

# BARTON HILLS VILLAGE STORMWATER MANAGEMENT PROGRAM

Original Program Approved April 27, 2010  
by the Michigan Department of Environmental Quality

Updated April 1, 2013 for 2014 Permit Application  
Permit Cycle ending September 30, 2014

Updated March 1, 2018 for Permit Cycle October 1, 2018 – October 1, 2020

## A. Introduction

The Barton Hills Village Stormwater Management Program (BHV-SWMP) was originally developed and approved in April 2010. The program was updated in April 2013 in support of Barton Hills Village's (BHV) Municipal Separate Storm Sewer System (MS4) permit renewal application (application attachment 4: *2013-SWMP*).

This update includes revisions that reflect BHV's MS4 commitments for the permit cycle from October 1, 2018-October 1, 2020. It follows the format of the 2013 MDEQ Stormwater Discharge Permit Application and is referred to as SWMP-2014.

The designated "Responsible Party" for all portions of the SWMP-2014 are the BHV Personnel listed below unless otherwise indicated. Deputy Clerk Janice Esch is responsible for the keeping of all written materials/records unless otherwise indicated.

### BHV Personnel/contacts:

Board of Trustees Water Committee: Sharon Popp (chair)

Board of Trustees Environmental Committee representative: Gregory Saldana (chair)

BHV Staff: Jeff Hnatow (Superintendent), David Esch (Asst. Superintendent)  
Janice Esch (Deputy Clerk)

BHV Water Resources Advisory Committee (WRAC) members: Randy Perry  
Asst. Treasurer, Desiree Kirkland, David Esch, Jeff Hnatow, Janice Esch

Contact information for all: Barton Hills Village, 199 Barton Shore Drive,  
Ann Arbor MI 48105-1021, 734-222-5209  
Fax 734-222-9177, bhvclerk@bartonhillsvillage.org

## B. Enforcement Response Procedure (ERP)

<u>Objective 1.</u>	Enforcement Response Procedure
BMP Implementation:	Establish procedure to address violations of the BHV stormwater ordinance(s) and regulatory mechanism(s)
Timeframe:	April 1, 2013 ERP applicable through October 1, 2018
Measurable Goal:	A written ERP will be included/approved as part of the completed MDEQ 2013 stormwater permit process
Record Keeping:	ERP

### C. Public Participation/Involvement Program (PPP)

<u>Objective 1.</u>	Public notice of SWMP-2014
BMP Implementation:	Notify the BHV residents about the SWMP-2014 including where copies are available and how residents may comment
Timeframe:	October 2014
Measurable Goal:	The SWMP-2014 will be posted on the BHV website. The SWMP-2014 will also be featured in the Barton Bulletin that will include information on where to view the documents on line, how to obtain or view a paper copy at the BHV Clerk's Office and how to comment on the plans.
Record Keeping:	Date of website posting; Barton Bulletin(s)
<u>Objective 2.</u>	Citizen Advisory Committee
BMP Implementation:	BHV has formed the Water Resources Advisory Committee (WRAC). See committee personnel listing in Introduction.
Timeframe:	Ongoing
Measurable Goal:	Activities of this committee will be published in the Barton Bulletin.
Record Keeping:	WRAC meeting minutes; Barton Bulletins
<u>Objective 3.</u>	Cooperation with local watershed protection group
BMP Implementation:	BHV participation in the Huron River Watershed Council (HRWC)
Timeframe:	Ongoing
Measurable Goal:	HRWC will publish a link to BHV website re: SWMP-2014. BHV will participate in the Middle Huron River Stormwater Advisory Group (SAG). BHV will carry out the requirements of the <i>Public Participation Program for the Huron River Watershed MS4s in Washtenaw County</i>
Record Keeping:	Agendas and documentation from HRWC/SAG participation
<u>Objective 4.</u>	Public comment
BMP Implementation:	Collect/review public comment on SWMP-2014
Timeframe:	Ongoing
Measurable Goal:	Public comment received will be reviewed for relevance/application to the SWMP-2014
Record Keeping:	Comment received by BHV and HRWC

### D. Public Education Plan (PEP)

BHV will cooperate with the Huron River Watershed Council and the Middle Huron River Stormwater Advisory Group partners in the support and implementation of the *Collaborative Public Education Plan*.

