RULE 13 ANNUAL REPORT

State Form 51278 (R / 6-03)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

For questions regarding this form, contact:
IDEM – Rule 13 Coordinator
100 North Senate Avenue, Rm 1255
P.O. Box 6015
Indianapolis, IN 46206-6015
Phone: (317) 234-1601 or
(800) 451-6027, ext. 41601 (within Indiana)
Web Access:
http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

NOTE:

- In order to comply with 327 IAC 15-13-18, annual reports must be submitted to the Indiana Department of Environmental Management. **Failure to submit this form will be 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, by 1 and 3 years from the SWQMP – Part C resubmittal date.
- **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 addenda to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

REPORTING YEAR (Check one)

- ☐ 2005
- ☐ 2006
- ☒ 2007
- ☐ 2008
- ☐ 2009
- ☐ 2010
- ☐ 2011
- ☐ 2012
- ☐ 2013

PART A: GENERAL INFORMATION – MS4 OPERATOR

1. Report Completed By: Matthew Kras
(MS4 Operator — i.e., name of permit holder)

2. Permit Number: IN R 0 4 0 0 7 3

3. Mailing Address
Street Address: 166 Lincolnway

☒City ☐Town Of: Valparaiso	Zip:46383	County:Porter

PART B: GENERAL INFORMATION – CONTACT PERSON

4. Contact Person Name (please print): Matthew Kras, P.E., CPESC
5. Contact Person Title: City of Valparaiso Stormwater Engineer/ MS4 Operator
6. Phone Number: (219) 462-1161
7. Facsimile Number (if applicable): (219) 464-4273
8. E-mail Address (if applicable): kras@netnitco.net

PART C: CONTROL MEASURE ACTIVITIES

9. For the following items, please provide a summary of control measure activities related to Rule 13 performed during the previous year.
List any updated measurable goals from the SWQMP, compliance activities, BMPs installed or initiated, updated programmatic indicator data, and updated or developed regulatory mechanisms with effective dates.

Public Education and Outreach:

MCM-1: Storm Water Quality Management Plan Public Education and Outreach [327 IAC 15-13-12]

327 IAC 15-13-12 (a) (b) (c) Storm water quality management plan public education and outreach MCM

The City of Valparaiso has entered into a memorandum of understanding with NIRPC to perform the requirements of MCM-1. NIRPC's Rule 13 annual report for 2007 has been provided. Please reference this document along with the NIRPC report for activities involving MCM-1.

a. Public Involvement and Participation:

MCM-2: Storm Water Quality Management Plan Public Participation and Involvement [327 IAC 15-13-13]

327 IAC 15-13-13 Storm water quality management plan public participation and involvement MCM

The City of Valparaiso has entered into a memorandum of understanding with NIRPC to perform the requirements of MCM-2. NIRPC's Rule 13 annual report for 2007 has been provided. Please reference this document along with the NIRPC report for activities involving MCM-2.

In addition to Valparaiso's contract with NIRPC, the City has created a link for information on the City's Rule 13 program. The information on this site informs the public of what the City is doing to improve water quality.

b. Illicit Discharge Detection and Elimination:

Activity – BMP

The City of Valparaiso's proposed *Illicit Discharge and Connection Stormwater Ordinance* was adopted by Valparaiso's City Council on September 11, 2006, as **Ordinance No. 40-2006** - An ordinance creating Chapter 54 in the Municipal Code of the City of Valparaiso, addressing illicit/illegal discharges and/or connections to storm drainage system.

The purpose of this ordinance provides for the health, safety, and general welfare of the citizens of the City of Valparaiso, Indiana through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

(1) To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by storm water discharges by any user
(2) To prohibit Illicit Connections and Discharges to the municipal separate storm sewer system
(3) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance

I would like to have in place this year an annual spreadsheet to track the number of illicit connection made to the City's sewer system. This would provide us with specific numbers as to how many connections have been taken off our storm, sanitary, and combined sewers. I will be working with our Utility Dept. to develop the spreadsheet.

Illicit discharges by our collections department have been disconnected on an "as found" basis or from citizens reporting the connections.

