



Rule 13 - MS4 ANNUAL REPORT

State Form 51278 (R6 / 7-12)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

For questions regarding this form, contact:

IDEM Office of Water Quality , Storm Water Program
MS4 Coordinator
100 North Senate Avenue, Room 1255
MC 65-42
Indianapolis, IN 46204-2251
Telephone: (317) 234-1601 or
(800) 451-6027, ext. 41601 (within Indiana)
Web Access: <http://www.IN.gov/idem/4900>

- NOTE:**
- Annual reports must be submitted to the Indiana Department of Environmental Management. **Failure to submit the annual report is considered noncompliance with your permit.**
 - For the **first five (5)**-year permit term, this completed form must be submitted by 1 year from the SWQMP – Part C submittal date and, thereafter, 1 year from the previous report (i.e., in years two (2) through five (5) of permit coverage).
 - In the **second and subsequent** five (5)-year permit terms, this completed form must be submitted in years two (2) and four (4) of permit coverage.
 - Please type or print in ink.**
 - Please answer all questions thoroughly and return the form by the due date.
 - Return this form and any required attachments to the IDEM Storm Water Program, MS4 Coordinator at the address listed in the box on the upper-right.

Five Year Permit Term	Reporting Year
<input type="checkbox"/> 1st Permit Term	Permit Year <u>10/2010-9/2012</u>
<input checked="" type="checkbox"/> Second and subsequent five (5) Year Permit Terms	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 MS4s in their first permit term must submit reports annually. MS4s that are in subsequent permit terms must submit in years 2 and 4 of the permit term.

PART A: GENERAL INFORMATION – MS4 OPERATOR

1. Permit Number: INR 0 4 0 073	Type of MS4: <input checked="" type="checkbox"/> City <input type="checkbox"/> Town <input type="checkbox"/> County <input type="checkbox"/> Non-traditional
2. MS4 Entity: City of Valparaiso <i>(Name of permit holder)</i>	
3. MS4 Operator: Mingyan Zhou	
4. Mailing Address: 166 W Lincolnway Valparaiso, IN ZIP: 46383 County: Porter	
5. Email Address: mzhou@valpo.us	

PART B: GENERAL INFORMATION – MS4 COORDINATOR

6. MS4 Coordinator <i>(please print)</i> : Mingyan Zhou
7. Person's Title: MS4 Operator
8. Mailing Address: 166 W Lincolnway Valparaiso, IN ZIP: 46383
9. Telephone Number: (219) 462-1161
10. E-mail Address: mzhou@valpo.us

PART C: GENERAL INFORMATION – REPORT PREPARER

11. Name: <i>(Provide this information if someone other than MS4 Operator or Coordinator completed this report.)</i>
12. Affiliation with the MS4:
13. Mailing Address: , IN ZIP:
14. Telephone Number: Extension:
15. E-mail Address:

16. Provide a summary of the following program management activities performed during the reporting period:

- a) If this is a co-permit, list all permittees and operators responsible for permit implementation for each entity.
- b) Identify changes to the MS4 area boundaries, including areas added to or lost to the MS4 area via annexation or other similar means. Provide a current map (8.5" X 11" or 8.5" X 14")
- c) Identify follow-up or additional water quality characterizations completed during the reporting period if applicable.
- d) Provide updated receiving water information completed during the reporting period if applicable.
- e) Identify funding sources (utility fees, grants, enforcement fines etc) utilized for MS4 program implementation during this reporting period.
- f) Provide a list of new active industrial sites identified during this reporting period.
- g) Provide a list of facilities owned and operated by the MS4 that require Rule 6 (industrial storm water) permits.
- h) Provide a summary of complaints received and follow-up investigation results related to storm water quality issues during this reporting period.
- i) Other:

16 a)

* City of Valparaiso, Mingyan Zhou, MS4 Operator

* Valparaiso University, Ron Brindley, Associate Director, Capital Planning & Projects and Environmental Sustainability

16 b)

The City of Valparaiso has two parcels (with the total area of 12.8 acres) annexed into the city in 2010. See the attached map for these two parcels and new MS4 area boundaries.

16 c)

The City of Valparaiso and Co-permittee Valparaiso University have been monitoring the quality of our receiving waters in Salt Creek Watershed at multiple locations since 2004. Beginning from 2011, the City of Valparaiso MS4 Operator Mingyan Zhou also started to monitor some waterways in West Branch Crooked Creek - Flint Lake watershed in and nearby the city limits, including Flint Lake Garden Terrace Drain (which has been identified as the City's receiving water) and Listenberger Drain. See the attached documents for new data collected during this reporting period. Water quality monitoring data at Flint Lake Garden Terrace Drain, and Listenberger Drain, was collected using Hoosier Riverwatch methodology. Data has been entered into the Hoosier Riverwatch database, and can also be obtained from the database (<http://www.hoosieriverwatch.com/Search/index.asp>) using the Volunteer ID 1234.

In 2011, the City of Valparaiso and Valparaiso Lakes Area Conservancy District worked together and monitored turbidity at some locations where water from the City of Valparaiso drains north to Flint Lake area. Data is also attached.

In addition, Save the Dunes Conservation Fund and IDEM have been monitoring the waters in the Salt Creek Watershed.

A draft of "Total Maximum Daily Load for Escherichia coli (E. coli) and Impaired Biotic Communities (IBC) in the Salt Creek Watershed in Porter County" was released on February 28, 2012 by Office of Water Quality – TMDL Program of Indiana Department of Environmental Management. Based on this report, segments of three Receiving Waters within the City of Valparaiso MS4 area are identified as impaired water bodies and are listed on the 303(d) water quality list. These waters include Salt Creek, Sager's Run and Beauty Creek. These segments are listed for IBC. There is no any segment within the City of Valparaiso MS4 area is listed for E. Coli.

16 d)

No new water has been identified as the co-permittee's receiving water during the reporting period.

16 e)

Stormwater fees collected from local residential and nonresidential properties are the major funding sources for the City of Valparaiso for MS4 program implementation during this reporting period.