Prioritization of the key topics for BHV differs from the Collaborative PEP as follows:

Priority 1 B. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.

Priority 2 A. Promote public responsibility and stewardship in the applicant's watershed.

Priority 3 H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.

Priority 4 J. Promote methods for managing riparian lands to protect water quality.

Priority 5 C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.

Priority 6 E. Inform and educate the public on proper application and disposal of pesticides, herbicides and fertilizers.

Priority 7 G. Identify and promote the availability, location and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes and motor vehicle fluids.

Priority 8 F. Promote proper disposal practices for grass clippings, leaf litter and animal wastes that may enter into the MS4.

Priority 9 D. Promote preferred cleaning materials and procedures for car, pavement and power washing.

Priority 10 I. Educate the public on, and promote the benefits of, green infrastructure and low impact development.

Priority 11 K. Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.

## **E. Illicit Discharge Elimination Program (IDEP)**

<u>Objective 1.</u>	Prohibit discharges through regulation
BMP Implementation:	Develop an ordinance to prohibit illicit discharges to the storm and surface waters
Timeframe:	April 2011; December 2020
Measurable Goal:	Adoption of the ordinance; amendment of ordinance language
Record Keeping:	Written ordinance; amended ordinance
<u>Objective 2.</u>	A program to find and eliminate illicit connections and discharges
BMP Implementation:	Map of BHV storm sewer system composed of all catch basins, underground pipes and streams discharging to the Huron River.
Timeframe:	September 1, 2011
Measurable Goal:	Completed map
Record Keeping:	Completed map
<u>Objective 3.</u>	A program to find and eliminate illicit connections and discharges
BMP Implementation:	Dry weather screening of all discharge points
Timeframe:	at least once during permit cycle
Measurable Goal:	Complete 100% dry weather screening
Record Keeping:	Field notes, test results; information provided by HRWC under cooperative agreement; BHV IDEP Procedures

Objective 4. A program to find and eliminate illicit connections and discharges  
BMP Implementation: Written procedures/policy to track and eliminate illicit discharges, pursuing enforcement where necessary and responding to spills  
Timeframe: September 2014  
Measurable Goal: Procedures provided by HRWC under cooperative agreement  
Record Keeping: Written procedures, BHV ERP (Section B), BHV IDEP Procedures

Objective 5. Environmental or complaint response  
BMP Implementation: Hotline for reporting problems or seeking help (BHV office phone) 734-222-5209  
Timeframe: Ongoing  
Measurable Goal: Hotline established, announced to BHV residents  
Record Keeping: Keep track of all complaints and follow-up

Objective 6. Staff training  
BMP Implementation: Illicit discharge training for BHV staff and officials  
Timeframe: Annually for staff; once during permit cycle for officials  
Measurable Goal: One staff member will attend training and convey information back to the rest of the staff and officials for BHV in-house training  
Record Keeping: Copy of attendance records; BHV Training Outline

Objective 7. Overall effectiveness of IDEP  
BMP Implementation: Follow up survey to staff and officials regarding their understanding of IDEP training.  
Timeframe: within 30 days of training  
Measurable Goal: 100% of staff and officials complete survey  
Record Keeping: Keep all surveys and tally for review

## **F. Construction Stormwater Runoff Control**

Objective 1. Provide notice to the SESC agency and MDEQ when pollutants are discharged from construction activity  
BMP Implementation: Notification of discharges from construction activity  
Timeframe: Ongoing  
Measurable Goal: Notify Ann Arbor Township (SESC Qualifying Part 91 Agency) of any discharges of polluting materials from a construction site  
Record Keeping: Record of notifications and follow-up activities

Objective 2. Complaint process  
BMP Implementation: Hotline for reporting problems or seeking help (BHV office phone) 734-222-5209  
Timeframe: Ongoing  
Measurable Goal: Address 100% of all complaints regarding construction sites  
Record Keeping: Record of complaints and follow-up activities