Measurable Goal

The number of illicit connections disconnected from the City's Storm Sewer System

Schedule for Completion

Ordinance adopted September 11, 2006, spreadsheet to be in place asap(2008).

c. Construction Site Storm Water Run-off Control:

Activity – BMP

The City of Valparaiso currently has in place an ordinance for *Erosion Control On Sites With Land Disturbing Activities.* This ordinance provides for the administration, enforcement, and amendment of this ordinance for controlling soil erosion within the City of Valparaiso, Indiana.

The objective of this ordinance is the control of wind borne and/or water borne soil erosion and the resulting sedimentation that is accelerated by land disturbing activities in the City of Valparaiso. Measures taken to control erosion and sedimentation should assure that sediment is not transported to improper locations by wind or water. The intent of this ordinance is to require practices that will control soil erosion and thereby minimize the amount of soil and sediment leaving sites where the vegetative cover has been disturbed. The ordinance applies to land disturbing activities including those associated with agricultural, commercial, industrial, institutional, residential and highway development.

All erosion control measures, including, but not limited to those required to comply with this ordinance, shall meet the design criteria, standards and specifications as adopted by the Board and those listed in the "INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS".

An erosion control plan, (the plan) shall be submitted with each application for an Erosion Control Permit. The Board shall have the authority to waive any of the requirements for the plan.

Control of erosion and sediment through the entire duration of the land disturbing activity is the responsibility of the applicant. The following measures shall be utilized where required to provide the necessary control.

1. Runoff from off-site and flowing through the land in question shall be diverted around the land disturbing activity by means of swales, channels, ditches, culverts or storm sewers. The diversion may be a temporary installation, utilized only until the land disturbing activity is complete, or it may be a permanent part of the proposed improvement on the land. Such diversion shall not be such that it causes drainage or erosion problems down stream.
2. Any detention basin proposed for the site should be utilized during construction as a sediment basin to trap as much soil as possible. Such basins shall be designed for this purpose, utilizing over excavation for temporary sediment storage, temporary perforated standpipes and or stone filters as required by proper engineering design.
3. Temporary sediment traps may be required in areas where runoff exits the site and is likely to carry sediment from eroded soils on the site. The temporary traps shall be sized proportionate with the expected flow rate from the site.
4. Ingress and egress to the site shall be by way of coarse stone drive(s) of sufficient length to cause soil picked up by the tires of vehicles to be dropped before the vehicle enters the roadway. Drives shall be designed and situated so that they provide maximum protection against tracking of soil or mud onto the street. For single family and duplex home sites the stone drive should coincide with the final location of the drive to the residence.
5. Drain inlets and entrances to culverts shall be protected with an installation of silt fence.
6. All disturbed ground left inactive for a period of twenty-one (21) days shall be seeded, sodded or stabilized with mulch or equivalent. Between the dates of October 1 and the release of the frost law in the following year, the disturbed ground shall be stabilized with the use of silt fence or approved equivalent.
7. Storage piles of soil left for longer than 3 days shall be completely encircled with silt fence. If left inactive or unused for longer than twenty-one (21) days the pile shall be seeded, sodded, or covered with a mulching fabric or tarpaulins.
8. Stone check dams shall be used in open drainage courses to slow velocities of the runoff and allow sediment to drop out of the runoff.
9. Silt fence shall be installed along the down slope edges of all disturbed areas on the site. In general, silt fence shall be installed at the edges of pavements, adjoining properties and open watercourses whenever the adjacent ground slopes towards that street, adjoining property or watercourse.

All erosion control measures shall be maintained throughout the course of the construction or until the growth of vegetation has made them unnecessary. If silt fence is temporarily removed to allow access to a portion of the site it shall be re-installed at the end of the workday. The applicant is responsible for the maintenance of all erosion control measures.

The City of Valparaiso has taken over Rule 5 plan reviews for all developments within the City limits as of 1-1-07.

Measurable Goal

The number Rule 5 permits reviewed and the number of warnings and/or fines levied to applicants of the erosion control permit for construction sites within Valparaiso. 16 Developments received Rule 5 permits in 2007 within the City.

Schedule for Completion

The City of Valparaiso currently inspects construction sites for proper erosion control on an as needed basis, meaning as time permits and/or as erosion control deficiencies are brought to the City's attention.

d. Postconstruction Storm Water Management in New Development and Redevelopment:

Activity – BMP
The City of Valparaiso is currently looking at updating its *REQUIREMENTS FOR STORM DRAINAGE AND FLOODPLAINS* to include new water quality BMPs including, but not limited to, catch basin/inlets with traps on the outlet pipes and sumps in the bottom, dry bottom detention basins, sediment basins, underground storage, vegetated swales, infiltration trenches, raingardens, filter strips, porous pavement, modular pavement, rooftop storage, rain barrels, green roofs, oil/grit separators, and slope stabilization. Time has been the issue for revising this ordinance and a consultant may be needed to do it.