The City of Valparaiso has also received grants for several projects that benefit stormwater quality, including:

1. The Payment for Ecosystem Services Grant Project received grant from USDA Forest Service. Northwest Indiana Regional Development Authority and JFNew also contributed to this project.
2. Save the Dunes Conservation Fund partnered with the City of Valparaiso and contributed to the retrofit and naturalization of the Wall Street Basin.

3. Save the Dunes Conservation Fund helped the City of Valparaiso obtain a grant from the 2011 EPA GLRI Grants for Thorngren Basin Naturalization and Retrofit project. The Northwest Indiana Regional Development Authority and Thorngren Industries also contributed to this project.

4. Save the Dunes Conservation Fund also contributed to the Beauty Creek East Branch Ditch Stabilization project.

For Valparaiso University, the funding sources come from the University on new projects.

16 f)
Paul Wurth, Inc. at 2800 East Evans Avenue

16 g)
None

16 h)
See the attached document for the list and summary.

16 i) Other:

In this reporting period, the City of Valparaiso MS4 Operator, Mingyan Zhou attended the following workshops and meetings, which provided great help on the implementation of the Stormwater Quality Management Plan:

- * Indiana Watershed Leadership Academy 2011
- * Stormwater Drainage Conference, February 10, 2011, West Lafayette
- * Hoosier Riverwatch Training, February 26, 2011, Hammond Environmental Education Center
- * IDDE Comprehensive Overview Workshop, April 8, 2011, Ivy Tech Community College - Lafayette
- * Advance Hoosier Riverwatch Workshop, May 9, 2011, NIRPC
- * Common Sense Erosion & Sediment Control Contractor Workshop on 5/17/2011 from 9 am to 4 pm at Elkhart County 4-H Fairgrounds
- * MS4 Annual Meeting, May 24, 2011
- * IDDE Compliance Workshop, August 5, 2011, New Chicago
- * Stormwater Committee Inspectors Group Meeting on October 19, 2011 at NIRPC
- * Stormwater Drainage Conference, February 9, 2012, West Lafayette
- * Green Infrastructure workshop, hosted by NOAA, NIRPC, and DNR on May 11, 2012 at NIRPC, Portage.
- * MS4 Annual Meeting, May 17, 2012
- * Green Town conference on September 27-28, 2012 at Valparaiso, IN.
- * Water Quality Standards Academy Web Presentation: Water Quality Standards 101, October 4, 2012
- * NIRPC MS4 Partnership Quarterly meetings
- * Northwest Indiana Storm Water Advisory Group Meeting, Hobart Department of Public Works Building

PART E: PUBLIC EDUCATION AND OUTREACH - MINIMUM CONTROL MEASURE

17. Identify the best management practices (BMPs) for public education and outreach included in your Storm Water Quality Management Plan (SWQMP) Part C and then respond to the following:

- a) Identify progress made towards development and implementation of each BMP for this minimum control measure (MCM) including timetables and measurable goals during this reporting period.
- b) Describe implementation problems encountered and changes made due to ineffectiveness or infeasibility during this reporting period.
- c) Describe program BMPs that went beyond those identified in the SWQMP.
- d) Identify storm water BMPs installed or initiated for this MCM during this reporting period.
- e) Describe program implementation partnerships and explain successes and barriers during this reporting period.
- f) Other:

17 a)
The City of Valparaiso has entered into a memorandum of understanding with NIRPC to perform the requirements of Stormwater Quality Management Plan Public Education and Outreach MCM. NIRPC's Rule 13 report for this reporting period is attached. Please refer to this document for the City's activities on the implementation of this MCM.

In addition, the following BMP has been identified in the City of Valparaiso's SWQMP Part C Update.

BMP: "Report-A-Polluter" program

Progress made: Beginning from September 2010, the City of Valparaiso started to implement a "Report-A-Polluter" program to field complaints from the public on illegal dumping, illicit discharges, poor erosion control practices, and other activities within the City MS4 area that negatively impact stormwater quality. Citizens have opportunity to submit such complaints through phone calls, the City's website, and also an email hotline as MS4@valpo.us. The program improves public involvement, and also serves as an educational tool to inform the public of hazards associated with illicit discharge and illegal dumping. The associated email was advertised on the stormwater website, and through the disseminated MS4 educational brochures and water bills.

The complaints and follow up actions taken are attached, also as the answer to 16 h).

17 b)

Insufficient personnel and budgetary constraints of our MS4 Program are main obstacles for this MCM. In addition, it has not been easy to get into schools due to the tight curriculum of the schools. During this reporting period, 12 schools have been reached regarding the City's Water Program in 2011. However, only 2 schools, Central Elementary School and Benjamin Franklin Middle School responded and agreed to have the program. Refer to 17 c) for details.

17 c)

* Water Programs at Elementary and Middle Schools: the City of Valparaiso MS4 program, together with Valparaiso City Utilities, and the NWI MS4 partnership has conducted water programs at Benjamin Franklin Middle School on 4/18/2011, and Central Elementary School on 4/28/2011. The programs reached 255 6th graders at Benjamin Franklin Middle School, and 61 5th graders at the Central Elementary School.

* Presentations given to Valparaiso University students: the City of Valparaiso MS4 Operator Mingyan Zhou has given presentations on MS4 program to 4 classes at Valparaiso University, including Prof. Laurie Eberhardt Biology class on 10/25/2010 (24 students), Prof. Laurie Eberhardt Ecology class on 10/24/2011 (13 students), Prof. Pete Weiss Urban Hydrology class, and a senior level elective class on Urban Stormwater Management on 3/15/2011 (25 students), and Prof. Pete Weiss Junior Level Hydrology Class on 2/29/2012 (25 students).

* Presentation given to other group: the City's MS4 Operator Mingyan Zhou has given a talk on MS4 Program and the City's stormwater management to Valparaiso Chain of Lakes Watershed Group on 9/17/2012. 15 people attended the meeting.