Objective 3. Review and approval of preliminary site plans  
BMP Implementation: Preliminary site plans reviewed and approved according to BHV Zoning Ordinance requirements  
Timeframe: Ongoing  
Measurable Goal: Site plans are reviewed and approved by the SESC agency (Ann Arbor Township)  
Record Keeping: Site plans and approval documents

## G. Post-Construction Stormwater Runoff Program

<u>Objective 1.</u>	Regulate Post Construction Controls at new development sites and re-development sites
BMP Implementation:	Ordinance/Code or other regulatory mechanism
Timeframe:	June 2010; amended standards when available
Measurable Goal:	Adopt the Washtenaw County Water Resources Commissioner Standards, and include a requirement that Low Impact Development practices must be considered prior to other practices; Adopt any amendments to standards as they become available
Record Keeping:	Copy of current WCWRC standards; future as amended
<u>Objective 2.</u>	Regulate Post Construction Controls at new development sites and re-development sites
BMP Implementation:	Enforcement of post construction controls
Timeframe:	Ongoing
Measurable Goal:	Written procedures for enforcement
Record Keeping:	Written procedures
<u>Objective 3.</u>	Post Construction O&M
BMP Implementation:	Ordinance/Code or other regulatory mechanism
Timeframe:	Ongoing
Measurable Goal:	All new development or re-development to include the O&M requirements in design standards, as-builts and contractual agreements for owner/operator
Record Keeping:	O&M criteria in design standards and contractual agreements

## H. Pollution Prevention and Good Housekeeping Program

<u>Objective 1.</u>	Facility Inventory
BMP Implementation:	Description of facilities owned/operated by BHV
Timeframe:	January 2011
Measurable Goal:	Specific information and location map of BHV public works area, which includes administration building, equipment storage and maintenance yard, salt storage, hazardous waste storage, recycling and solid waste handling, vehicle storage and maintenance, structural controls and underground storage tank
Record Keeping:	BHV SWPPP pages 3-5, 10
<u>Objective 2.</u>	Update of Facility Inventory
BMP Implementation:	The SWPPP will be updated when facilities and structural stormwater controls are added, removed, or no longer owned or operated by BHV
Timeframe:	30 days following change
Measurable Goal:	Updated SWPPP
Record Keeping:	Updated SWPPP document showing changes
<u>Objective 3.</u>	Structural stormwater controls
BMP Implementation:	Detailed list of structural controls
Timeframe:	January 2011
Measurable Goal:	All structural stormwater controls included on the detailed list
Record Keeping:	BHV SWPPP Section 6.0

<u>Objective 4.</u>	Structural stormwater control effectiveness
BMP Implementation:	Schedule for inspections, and O&M for all structural controls
Timeframe:	January 2011
Measurable Goal:	Inspections and O&M is included in the SWPPP
Record Keeping:	BHV SWPPP Section 7.0
<u>Objective 5.</u>	Structural stormwater control effectiveness
BMP Implementation:	New facilities and stormwater controls
Timeframe:	January 2011
Measurable Goal:	All new stormwater controls will meet the post-construction standards as described above
Record Keeping:	As-built designs for new structures
<u>Objective 6.</u>	Waste management O&M
BMP Implementation:	Identify sources of waste and storage
Timeframe:	January 2011
Measurable Goal:	Describe procedures for staff regarding handling and disposal of liquid industrial waste, solid waste, and hazardous waste
Record Keeping:	BHV SWPPP Section 5.4; employee training manual Sections III/IV
<u>Objective 7.</u>	Management of BHV-owned vegetated properties
BMP Implementation:	Training for employees in storage, handling and use of pesticides, herbicides and fertilizers
Timeframe:	January 2011
Measurable Goal:	Written procedures for soil testing prior to phosphorus use, handling grass clippings, leaf collection, and lawn area maintenance
Record Keeping:	BHV SWPPP Section 5.4
<u>Objective 8.</u>	Fleet maintenance and storage yard/facilities
BMP Implementation:	Certified operator
Timeframe:	January 2011
Measurable Goal:	One staff member will meet/maintain MDEQ certified operator status
Record Keeping:	Copy of certification
<u>Objective 9.</u>	Fleet maintenance and storage yard/facilities
BMP Implementation:	Staff training
Timeframe:	January 2011
Measurable Goal:	Certified operator will oversee staff training
Record Keeping:	BHV SWPPP Section 5.6; training records
<u>Objective 10.</u>	Fleet maintenance and storage yard/facilities
BMP Implementation:	SWPPP developed and implemented to identify good housekeeping practices
Timeframe:	January 2011
Measurable Goal:	Develop BHV SWPPP
Record Keeping:	Copy of SWPPP

