



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: <u>Matthew Kras</u> (MS4 Operator — i.e., name of permit holder)			
2. Permit Number:	IN	0 0 7 3	
3. Mailing Address Street Address: 166 Lincolnway			
<input checked="" type="checkbox"/> City <input type="checkbox"/> Town	Of: Valparaiso	Zip: 46383	County: Porter

PART B: GENERAL INFORMATION – CONTACT PERSON

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

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:

The Northwest Indiana Storm Water Public Education and Outreach and Public Involvement and Participation Program, derived from the requirements of the Phase II MS4 permit, focuses on improving urban storm water quality through the implementation of Best Management Practices as required under Indiana's Municipal Separate Storm Sewer System (MS4) Rule 13 Guidance, 327 IAC 15-13. The Northwestern Indiana Regional Planning Commission (NIRPC) has entered into a memorandum of understanding (MOU) with MS4 communities in Lake and Porter Counties to develop and implement MCMs 1 and 2.

The NIRPC program is conducted and implemented on a regional scale to provide a coordinate and consistent message for the region and to identify measurable goals that quantify the progress of program implementation and performance. These BMPs and measurable goals will help establish a baseline against which future progress at reducing pollutants to the MEP can be measured.

NIRPC is working with the MS4 Partners to identify specific community needs and to target every population sector in the future. The MS4 Advisory Workgroup will continue to meet on a bi-monthly bases.

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

Activity – BMP Completed	Measurable Goal	Schedule – Date Completed
Website	Create a website featuring educational materials for target constituents. Goal of 1000 hits annually.	Website created Updated website to be completed December 2006
Survey on stormwater issue awareness	Establish a continuous assessment tool of basic storm water issue awareness through an internet based survey. Goal of 500 completed surveys annually.	Survey developed and posted January 2006. Evaluation December
Educational Brochures	Develop or use existing brochures for target constituents. Goal of 10,000 brochures distributed.	Develop or locate digital brochures Feb Print March Distributed May-Nov; 140,000 items printed and distributed
Classroom Education/Teacher Training	Utilize existing Project Wet curriculum and distribute to classrooms	Distribute materials May and October 2006 Materials used May-Dec 2006
Regional Newsletter	Develop and distribute quarterly newsletter on NIRPC MS4 program activities	Create and distribute in Feb, May, Aug, & Nov 2006

MCM-1 Continued in NIRPC 2006 Annual Report

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

Activity – BMP Completed	Measurable Goal	Schedule – Date Completed
MS4 Stormwater Advisory Group	Involve constituents in the process early and continue to engage interested citizens	Ongoing participation through 2008
Community Volunteer and Involvement Programs	Identify community volunteer programs(ICRAT) and work with groups to increase membership	Begin in April 2005 and is ongoing
Storm Drain Marking	Train and Educate Community Partners on storm drain marking Advisory Group will identify how program will assist communities in drain marking	Four (4) MS4 entities organized volunteer groups: City of Gary, City of Hobart, City of Valparaiso, Valparaiso University
Coordinate Meetings	Work with MS4 Communities to coordinate meeting with IDEM, EPA, NIRPC and stakeholders	MS4 advisory Group has not made a decision on a region wide storm drain marking program
Drainage Basin Signs	Install basin identification markers along roadways	IDNR Coastal Program held a contest to create the signage for basin markers for Lake, Porter, and LaPorte Counties. 85 markers will be placed on the roadways inside the Lake Michigan Watershed Basin. To be completed by end of 2006

Additional information regarding proposed and completed MCM-1 and MCM-2 is found in NIRPC's 2006 Annual Report. Available upon request.

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

Measurable Goal

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

Schedule for Completion

Ordinance adopted September 11, 2006.

Workshop Attended:

Attended 2006 Contractor's Workshop for erosion control "Design Program" sponsored by Hamilton County SWCD. The workshop was held at the Marriott East Hotel(7202 Est 21st Street) in Indianapolis, IN.

DATE HELD: 2/15/06

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. The City has began monthly summary reports in September of 2006 for erosion control violations.

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.

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 2007.

Workshop Attended:

Attended 2006 Contractor's Workshop for erosion control "Design Program" sponsored by Hamilton County SWCD. The workshop was held at the Marriott East Hotel(7202 Est 21st Street) in Indianapolis, IN.

DATE HELD: 2/15/06

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

Physical improvements to Public Works Department regarding water quality

Measurable Goal

Completion of Improvements

Schedule for Completion

Public Works site has begun improvements and is still looking to have renovations completed by 2007

Activity – BMP

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.

Measurable Goal

Completion of Improvements

Schedule for Completion

Completed in Summer of 2006

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

Locally Published Articles regarding Stream Monitoring

1. Published Thursday, November 2, 2006 VU News Release
2. Published Thursday, November 9, 2006. Article in NWI Times "Fly species serve as pollutant alarm".