* Information on Valparaiso City Talk Quarterly Newsletter: the City's rain barrel program was advertised on 2012, Vol 3.

* Information on utility bills or as utility bill insert: stormwater quality messages were printed on Valparaiso utility bills which went out on 10/25 and 11/5/2010, 7/25 and 8/5/2011, 8/25 and 9/5/2011, 4/25 and 5/5/2012, and 6/25 and 7/5/2012. In addition, the Porter County HHW 2012 Calendar was included as a bill insert in early 2012.

* Information on City website: the MS4 program has a webpage (<http://valpo.us/MS4>) on city website, where information related to stormwater quality management is provided to public.

* Information given out at various fairs and events: the City of Valparaiso MS4 program has attended many fairs and events to educate public on stormwater quality management. The fairs attended during this reporting period included Valparaiso Popcorn Festival (9/11/2010); Porter County Earth Day Celebration events (4/16/2011, 4/21/2012); Porter County Parks Department Spring Out to Sunset event (5/14/2011); Valparaiso Green Days (8/19/2011, 8/20/2011, 8/24/2012, 8/25/2012), and the Valparaiso Green Town event (9/27/2012 and 9/28/2012).

* The City of Valparaiso and Valparaiso University hosted the Valparaiso Green Town Event on 9/27/2012 and 9/28/2012. At the conference, some stormwater quality related topics were discussed. In addition, the event from 6-9 pm on 9/27/2012 was free to encourage public to participate and get education on the current state of American cities and the economy, detailing the problems and potential solutions to today's environmental and economic ills. The City of Valparaiso MS4 Program had a booth at the event. Some stormwater management brochures and five painted rain barrels were presented at the event.

* Rain Barrel Program: during this reporting period, the City of Valparaiso has conducted three rain barrel programs to educate public on the benefit of utilizing rain barrels to harvest rain water: the Valparaiso Payment for Ecosystem Green Infrastructure Project (towards residents at Chautauqua Park Neighborhood. Refer to 18 c) for details of this project), and also the MS4 Program's rain barrel program in 2011 and 2012 (towards all city residents). Information on rain barrels and program was provided to city residents through city website, utility bills, and Valparaiso City Talk Quarterly Newspaper.

* Green Infrastructure Signage: the City of Valparaiso has applied many green infrastructure practices on city property, including constructing rain gardens and bioswales, silva cells, and pervious concrete pavement. Signs were provided at location of these practices to educate public on the benefit these practices can provide at stormwater management.

17 d)

* "Report-A-Polluter" Program was initiated for this MCM during this reporting period. Refer to 17 a) for details.

* Valparaiso University: VU will built a bio-swale at the Lot #50 this fall to treat stormwater and also serves as public education and outreach.

17 e)

The City of Valparaiso, and other 22 MS4 entities in the Northwest Indiana region, has entered into a memorandum of understanding with NIRPC and formed a partnership to perform Public Education and Outreach. In addition, the City of Valparaiso is co-permitted with Valparaiso University to implement the Stormwater Quality Management Plan.

The partnership for this MCM is overall successful. The NWI MS4 partnership made it possible to have consistent stormwater messages delivered regionally wide. Also, by concentrating the resources, professionals can be hired to perform certain work, when this work is above the capability of this partnership, such as conducting the branding project, and also the training workshops on various topics. The partnership also makes it easy to share information and experiences among MS4 entities.

Barriers include: as the partnership's main focus is to conduct public education and outreach in the region wide, it has been difficult for the partnership to reach a certain group of people in a specific community, such as getting into schools.

Valparaiso University: The VU Lot #50 bio-swale is a partnership with 'Save The Dunes' and Lakeshore Landscaping to improve storm water quality

17 f)

A Northwest Indiana Stormwater Advisory Group was formed since March 2012 by several MS4 entities in the region. The group is a coalition of MS4 entities providing leadership in the protection and enhancement of stormwater resources with Lake and Porter Counties. As a volunteer group, all participants will network and share strategies to implement stormwater quality BMPs to reduce stormwater pollution and work collectively to meet state and federal regulations. This group has provided, and will continue to provide benefit to the City of Valparaiso at the implementation of SWQMP Public Education and Outreach MCM.

18. Identify the best management practices for public participation and involvement included in your SWQMP Part C and then respond to the following:

- a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period.
- b) Describe implementation problems encountered and changes made due to ineffectiveness or infeasibility during this reporting period.
- c) Describe program BMPs that went beyond those identified in the SWQMP.
- d) Identify storm water BMPs installed or initiated for this MCM during this reporting period.
- e) Describe program implementation partnerships and explain successes and barriers during this reporting period.
- f) Other:

18 a)

The City of Valparaiso has entered into a memorandum of understanding with NIRPC to perform the requirements of Stormwater Quality Management Plan Public Participation and Involvement MCM. NIRPC's Rule 13 report for this reporting period is attached. Please refer to this document for the City's activities on the implementation of this MCM.

In addition, the following BMP has been identified in the City of Valparaiso's SWQMP Part C Update.

BMP: "Report-A-Polluter" program

Progress made: Beginning from September 2010, the City of Valparaiso started to implement a "Report-A-Polluter" program to field complaints from the public on illegal dumping, illicit discharges, poor erosion control practices, and other activities within the City MS4 area that negatively impact stormwater quality. Citizens have opportunity to submit such complaints through phone calls, the City's website, and also an email hotline as MS4@valpo.us. The program improves public involvement, and also serves as an educational tool to inform the public of hazards associated with illicit discharge and illegal dumping. The associated email was advertised on the stormwater website, and through the disseminated MS4 educational brochures and water bills.

The complaints and follow up actions taken are attached, also as the answer to 16 h).

18 b)

With the NWI MS4 Partnership regionally wide, it has been difficult for the partners to host events and engage public locally. To overcome this barrier, several programs encouraging the participation and involvement of City of Valparaiso residents were organized by the city, as shown in 18 a) and 18 c). In addition, insufficient personnel and budgetary constraints of our MS4 Program are also obstacles for this MCM.