<u>Objective 11.</u>	Fleet maintenance and storage yard/facilities
BMP Implementation:	Refuse management (trash collection is bi-weekly or upon request from closed garages)
Timeframe:	January 2011
Measurable Goal:	Refuse containers are closed at all times and do not leak. Clean up any trash that blows around/spills
Record Keeping:	BHV SWPPP Section 5.1
Accomplished:	SWPPP approved 8/2010; monthly inspections begin 9/23/10
<u>Objective 12.</u>	Fleet maintenance and storage yard/facilities
BMP Implementation:	Inspection, O&M schedules for all BHV-owned vehicles and equipment
Timeframe:	January 2011
Measurable Goal:	Fleet vehicles are taken to private mechanics for inspection and O&M on a regular basis. All leaks are fixed right away. Other equipment is inspected and maintained in accordance with manufacturer's instructions
Record Keeping:	Log of all major maintenance
<u>Objective 13.</u>	Parking lots, roadways, bridges owned by BHV
BMP Implementation:	Reduce pollutant discharges including dust and suspended sediment from unpaved roads and parking lots
Timeframe:	Ongoing
Measurable Goal:	Paved roads hand swept when necessary to remove excess gravel or dirt, catch basins inspected and cleaned after significant rain and as needed
Record Keeping:	BHV SWPPP Section 5.1
<u>Objective 14.</u>	Parking lots, roadways, bridges owned by BHV
BMP Implementation:	Reduce TSS runoff from paved surfaces with a goal of 25% reduction.
Timeframe:	once during permit cycle
Measurable Goal:	Calculate TSS discharges based on current situation and determine necessary actions to meet the 25% reduction goal
Record Keeping:	Results of investigations for total suspended solids
<u>Objective 15.</u>	Parking lots, roadways, bridges owned by BHV
BMP Implementation:	Proper salt storage and management
Timeframe:	Ongoing
Measurable Goal:	Covered salt storage; spills cleaned up immediately
Record Keeping:	Records of any significant spill
<u>Objective 16.</u>	Catch basin cleaning
BMP Implementation:	Cleaning of catch basins as needed, including inspection and repair, and prevention of pollutants from discharging to the surface waters of the state
Timeframe:	Ongoing
Measurable Goal:	Description of cleaning process and catch basin priority
Record Keeping:	Written procedure

<u>Objective 17.</u>	Roadside pollutant assessment
BMP Implementation:	Assessment of road right-of-ways, road maintenance and cold weather operations for pollution potential
Timeframe:	Once during permit cycle
Measurable Goal:	Description of roadways/operations and pollution potential
Record Keeping:	Written assessment

## I. Total Maximum Daily Loads (TMDL)

<u>Objective 1.</u>	Phosphorus reduction
BMP Implementation:	Educate homeowners regarding fertilizers, car washing and pet waste, emphasizing the need for phosphorus reduction
Timeframe:	Ongoing
Measurable Goal:	Provide information packet to all homeowners
Record Keeping:	Copy of information and log of completion

<u>Objective 2.</u>	Phosphorus reduction
BMP Implementation:	Phosphorus ban in fertilizers
Timeframe:	Annually in spring
Measurable Goal:	Include notice of state ban on phosphorus in fertilizers in Barton Bulletin
Record Keeping:	Log of public education materials

<u>Objective 3.</u>	Phosphorus reduction
BMP Implementation:	Phosphorus monitoring at outfall No. 3 (larger than 36")
Timeframe:	Once during permit cycle
Measurable Goal:	Total phosphorus less than 0.1 mg/L
Record Keeping:	Phosphorus test results