Activity – BMP

Improvements to City website

Measurable Goal

Number of improvements made

1. Updated/changed City website with new links to IDEM's Rule 5 and Rule 6 permits, online Valpo rainfall intensity curves and depth charts, link to NIRPC's MS4 page, new link to Valpo's Erosion Control Ordinance and Stormwater Drainage/Floodplain Ordinance, explained "FREE RAIN GAUGES" (w/pics) giveaway on behalf of our SWMB, made SW Department page more accessible from City website.

DATE ACCOMPLISHED: Feb. 06

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 City is rethinking stenciling as a BMP due to insufficient awareness/reduction in goals. Personnel and time constraints are 2 obstacles.
 - iv. Estimated linear feet or percentage of MS4 conveyances mapped
The City of Valparaiso has mapped approximately 35% of its MS4 conveyance system
 - v. 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.
 - vi. Number and location of illicit discharges detected
An illicit discharge was reported at 4201 Montdale Dr.
Number and location of illicit discharges eliminated
4201 Montdale Dr. – Diesel Fuel Spill at *Block Heavy & Highway Products Co.* on 11/30/06. Truck driver's fuel tank was punctured spilling 35-45gal of diesel fuel. Absorbent material from emergency spill kit was used to collect the spilled diesel fuel and a boom was placed across the nearest storm sewer inlet. Please see report in address file for further info. DATE OF SPILL: 11/30/06
All other 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.
 - vii. Number of, and amount of material collected from, HHW collections
In 2006 the Valparaiso HHW collection at the Porter County Fairgrounds collected 38,634 total pounds of wastes. The HHW collection is sponsored by the Porter County Solid Waste Department.
 - viii. 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.
 - ix. 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.
 - x. Number of construction sites inspected
All new construction sites are inspected and areas with erosion control problems are reinspected on an "as needed" basis.
 - xi. 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 of Valparaiso has taken over Rule 5 inspections/penalties starting 1-1-07

xii. 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.

xiii. 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.

xiv. 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.

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

Valparaiso has approximately 4.50mi² (30% of total area) as open space. Our open increased roughly 50% over last year due to nearly 2.5 newly annexed acres of undeveloped land.

xvi. 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.

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

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

xviii. 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.

xix. 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 8,206 linear feet of storm sewer mains, and spent 235.8 hours performing this service. The City spent 305.5 hours maintaining the City's roadside ditches and swales.

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

The City of Valparaiso began 1 project this year to remediate severe scouring and erosion conditions in part of Beauty Creek. This project will limit the flow from an existing 36" pipe by providing a buried low flow pipe along the creek bottom. The banks of the creek will be armored to minimize more erosion.

xxi. 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. Previously salt was stored outside open to the elements. The City does not use sand deicing.

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

The amount of salt purchased for the 2006 year was 1,228.48 tons of salt for snow and ice control due to the mild winter we've had, so far

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

In 2006 the City of Valparaiso's Collections Dept. cleaned approximately 342.3 yd³ of debris from intakes, beehives, and catch basins.

xxiv. Estimated amount of material collected from street sweeping

The amount of debris collected from street sweeping in 2006 is approximately 1990.61 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 2006 were as follows:

- Site 1 (Sager's Run) 48
- Site 2 (Parker Ditch by rte 2 bridge) 32
- Site 3 (Rt.2 /US 30 intersection) 31
- Site 4 (at old iron bridge site by Vineyard/ Applebee's) 52
- Site 5 (downstream of wastewater plant Joliet Rd) 28

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

Published Articles Regarding Valpo Stream Monitoring

1. Published Thursday, November 2, 2006 VU News Release
2. Published Thursday, November 9, 2006. Article in NWI Times "Fly species serve as pollutant alarm".

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

Insufficient personnel and budgetary constraints are 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.

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, 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.

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 should be hiring another inspector to help with erosion control. This addition will greatly benefit our erosion control program by allowing for increased inspections.

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

Signature: 

Date: 1/31/07

(mm/dd/year)

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Making the most of mud

Biology students sift through sediment, study samples to submit to city, gain experience in environmental ecology

John Hazlett

TORCH STAFF WRITER

It's not often that a bunch of college students wallowing in goo will provide a valuable service to the city. However, students in Professor Laurie Eberhardt's biology class can do just that while learning about the environment.

For the third consecutive year, Valparaiso University students will be able to study aquatic ecology and different microorganisms while assisting city officials in examining pollution in the city's water supply.

Eberhardt says students taking the course are getting a quality experience while out in the field.

"This class is especially appropriate for people interested in outside field work," said Eberhardt. "There's no better way to get experience than taking advantage of the service learning aspect of this course."