18 c)

* Vale Park Road Cleanup Event: During this reporting period, the City of Valparaiso has hosted two Vale Park Road Cleanup events, on 8/26/2011 and 4/25/2012, respectively. The cleanup involved the removal of litter and recyclables from the ground and separating them for pick up, and also the removal of several different kinds of invasive plants that are growing in the Vale Park Road extension area. Along with resident and city leadership volunteers, Christ Lutheran Church and the Bethesda Lutheran Community also participated.

* Rain Barrel Program: the City of Valparaiso has been offering rain barrels at a reduced price to city residents since 2011. In 2011, 14 rain barrels were distributed out to city residents, and in 2012, 249 were distributed out to city residents.

* Valparaiso Payment for Ecosystem Service (PES) Green Infrastructure Project: this project is nearing completion. The basic question the project has been trying to answer is what encourages private property owners to install green infrastructure on their property, to ultimately help reduce stormwater runoff. To study this, in this project, private homeowners in the Chautauqua Park neighborhood (also called Memorial neighborhood) were encouraged to participate in an auction to bid for a rain garden, or up to 4 rain barrels. Auction materials were mailed out to 567 homes in the neighborhood, and 57 bids (19 on rain gardens and 38 on rain barrels) were received. As a result of the project, 60 rain barrels were installed and 10 rain gardens were constructed on private properties. In addition, one large demonstration rain garden will be constructed at a business in the neighborhood. Funding for this project was provided by the U.S. Forest Service, with additional funding from the Northwest Indiana Regional Development Authority and the City of Valparaiso, and in kind services (materials and labor) from JFNW.

* Green Town Event: the City of Valparaiso and Valparaiso University hosted the Valparaiso Green Town Event on 9/27/2012 and 9/28/2012. At the conference, some stormwater quality related topics were discussed. In addition, the event from 6-9 pm on 9/27/2012 was free to encourage public to participate and get education on the current state of American cities and the economy, detailing the problems and potential solutions to today's environmental and economic ills. The City of Valparaiso MS4 Program had a booth at the event. Some stormwater management brochures and five painted rain barrels were presented at the event.

* Rain Barrel Painting Project: Five rain barrels were painted and displayed at the Green Town Event. Two of them were painted by Boys & Girls Clubs of Porter County Valparaiso Unit, two were painted by Valparaiso High School, and one was painted by a club of students in Civil Engineering Department at Valparaiso University. The barrels were painted well and were well accepted by event attendees. A picture of the painted barrels is attached.

18 d)

"Report-A-Polluter" Program was initiated for this MCM during this reporting period. Refer to 18 a) for details.

18 e)

With the NWI MS4 Partnership regionally wide, it has been difficult for the partnership to host events and engage public locally. It majorly relies on the individual MS4 entities to implement this MCM although it is covered by the partnership MOU. Several nearby MS4 entities, including the City of Valparaiso, have formed another partnership (NWI Stormwater Advisory Group) to discuss ways to implement this MCM more effectively.

PART G: ILLICIT DISCHARGE DETECTION AND ELIMINATION - MINIMUM CONTROL MEASURE

19. Identify the best management practices for illicit discharge detection and elimination (IDDE) included in your SWQMP Part C and then respond to the following:

- a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period (mapping, screening, etc.).
- b) Describe implementation problems or challenges encountered, particularly as it relates to mapping and screening of outfalls during this reporting period.
- c) Identify changes made to the IDDE Plan during this reporting period if applicable.
- d) Identify updates or revisions to IDDE ordinance or other regulatory mechanism made during this reporting period.
- e) Describe level of mapping and screening completed to date. If there are unmapped or unscreened outfalls, provide a plan and a timetable for completion.
- f) Other:

19 a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period (mapping, screening, etc).

BMP identified in SWQMP Part C submitted in 2005:

BMP 1: Salt Brine usage in street de-icing

Timeline for Implementation: implemented winter 2004/2005

Measurable Goal: A reduction in salt usage in de-icing streets

Progress made: the following data shows the salt usage in street de-icing by City of Valparaiso from the winter of 2004/2005 to the winter of 2011/2012. It seems that in general, salt usage has been decreasing from 2007/2008 to 2011/2012. However, the amount of salt used at street de-icing is correlated directly to the snow precipitation of that winter. A better analysis correlating salt usage and snow depth needs to be conducted to determine the implementation of this BMP. The City of Valparaiso does not have the historical snow depth data so the analysis cannot be performed.

Year	Salt Usage (Tons)
2004-2005	5192.75
2005-2006	2226.47
2006-2007	4626.12
2007-2008	6715.24
2008-2009	2840.24
2009-2010	5392.93
2010-2011	4127.45
2011-2012	2696.5

BMP 2: Monthly City Safety Meetings

Timeline for Implementation: Already in place

Measurable Goal: Time spent on Rule 13 discussion and awareness

Progress made: The Monthly City Safety Meetings has been held until Oct. 2010. It was determined at that time that it made sense to let each department regulate their own program because each department has such different safety requirements. Since then, safety issues have been addressed by each department, and stormwater quality management issues have also been discussed at the each department's training.

BMP 3: Quarterly S.W.A.C. meetings

Timeline for Implementation: Implemented June of 2003

Measurable Goal: Rule 13 awareness to public

Progress made: Storm Water Advisory Committee (S.W.A.C.) formed in June 2003 to advise and review Storm Water and Rule 13 issues. Since August 25th 2004, the City of Valparaiso has entered into a memorandum of understanding with NIRPC to perform the requirements of Public Education/Outreach and Public Involvement/Participation MCMs of the Stormwater Quality Management Plan. The S.W.A.C. stopped to meet since 2005.

BMP 4: Prepare Illicit Discharge Ordinance

Timeline for Implementation: December 31, 2006

Measurable Goal: Adoption of Ordinance

Progress made: The City of Valparaiso's Illicit/Illegal Discharges and/or Connections to Storm Drainage System Ordinance was adopted by Valparaiso's City Council on September 11, 2006, as Ordinance No. 40-2006, and creating the Chapter 54 in the Municipal Code of the City of Valparaiso.