The City Council updated it's Floodplain Ordinance on December 17, 2007 to incorporate revisions requested by IDNR to be in compliance with the National Flood Insurance Program.

Measurable Goal
The number of new water quality BMPs installed annually.

Schedule for Completion
We would like to have the ordinance in place by the end of 2008.

Workshop Attended:
Storm Water Technical Training – *Construction Erosion and Sediment Control* – hosted by NIRPC, SWCD, IDEM on November 15, 2007 at NIRPC in Portage from 9:30-3:30

e. Pollution Prevention and Good Housekeeping for Municipal Operations:

General maintenance activities are done by the City's Public Works and Collections Departments. The Collections Department cleans catchbasins and sewer lines at least once a year. A list is made, by the Collections Department, of priority areas, which are first addressed, with catchbasins and sewer lines of lesser priority following. The Collections Department also works on remediation of outfall scouring.

Activity – BMP
Combine Stormwater Department with Utility Department

Measurable Goal
Completion of Combination

Schedule for Completion
The Stormwater Department joined the City's Utility Department in order to form a more uninterrupted authority to deal with drainage issues within the City. Before the combination, the stormwater department had to request the utilities crews for any drainage issue requiring labor. The combination was approved by the Valparaiso City Council on July, 9, 2007.

Activity – BMP
The City has continued its receiving water monitoring program.

Measurable Goal
Changes in water quality and improvement/recognition of program

Schedule for Completion
Ongoing

Activity – BMP
Improvements to City website – In the Summer of 2007 the City's Stormwater Management Board combined with the City's Utility Board. Stormwater issues will now have a streamlined chain to go from problem to resolution.

Measurable Goal
Number of improvements made

1. Updated/changed City website to reflect incorporation in City's Utility Department, updated contact info to IDEM, made SW Department page more accessible from City website.
   DATE UPDATED: JULY 07

Schedule for Completion
Ongoing

10. Provide any data regarding the following programmatic indicators, since the previous annual report (Attach separate sheets as necessary, and indicate, as appropriate, the rationale behind not using a listed indicator):

i. Number or percentage of citizens that have an awareness of storm water quality issues

Refer to updated measurable goals in MCM 1 and 2 contracted with NIRPC

ii. Number and description of meetings, training sessions, and events conducted to involve citizens

Refer to updated measurable goals in MCM 1 and 2 contracted with NIRPC

iii. Number and location of storm drains marked or cast

Storm drain stenciling had taken place on the north end of the City with the Valparaiso Lakes Conservancy District. The City of Valparaiso, at this time, has not continued to do stenciling. The Das Curb Markers that we used did not seem to provoke interest from from nearby residents and the issue of having to reglue and fasten the markers is time consuming. Plus, curb inlets and drains in new and redevelopment have environmental signage stamped into the castings.

Estimated linear feet or percentage of MS4 conveyances mapped

The City of Valparaiso has mapped approximately 80% of its MS4 conveyance system between aerial topography and City sewer maps.

iv. Number and location of MS4 area outfalls mapped

The City of Valparaiso has finished mapping approximately 30% of all outfalls with a 2-foot or greater diameter. In the summer of 2007, the City purchased a portal gps unit that will be able to be taken in the field to locate and map outfalls.

v. Number and location of illicit discharges detected

Illicit discharges found by our collections department have been disconnected on an "as found" basis.

A database for illicit discharges is under construction for a future measurable goal.

vi. Number of, and amount of material collected from, HHW collections

In 2007 the Valparaiso HHW collection at the Porter County Fairgrounds collected 103,687lbs of waste. There were 2 collections.

On April 21st 518 cars dropped off 48,594lbs and on October 20th 586 cars dropped off 55,093lbs

vii. Number and location of citizen drop-off centers for automotive fluids

AutoZone, Jiffy Lube, and WalMart will accept some common car wastes. All of these businesses are located within Valparaiso City limits.