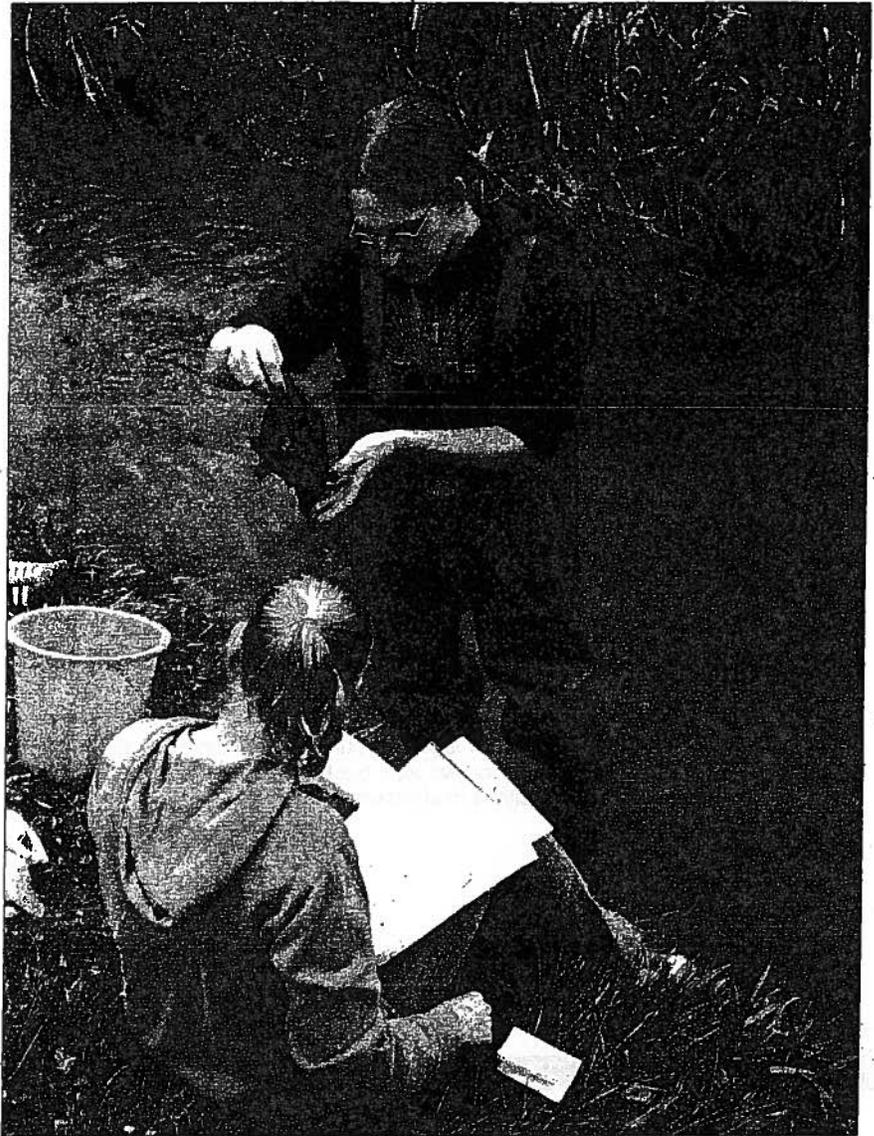
Over a two-week period, students in Eberhardt's course visit five different locations in Salt Creek, spending several hours examining the bottom of the creek. Students search for things such as macro-invertebrates by using a net and other fishing utilities. Eberhardt says a careful examination of the organisms below the stream will determine the pollution level of the water.

"You find some interesting stuff down there. There's a lot of worms," Eberhardt said.

According to Eberhardt, the city approached VU three years ago asking that the university help assist in gathering information on pollution from storm water. Students do their share by writing reports of their findings and sending them to the city.

Matt Kras, storm water engineer for the city of Valparaiso, said the information students collect is vital for proving that the city is meeting the state water pollution standards.

"Number one, the data we get from students gives us a baseline for Salt Creek, and then we can compare from year to year to year whether or not the



Scott Fonferko/Torch

Members of Professor Laurie Eberhardt's biology class examine specimens taken from Salt Creek. Each year, they present their findings to the city of Valparaiso.

water quality is improving," Kras said. "Second, the data will let us know right off the bat whether there are any major problems in Salt Creek."

Students in the class say they enjoy the field work, and having the chance to help out the community.

"Class is a lot of fun, especially with the experiments and everything else we get to do," said senior Danielle Nunnally. "I like personally that we can test what we learn in class and not just read about

it. I like the hands-on aspect of it."

Eberhardt said VU plans to continue the course after this year, regardless of whether the city continues to ask for assistance.

"The plan will be to do it every year. Students really like this project and we really see no benefit in not continuing it," Eberhardt said.

Contact John Hazlett at torch.news@valpo.edu.

tures during their time in the Peace Corps.

"I have run into so many misconceptions

federal jobs," Hoostal said. "Also, Peace Corps has a partnership with many graduate schools that offer reduced cost and free graduate programs in a variety of disciplines."

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