BMP 5: Prepare Ordinance regarding Regulations Controlling Environmental Impacts from Land Disturbing Activities

Timeline for Implementation: December 31, 2005

Measurable Goal: Adoption of Ordinance

Progress made: The City of Valparaiso has an Erosion Control On Sites with Land Disturbing Activities Ordinance in place as Part IV Article XXVIII in the City's Zoning Ordinance since the start of the City's MS4 Program. This Erosion Control Ordinance was revised and adopted as the Article 7 Division 7.400 in the Unified Development Ordinance on March 9, 2009.

BMP identified in SWQMP Part C Update submitted in 2010:

BMP 1: Develop an Illicit Discharge Detection and Elimination Plan

Timeline for Implementation: Have the plan in place by March 2011

Progress made: The plan has been developed and in place since October 2010, and last revised in July 2012. A copy of plan is enclosed.

BMP 2: Perform dry weather screening outfall inspections

Timeline for Implementation: Start from year 2011

Progress made: All the MS4 Outfalls have been dry weather screened one or more times in 2011. The screening results are managed using the city's intra-department Cartegraph system. This is an ongoing process. More inspections will be performed each year.

BMP 3: "Report-A-Polluter" program

Timeline for Implementation: Start from September 2010

Progress made: This BMP is also a compliance activity for the Public Education and Outreach, and Public Participation and Involvement MCMs. Please refer to 17a) and 18a) for details of this program.

BMP 4: Review City's current Long Term Control Plan (LTCP) for combined sewer overflow (CSO)

Timeline for Implementation: By January 2011, review LTCP to ensure consistency between the LTCP with this MCM.

Progress made: The City's Combined Sewer Overflow Long Term Control Plant has been reviewed in 2010 by MS4 Operator Mingyan Zhou to ensure consistency with this MCM. By 5/24/2012, the City of Valparaiso has completed the third phase of the wet weather capacity expansion of the Elden Kuehl Pollution Control Facility (EKPCF), which was the construction of CSO Disinfection Facilities to chlorinate and dechlorinate flows from the CSO detention tanks at EKPCF. The three-phased upgrade and expansion project was initiated following the City's CSO LTCP in order to address maximization of flow through the EKPCF. In general, Phase I was completed in 2003 and increased liquid stream treatment peak capacity from 9 million gallons per day (mgd) to 18 mgd. Phase II was completed in 2009 and increased and improved the plant's solids handling capabilities. Phase III was completed in 2012. The constructed disinfection facilities act as flow-through tanks providing treatment equivalent to primary clarification, control of settleable and floatable material, and disinfection. The Disinfection Facilities have a total volume of 4.5 million gallons and are designed to treat up to 100 mgd. The tanks now can adequately disinfect most of the overflows prior to discharge to Salt Creek. The facilities' chlorination system will significantly reduce harmful fecal coliform levels of the treated CSO prior to discharge to Salt Creek.

19 b)

Insufficient personnel and budgetary constraints are main obstacles for the implementation of this MCM. Although the mapping and screening of outfalls were both ranked at the BEST level by IDEM at the IDDE audit, the screening of outfalls could be made better by increasing the screening frequency and inspection equipment if the city's MS4 program has more manpower and budget to utilize on this MCM.

19 c)

The City of Valparaiso and Valparaiso University's IDDE plan was completed and in place since October 2010. The plan was revised in July 2012 to update information on the impaired waterbodies and to incorporate a strategy to remove water bodies from the IDEM 303(d) list. The plan is attached.

19 d)

No updates or revisions have been made to the City of Valparaiso's IDDE ordinance during this reporting period.

19 e)

The City of Valparaiso completed a GIS based map that includes mapping of all outfalls, MS4 conveyances, and applicable land use data. Map also includes private and mutual drains, impervious surfaces and industrial and commercial facilities with SIC codes. The City of Valparaiso also mapped all the septic systems in the city in our GIS database, which can overlay with wellhead protection map and allows us to coordinate all aspects of water quality management. In addition, all the restaurants in the city are also mapped in our GIS database. Valparaiso University completed a paper based map with all outfalls and conveyances in the university MS4 area.

All the MS4 Outfalls have been dry weather screened one or more times in 2011. The screening results are managed using the city's intra-department Cartegraph system. This is an ongoing process, and more inspections will be performed each year.

The mapping and screening have been ranked as the "BEST" according to the results of the IDDE audit conducted on July 13, 2012.

19 f)

1. Monitoring of the City's Receiving Waters

Since 2004, the City of Valparaiso and Valparaiso University co-permittees have been conducting annual biological and chemical monitoring of the City of Valparaiso's receiving waters in Salt Creek Watershed. Beginning from 2011, the City of Valparaiso also started to monitor some waterways in Kankakee River watershed in and nearby the city limits, including Flint Lake Garden Terrace Drain (which has been identified as the City's receiving water) and Listenberger Drain. See question 16 c) for details.

2. Provided update to City Council on 8/13/2012 on the MS4 program and IDDE audit results. The minutes is attached.

3. Training Workshops

During this reporting period, the City of Valparaiso MS4 Operator has attended many meetings and training workshops to get education on the requirement and implementation of this MCM. The meetings and training workshops are listed at 16 i).