The HHW collections also accept automotive fluids.

viii. Number of construction sites permitted for storm water quality

All new construction on commercial or industrial sites and all construction sites of 1 acre or more are looked at for stormwater quality and erosion/sediment control. In 2007, the City of Valparaiso had 16 private developments that needed Rule 5 permits.

ix. Number of construction sites inspected

All new construction sites are inspected and areas with erosion control problems are reinspected on an "as needed" basis. Areas of concern are inspected on a minimum weekly basis.

x. Number and type of enforcement actions taken against construction site operators

Fines (up to $250/day) and warnings are issued on construction sites on an "as needed" basis. The City hired a part time inspector in the Summer of 2007 to help with erosion/sediment control inspections and enforcement.

In 2007 the City of Valparaiso sent out a total of 174 warnings to builders/developers and 77 fines for erosion control violations. The total amount collected in fines was $12,250.

xi. Number, type, and location of structural BMPs inspected

Candlewood Pond, Fairgrounds Park Basin, Hotter Lagoon, Knode Creek Basin #1, Knode Creek Basin #2, Wall Street Basin, Catch Basins, Roadside Swales.

xii. Number, type, and location of structural BMPs maintained, or improved

Candlewood Pond, Fairgrounds Park Basin, Hotter Lagoon, Knode Creek Basin #1, Knode Creek Basin #2, Wall Street Basin, Catch Basins, Roadside Swales.

xiii. Type and location of nonstructural BMPs utilized

Street sweeping, contracted NIRPC public education/outreach and public participation/involvement, and Valparaiso's erosion control ordinance
These BMPs are utilized throughout the City, and in the case of NIRPC's contract, throughout the tricounty area.

xiv. Estimated acreage or square footage of open space preserved and mapped

Valparaiso has approximately 4.50mi^2 (30% of total area) as open space. Our open space increased roughly 50% over 2005 due to nearly 2.5 newly annexed acres of undeveloped land. The newly annexed areas are underdevelopment...most residential.

xv. Estimated acreage or square footage of mapped pervious and impervious surfaces

The City of Valparaiso currently has approximately 1950 acres of impervious surface and 7770 acres of pervious surface. Approximately 488 impervious acres come from streets and sidewalks and approximately 1,462 acres from roofs/driveways/parking areas. These approximations are based off of the City's aerial photographs and annual road GASB reporting for 2006.

xvi. Number and location of retail gasoline outlets or municipal, state, federal, or institutional refueling areas with installed BMPs

xvii. Estimated acreage or square footage and location where pesticides, herbicides and fertilizers are applied by the entity

The City currently applies pesticides, herbicides, and/or fertilizers to some areas within its 17 parks(applied mostly on athletic field areas), Forest Park Golf Course. Approximately 40 acres has pesticides, herbicides, and/or fertilizers applied within our parks, 38 acres on our golf course, and approximately 3 acres of miscellaneous City property. These estimates are based on information provided from our Parks Department.

xviii. Estimated linear feet or percentage and location of MS4s cleaned or repaired

The City cleans its stormwater conveyances on an as needed basis. In 2006, the City of Valparaiso cleaned 6,817 linear feet of storm sewer mains, and spent 169.5 hours performing this service. The City spent 317.5 hours maintaining the City's roadside ditches and swales.

xix. Number and location of storm water outfall areas remediated from scouring conditions

The City of Valparaiso began and finished construction on a project this year (2007) to remediate severe scouring and erosion conditions in part of Beauty Creek. This project limits the flow from an existing 36" pipe by providing a buried low flow pipe (8" pvc) along the creek. This 8" pipe conveys the normal flow and allows the 36" pipe to be used as an overflow only.

xx. Number and location of de-icing salt and sand storage areas covered or otherwise improved to minimize storm water exposure

The City of Valparaiso's Public Works Department purchased and constructed a 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. The City does not use sand for deicing.

xxi. Estimated amount, in tons, of salt and sand used for snow and ice control

The amount of salt used in 2007 year was 6578.94 tons of salt for snow and ice control.

xxii. Estimated amount of material collected from catch basin, trash rack, or other structural BMP cleaning

In 2007 the City of Valparaiso's Collections Dept. cleaned approximately 392.4 yd3 of debris from intakes, beehives, and catch basins.

xxiii. Estimated amount of material collected from street sweeping

The amount of debris collected from street sweeping in 2007 is approximately 2354.16 tons. This is based on our Public Works Department's monthly documentation.

