a year.</li> <li>2. Distribute storm water information to employees at least once a year.</li> <li>3. Incorporate pollution prevention and good housekeeping practices into an employee handbook.</li> <li>4. Record target audience and number of employees attending.</li> </ol>	<p>Annually</p> <p>2011-2013</p> <p>2011</p> <p>Ongoing</p>
<p><b>Municipal Operations</b></p> <p>Stacey Boumis, Community Services Director</p>	<p>Incorporate pollution prevention and good housekeeping techniques at municipal facilities.</p>	<p>Complete a storm water pollution prevention plan for the maintenance building. This plan will include procedures, audit forms, and schedules.</p>	<p>2010</p>
<p><b>System Maintenance</b></p> <p>Tom Runkle, Streets Superintendant</p>	<p>Ensure storm sewer infrastructure is maintained.</p>	<ol style="list-style-type: none"> <li>1. Develop a maintenance schedule for cleaning catch basins and inspecting storm water infrastructure.</li> <li>2. Institute maintenance schedule.</li> <li>3. Summarize maintenance activities in the annual report.</li> </ol>	<p>2011</p> <p>Ongoing</p>
<p><b>Disposal of Waste</b></p> <p>Tom Runkle, Streets Superintendant and Kevin Miller, Parks Maintenance Supervisor</p>	<p>Ensure proper disposal of municipal wastes.</p>	<ol style="list-style-type: none"> <li>1. Create a list of municipal wastes disposed each year.</li> <li>2. Develop a procedure for proper waste disposal.</li> <li>3. Train employees on proper disposal techniques as a part of employee training.</li> <li>4. Document how wastes are disposed and amounts.</li> </ol>	<p>2011</p> <p>2011 and ongoing</p>

**VI. Pollution Prevention and Good Housekeeping: Measurable Goals and Planned Activities, Continued**

<b>BMP and Responsible Party</b>	<b>Measurable Goal</b>	<b>Summary of Planned Activities</b>	<b>Proposed Schedule</b>
<p><b>Road Salt</b></p> <p>Tom Runkle, Streets Superintendent</p>	<p>Ensure proper application of road salt.</p>	<ol style="list-style-type: none"> <li>1. Record existing street deicing procedures.</li> <li>2. Document tons of salt used each year.</li> <li>3. Develop procedures for reducing salt use, when appropriate.</li> </ol>	<p>Annually</p> <p>2011 and ongoing</p>
<p><b>Pesticide and Herbicide Usage</b></p> <p>Tom Runkle, Streets Superintendent and Kevin Miller, Parks Maintenance Supervisor</p>	<p>Decrease use of pesticides and herbicides.</p>	<ol style="list-style-type: none"> <li>1. Record existing pesticide and herbicide procedures.</li> <li>2. Document amount of pesticide and herbicide used.</li> <li>3. Develop procedures for reducing pesticide and herbicide use.</li> </ol>	<p>2011 and ongoing</p>
<p><b>Fertilizer Usage</b></p> <p>Kevin Miller, Parks Maintenance Supervisor</p>	<p>Decrease use of fertilizer.</p>	<ol style="list-style-type: none"> <li>1. Record existing fertilizer procedures.</li> <li>2. Map general areas where fertilizer is applied.</li> <li>3. Document amount of fertilizer used.</li> </ol>	<p>2011 and ongoing</p>
<p><b>Street Sweeping</b></p> <p>Tom Runkle, Streets Superintendent</p>	<p>Minimize trash and other pollutants in the street which may be transferred to the storm sewer system.</p>	<ol style="list-style-type: none"> <li>1. Develop a street sweeping schedule.</li> <li>2. Record amount of material collected and disposed.</li> </ol>	<p>2011</p>
<p><b>Flood Management Projects</b></p> <p>Village Engineer</p>	<p>Ensure storm water management is considered for all flood management projects.</p>	<p>Review existing Flood Damage Reduction Regulations. Incorporate additional water quality protection devices if needed.</p>	<p>2012</p>

# APPENDIX

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## Definitions

**Best Management Practice (BMP):** The most effective, practical methods for the prevention or reduction of pollution from non-point sources (e.g. urban pollutant runoff). Storm water best management practices include a structural or non-structural methods designed to temporarily treat or store storm water runoff to reduce pollution and mitigate flooding.

**Home Sewage Treatment System (HSTS):** As defined in the Ohio Administrative Code, Chapter 3701-29, a HSTS is any onsite sewage disposal or treatment system for a single-family, two-family, or three-family dwelling that serves as a collection point for sewage.

**Hydrologic Unit Code (HUC):** A two to eight digit code in the hydrologic unit system that is used to identify all the drainage basins within the United States. The HUC is based on the four levels of classification in the hydrologic unit system: regions (largest), sub-regions, accounting units, and cataloging units (smallest).

**Illicit Discharge Detection and Elimination (IDDE):** One of the six minimum control measures that is required to be included in the storm water management program of an operator of a Phase II regulated small municipal separate storm sewer system in order to obtain its National Pollutant Discharge Elimination System permit.

**Maximum Extent Practicable (MEP):** Although not directly defined by US EPA, this term refers requiring compliance with regulation requirements to the maximum ability of the permittee.

**Minimum Control Measure (MCM):** One of six technical areas in a storm water management program (SWMP) of the NPDES Phase II regulations. These six technical areas are: (1) Public Education and Outreach, (2) Public Participation/Involvement, (3) Illicit Discharge Detection and Elimination, (4) Construction Site Runoff Control, (5) Post-Construction Runoff Control and (6) Pollution Prevention/Good Housekeeping.

**National Pollutant Discharge Elimination System (NPDES):** Federally mandated permit system established by Section 402 of the Clean Water Act, used in the regulation of point sources (e.g. discharges from industrial and municipal facilities, storm water discharges from discrete conveyances such as pipes or channels).

**Ohio Revised Code (ORC):** Legal document containing all of the acts that have been passed by the Ohio General Assembly and that have been signed by the Ohio governor.

**Storm Water Management Program (SWMP):** The SWMP is organized by MCMs and includes BMPs, measurable goals, rationale, decision process, responsible parties, time schedules and other appropriate information.

**Storm Water Management Program Plan (SWMPP):** Documents the SWMP.

**Storm Water Pollution Prevention Plan (SWPPP):** A SWPPP identifies all potential pollution sources from a construction site or regulated facility; addresses measures to prevent potential pollutant discharges into water bodies and wetlands; and assists in the compliance with the conditions and terms of the permit.

**Qualitative Habitat Evaluation Index (QHEI):** Index designed by the Ohio EPA to establish a measurement of habitat quality that is generally interrelated to physical factors that affect fish communities and other aquatic life, such as macroinvertebrates.