20. List the best management practices for the construction site storm water run-off program identified in your SWQMP Part C and then respond to the following:

- a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period.
- b) Describe program implementation partnerships and explain successes and barriers during this reporting period.
- c) Identify the number of construction sites permitted during this reporting period and identify the number and type of enforcement actions taken against construction site operators during the same period.
- d) Identify the number and types of training opportunities that were provided to contractors, developers, and builders during this permit period.
- e) MS4 personnel responsible for plan review, inspection, and enforcement of construction activities shall receive, at a minimum, annual training addressing appropriate control measures, inspection protocol, and enforcement procedures. Identify training provided to MS4 personnel responsible for these activities during this reporting period.
- f) Identify updates or revisions to the storm water construction ordinance or other regulatory mechanism made during this reporting period.
- g) Other:

20 a)

BMP 1: Revision of City's Erosion Control Ordinance

Timeline for implementation: December 31, 2005

Measurable Goals: Adoption of revised ordinance by Common Council

BMP 2: Adopt Inspection Program (Part Revision of City's Erosion Control Ordinance)

Timeline for Implementation: December 31, 2005

Measurable Goals: Adoption of revised ordinance by Common Council

BMP 3: Reexamine Violation Fines and Enforcement (Part Revision of City's Erosion Control Ordinance)

Timeline for Implementation: December 31, 2005

Measurable Goals: Adoption of revised ordinance by Common Council

Progress made for the above three BMPs: The measurable goals of these BMPs have been accomplished. The City of Valparaiso has revised its Erosion Control On Sites with Land Disturbing Activities Ordinance, which was Part IV Article XXVIII in the City's Zoning Ordinance, and adopted its revised ordinance as the Article 7 Division 7.400 in the Unified Development Ordinance on March 9, 2009.

20 b)

The City of Valparaiso and some other MS4 entities in Northwest Indiana has formed a Stormwater Advisory Group to share information and experience at the implementation of the MCMs, including Construction Site Storm Water Run-Off Control. Setting up consistent standards for developers, builders and contractors to follow regionally wide is very important. It will make it easier for developers, builders and contractors to follow the rules, and it will also make it easier for inspectors to do inspection and enforcement. From this aspect, this NWI Stormwater Advisory Group partnership will be successful.

Barriers: insufficient personnel and budgetary constraints of our MS4 Program are main obstacles for this MCM.

20 c)

The Construction/Stormwater Pollution Prevention Plan of sixteen (16) Rule 5 construction sites has been reviewed and Technical Review and Comment forms have been issued by the City of Valparaiso during this reporting period. See attached file for the list.

Enforcement actions: The City of Valparaiso uses a commercial software TrakIT to keep records of all the erosion control enforcement actions. By querying the software, it shows between 10/1/2010 and 9/25/2012, a total of 69 enforcement actions, including issuing 56 warnings, 10 fines and 3 Stop Work Orders, have been taken. The enforcement actions have been issued not only to the above mentioned 16 Rule 5 sites, but also to other Rule 5 sites in the city that have obtained permits before the start of this reporting period, and also some other non Rule 5 sites.

20 d)

The NWI MS4 Partnership, the NWI Stormwater Advisory Goup and the City of Valparaiso have not provided any training workshops to contractors, developers and builders during this permit period. However, an erosion and sediment control informational sheet developed by DNR Division of Soil Conservation and a Site Plan template including the detailed requirement of gravel entrance and silt fence installation have been provided to contractors, developers and builders every time a building permit is issued by the City of Valparaiso.

20 e)

During this reporting period, the City of Valparaiso MS4 Operator has attended many meetings and training workshops to get education on the requirement and implementation of this MCM. The meetings and training workshops are listed at 16 i).

20 f)

The City of Valparaiso's Erosion Control On Sites with Land Disturbing Activities Ordinance was not updated or revised during this reporting period.

The City of Valparaiso is drafting a revised stormwater management manual. The purpose of this document is to update and unify existing stormwater engineering standards into a single document available to the public. The document is currently in preliminary draft stages and we are requesting input from interested stakeholders. Adoption of this manual is tentatively planned for January, 2013.

20 g)

YMCA pavilion complaint and audit: A permit review and site inspection was conducted by IDEM on February 1, 2012 at YMCA, 1201 Cumberland Crossing Dr, Valparaiso. This review and inspection was generated by a citizen's complaint about sediment leaving the Valparaiso YMCA property and entering into Flint Lake. At the audit, the City of Valparaiso MS4 provided documentation that the YMCA site was being monitored on a weekly basis and that water turbidity sampling conducted at the outfalls was within guidelines provided by the Hoosier Riverwatch Volunteer Stream Monitoring guidelines. Refer to 16 c) in attachment for data. The Valparaiso MS4 initiated a methodology to assess discharges associated with the YMCA site. The MS4 continues to work cooperatively with the YMCA, the VLACD, and Porter County to monitor discharges into Flint Lake. The Valparaiso MS4 has developed a comprehensive IDDE program that has a process in place to address run-off issues in a timely manner. IDEM determined that best management practices were in place and every effort was being made by all parties to address the discharge into Flint Lake. The project has a high priority for the Valparaiso MS4. No further action would be taken at the time of audit. After the audit, the site was continuously monitored by Valparaiso MS4 until it was determined that vegetation at the site has established well enough. The Certificate of Occupancy was issued to YMCA on Sep. 5, 2012.

Vaparaiso University: VU works with contractors on site prep for construction. This includes silt fence control from the Functional Specifications that VU issues to contractors prior to construction. The contractors also have to maintain this throughout the project until either turf is established or paving occurs.

PART I: POST-CONSTRUCTION STORM WATER RUN-OFF CONTROL - MINIMUM CONTROL MEASURE

21. List the best management practices for post-construction storm water run-off control identified in your SWQMP Part C and then respond to the following:

- a) Identify progress made towards development and implementation of each BMP in the SWQMP including timetables and measurable goals during this reporting period.
- b) Describe implementation problems encountered and changes due to ineffectiveness or infeasibility during this reporting period.
- c) Describe program implementation partnerships and explain successes and barriers.
- d) MS4 area personnel responsible for implementation of the post-construction minimum control measure shall receive, at a minimum, annual training. Identify training provided for this minimum control measure during this reporting period.
- e) Identify updates or revisions to the post-construction storm water ordinance or other regulatory mechanism made during this reporting period.
- f) Other:

21 a)

BMP 1: Controlled Discharge Required (City of Valparaiso Drainage Ordinance)