PART D: MISCELLANEOUS INFORMATION

11. On-Going Water Quality Characterization Activities

a) Monitoring Data (submit summary of appropriate results):

Pollution Tolerance
Index numbers for our biomonitoring in 2007 were as follows:

Site 1 (Sager's Run) **44**
Site 2 (Parker Ditch by rte 2 bridge) **29**
Site 3 (Rt.2 /US 30 intersection) **38**
Site 4 (at old iron bridge site by Vineyard/ Applebee's) **57**
Site 5 (downstream of wasterwater plant Joliet Rd) **48**

Pollution Tolerance Index (PTI) Rating	
23 or More	Excellent
17-22	Good
11-16	Fair
10 or Less	Poor

12. Discuss any problems encountered during this period (include any BMP changes in response to problems encountered).

Time and budgetary constraints are still our main obstacles.

13. Identify any non-routine (i.e. do not include routine maintenance or cleaning) budgetary transactions related to your permit. List all storm water improvement projects started during this reporting period.

1. Beauty Creek – Oakwood – Golf Course Course Project Phase 1: The City of Valparaiso began and finished construction on a project this year (2007) to remediate severe scouring and erosion conditions in part of Beauty Creek. This project limits the flow from an existing 36" pipe by providing a buried low flow pipe (8" pvc) along the creek. This 8" pipe conveys the normal flow and allows the 36" pipe to be used as an overflow only.

2. Union Street Area Storm Sewer Project 1: This project constructed new storm sewer along Valparaiso Street from Union Street to Lincolnway and at the intersection of Union Street and Axe Avenue. This project provided drainage relief to areas along Valparaiso Street that have experienced significant drainage problems and allowed for sewer separation of a combined sewer

3. Golf Course Raingardens: The City is working with the Save the Dunes Conservation Fund to install 2 raingardens at the City's Forest Park Golf Course. These raingardens will demonstrate to the public what a raingarden does and how it works. Design and excavation were started in the Fall of 2007 and planting will take place this Spring

4. Wall Street Basin: The ditch leading to this basin was cleaned to allow proper drainage and prevent flooding of parking areas where excess pollutants can be picked up.

14. Provide a summary of complaints received and the follow-up actions taken in reference to storm water quality issues.

Erosion Control at construction sites is the main source of complaints that I encounter. The complaints received are delt with quickly and appropriately. Construction sites not in compliance with the City's erosion control ordinance usually receive a warning, and then if the problem is not corrected, a fine is levied. We continue to improve on our inspections and hired an inspector to help with erosion control in the Summer of 2007. This addition has already greatly benefit our erosion control program by allowing for increased inspections, communication with builders/developers, and enforcement.

In 2007 the City of Valparaiso sent out a total of 174 warnings to builders/developers and 77 fines for erosion control violations. The total amount collected in fines was $12,250.

15. Implementation status:

a. Are the six minimum control measures being implemented within the compliance schedule and SWQMP timetables?
☒Yes ☐No*

The 6 MCMs are being implemented.
The City has some BMPs in place for all 6 MCMs, but is not fully complete with all MCMs. The City of Valparaiso has, and is continuing to implement programmatic indicators, BMPs, and measurable goals to the 6 MCMs

b. Do you foresee any problems which may affect full implementation of all the measures?
☐Yes ☒No*

However, insufficient personnel and budgetary constraints will probably continue to be our main obstacles

c. Are the six minimum control measures meeting percent reduction goals specified in the SWQMP?
☒Yes ☐No*
* If no, explain:

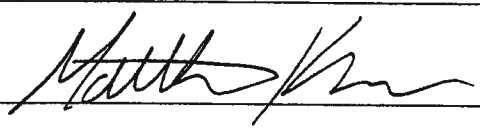
The City's 6 MCMs are new and it is too difficult to determine accurate percent reductions at this time. The City's SWQMP is certainly farther along than it was a year or two ago, but I think it will be many years before we can accurately say that we are noticing significant measurable reductions in stormwater pollution.

PART E: CERTIFICATION AND SIGNATURE

► **The individual completing this report, listed in "PART A: GENERAL INFORMATION – MS4 OPERATOR" must sign the following certification statement:**

"By signing this Rule 13 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: **Matthew Kras, P.E., CPESC**

Signature: 

Date: **1/31/08** 1-31-08
(mm/dd/year)