Timeline for Implementation: Currently in place

Measurable Goal: Continued application of the ordinance

Progress made: Continued application of the ordinance

BMP 2: Storm Sewers, Structures, Ditches, Swales, and Culverts (City of Valparaiso Drainage Ordinance)

Timeline for Implementation: Currently in place

Measurable Goal: Continued application of the ordinance

Progress made: Continued application of the ordinance

BMP 3: Detention Basins (City of Valparaiso Drainage Ordinance)

Timeline for Implementation: Currently in place

Measurable Goal: Continued application of the ordinance

Progress made: Continued application of the ordinance

BMP 4: Proper Design and Construction of Discharge Control Structure and Overflow (City of Valparaiso Drainage Ordinance)

Timeline for Implementation: Currently in place

Measurable Goal: Continued application of the ordinance, number of reported problems/complaints downstream

Progress made: Continued application of the ordinance

BMP 5: Requirement for Improved Storm Water Management with Renovation of Existing Developed Sites (City of Valparaiso Drainage Ordinance)

Timeline for Implementation: Currently in place

Measurable Goal: Number of renovated existing sites

Progress made: the City of Valparaiso has retrofitted and naturalized the Wall St Detention Basin in 2011 (construction) and 2012 (planting) by creating microtopography (including ponds with standing water and meandering channels between ponds) and planting native plants in the basin. Similar retrofit and naturalization will be done to Thorgren Basin, and the construction just started in Sept. 2012. Converting the basins from dry bottom with turf grass to wet bottom with native plants in wetland and prairie planting zones can provide stormwater quality benefits including removing pollutants, improving habitat and biotic communities. In addition, the naturalized basin also provides larger stormwater storage capacity, provides aesthetic benefits and reduced maintenance costs. In addition to these two basins, the Franklin Street detention basin has been enhanced by removing invasive species, and planting native plants. The City of Valparaiso has also maintained and stabilized two segments of badly eroded ditches in 2012, including a segment at Beauty Creek East Branch, and a ditch segment at Wood Street.

21 b)

Budgetary constraints are the major obstacles for the implementation of this MCM.

21 c)

The City of Valparaiso has partnered with Save the Dunes Conservation Fund for the retrofit and naturalization of the Wall Street basin and Thorgren basin. Save the Dunes helped the City of Valparaiso obtain a grant from the 2011 EPA GLRI Grants for Thorgren Basin project. In addition, the Northwest Indiana Regional Development Authority and Thorgren Industries also contributed to this project. The City of Valparaiso also partnered with Save the Dunes on the Beauty Creek East Branch Ditch Stabilization project.

21 d)

During this reporting period, the City of Valparaiso MS4 Operator has attended many meetings and training workshops to get education on the requirement and implementation of this MCM. The meetings and training workshops are listed at 16 i).

21 e)

No updates or revisions have been made to the City of Valparaiso's post-construction storm water ordinance. However, the City of Valparaiso is drafting a revised stormwater management manual. The purpose of this document is to update and unify existing stormwater engineering standards into a single document available to the public. The document is currently in preliminary draft stages and we are requesting input from interested stakeholders. Adoption of this manual is tentatively planned for January, 2013.

21 f)

The City of Valparaiso and Valparaiso University have installed many stormwater management Green Infrastructure (GI) practices for post-construction stormwater management.

In the City of Valparaiso, the installed GI included: rain gardens at Forest Park Golf Course off Hole 1 and Hole 16, North Calumet Ave, Central Calumet Ave (four rain gardens have been dug and constructed, but plants are not planted yet), Valparaiso City Utilities Water Department, Central Park Plaza, Indiana Street parking lot, Jefferson Street parking lot, Silhavy&Vale Park Rd Roundabout, Sturdy&LaPorte Roundabout, and Porter County Jail; two silva cells at Central Park Plaza; one wash station at Forest Park Golf Course; one strip of pervious concrete pavement at Jefferson St parking lot, and infiltration basins including Porter County Jail basin, Wall Street Basin and Thorgren Basin (project has started, but not finished yet).

The GI installed at VU included: rain gardens at Gellersen Addition, Tennis Court, Wehrenberg Hall, and South Loop; and one strip of pervious pavement next to Kallay-Christopher Hall. In addition, VU will install a new rain garden at LOT 50 next to Law School this Fall.

The City of Valparaiso and Valparaiso University GI maps are attached.

The City of Valparaiso is a nationally designated Tree City, and has identified planting trees as a stormwater management BMP. The City of Valparaiso has begun to budget money for tree replacement since 2001. From 2007 to 2009, the city invested in a database that inventoried all City owned trees in the Right-of-Way. The inventory includes locations, species and condition of all city trees as well as indentifying future planting sites. In 2012, our work focus on establishing canopy goals, ensuring species diversity, engaging in regular pruning activities, and improving watershed areas which do not have a lot of trees.

22. List the best management practices for municipal operations pollution prevention and good housekeeping identified in your SWQMP Part C and respond to the following:

- a) Identify progress made towards development and implementation of each BMP in the SWQMP including timetables and measurable goals during this reporting period.
- b) Describe implementation problems encountered and changes due to ineffectiveness or infeasibility as it relates to pollution prevention and good housekeeping at MS4 owned and operated facilities during this reporting period.
- c) Identify storm water BMPs installed or initiated at MS4 owned and operated facilities.
- d) Identify and describe appropriate storm water training provided to MS4 employees. Employees are required to have a minimum training once per year.
- e) Other:

22 a)

BMP 1: Salt Storage Facility

Timeline for Implementation: 2007

Measurable Goal: Completion of the Facility

Progress has been made: Measurable goal has been achieved. The City of Valparaiso's Public Works Department purchased and constructed the salt storage facility in 2005. This storage allows the salt the City uses for deicing to be completely covered. This is the only salt storage area the City owns. Previously salt was stored outside open to the elements.

BMP 2: Partnering with Valparaiso University regarding salt storage and management

Timeline for Implementation: 2007

Measurable Goal: Completion of agreement for V.U. to use the City's salt storage facility, end using its own salt storage facility, and therefore eliminate an unneeded potential for additional pollution.

Progress has been made: It was later determined by both the City and the University that it was not necessary to implement this identified BMP. Valparaiso University has its own covered salt storage at 610 Don Hovey. The IDEM MS4 Coordinator Reggie Korthals visited this site at the audit for the MCMs 1, 2, and 6 in 2009 and had no issues with Valparaiso University's salt storage. She also visited the City site on Don Hovey, and there were not any issues with it neither.

BMP 3: Physical Improvements to Public Works Department Regarding Water Quality

Timeline for Implementation: 2007

Measurable Goal: Completion of Improvements

Progress has been made: The City of Valparaiso's Public Works Department purchased and constructed the salt storage facility in 2005. Completed in summer of 2006, the City removed its municipal refueling station located next to the receiving water, Salt Creek, due to environmental concerns over possible spills and receiving water contamination. The City has entered into an agreement with Speedway to have cars/small trucks refuel at their gas stations. Larger City Vehicles refuel at our Public Works facility. Installed secondary containment measures for all storage of petroleum products to prevent any spillage from contaminating ground water. Fuel spill clean-up kits were purchased and placed by the facility's fuel island and other storage locations.

22 b)

Insufficient personnel and budgetary constraints are the major obstacles for the implementation of this MCM.

22 c)

The City of Valparaiso partnering with Save the Dunes Conservation Fund constructed a wash station at Forest Park Golf Course in 2010 to wash off equipments including mowers etc. The wash station is a concrete pad with containment. The pad drains to a lower pad where solids are captured during washing. The liquid continues on to a rain garden where it percolates. The solids (such as grass clippings) are collected and disposed of in the compost pile.

In addition to the rain garden installed next to the wash station to catch wash water from the station, another two rain gardens (off Hole 1 and Hole 16, respectively) have been installed at the Forest Park Golf Course, to filter and treat stormwater runoff from parking area and the golf course.

A Stormwater Pollution Prevention & Spill Response Plan (SWPPP) has been developed and posted at city facilities where there is a potential to produce stormwater pollutants. A self-inspection is conducted once per year at these facilities to ensure they are in compliance with this MCM. The SWPPP and self inspection checklist are attached.

22 d)

During this reporting period, the City of Valparaiso MS4 Operator has attended many meetings and training workshops to get education on the requirement and implementation of this MCM. The meetings and training workshops are listed at 16 i).

In addition, two training videos, "Stormwater Pollution Prevention Storm Warnings, Everyday Best Management Practices", and "Municipal Stormwater Pollution Prevention Storm Watch, Everyday Best Management Practices" have been utilized for city employee training. Spill response procedures and prevention of illicit discharges are included. The employees in the following departments have been trained: Public Works, Valparaiso City Utilities Water Reclamation and sewer department, Water Department, Parks Department, Project Management, Engineering Department, Fire Department and Police Department. The training sign up sheets are attached.

22 e) Other

Other activities performed by the City of Valparaiso that aid in the improvement of the stormwater quality:

Stormwater catch basins and intakes cleanup: catch basins and intakes are cleaned and treated every year during the permit cycle and annual volumes collected are recorded.

Street sweeping: the City of Valparaiso has purchased two street sweepers to help keep city's streets clean. On average, all city streets are swept twice a year with additional sweeping on heavily traveled routes when needed. Annual amount of debris collected are recorded in tons.

Trash pick-up: trash is collected weekly by Public Works Department.

Special trash pickups: the city also provides pick-up of extra trash and construction debris with a charge. Furniture, appliances and electronic items are picked up free of charge .

Brush and yard waste: Valparaiso Public Works Department provides residents with curbside brush and yard waste collection. Collection takes place throughout the week. Residential brush and yard waste (including limbs, brush, bushes, roots, leaves, etc.) are accepted. Brush and yard waste picked up by the City is taken to the city-owned state-sanctioned composting facility located at 2150 W. Lincolnway, where they are composted to produce compost and mulch available to residents.

Leaf pick-up: Leaves are picked up during leaf seasons by Public Works Department from every neighborhood once a week during the leaf season (totally 6 or 7 times). The leaves picked up are also taken to the composting facility to produce compost and mulch.

Recycling: Valparaiso has been a leader in municipal recycling services for more than 15 years. The city currently has a 52% diversion rate - meaning more than half of the city's curbside waste is diverted from the landfill and recycled. The city encourages participation by all residents and businesses — even those with private waste service at an apartment complex or business. Acceptable items include paper (newspapers, magazines, junk mail, etc.), cardboard, glass bottles and jars, plastic containers that are labeled for recycling, numbers 1 through 5, and metal cans and jar lids.

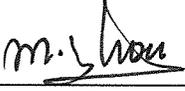
Cathy Csatari, Senior Environmental Manager of IDEM's Compliance and Technical Assistance Program, visited three city campuses on April 4, 2012, including Public Works, Elden Kuehl Pollution Control Facility, and Parks and Recreation Department's facility next to Harrison Blvd at the Forest Park Golf Course. Her visit was prompted by the City's interest in continuing the Indiana CLEAN Community Challenge. Some concerns regarding good housekeeping, mainly about secondary containment, at these three facilities were raised by her during her visit. After receiving the report, the City of Valparaiso MS4 Program and related personnel in these departments worked together on the issues she identified. To make sure the concerns raised by her have all been addressed well, inspection of these three facilities were conducted by MS4 Operator Mingyan Zhou and personnel at these facilities on 6/29/2012 for the Elden Kuehl Pollution Control Facility, 7/2/2012 for the Public Works, and 9/20/2012 at Parks and Recreation Department's facility next to Harrison Blvd at the Forest Park Golf Course.

PART K: CERTIFICATION AND SIGNATURE

The individual listed in "PART A: GENERAL INFORMATION – MS4 OPERATOR" must sign the following certification statement:

"By signing this annual report, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Type or Print Name: Mingyan Zhou

Signature: 

10/29/2012
(mm/dd/yyyy)