Hanover
Engineering Associates Inc

June 9, 2014

Mr. Paul Grella
Department of Environmental Protection
Northeast Regional Office
Watershed Management Program
2 Public Square
Wilkes-Barre, PA 18711-0790

RE: NPDES Individual Permit for MS4
Year 11 Annual Report PAI-132235
Allen Township
Northampton County
Hanover Project A14-20

Dear Mr. Grella:

Please find enclosed one (1) copy of the following documents:

- MS4 Annual Report Form
- Outfall Inspection Reports and Photographs, dated May 30, 2014

If you have questions or require additional information, please contact the undersigned.

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.

Jason E. Smith, PWS
Senior Scientist

jes:pjk
S:\Projects\Municipal\AllenTwp\A14-20-MS4-2014\Report-2013-14\CoverLetter-MS4 2013-14.doc

Enclosure(s)

cc: Ms. Ilene Eckhart, Township Manager (with enclosures)

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERSHED MANAGEMENT

MS4 ANNUAL REPORT FORM
FOR STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

Reporting Period

(Check appropriate block. Fill in the year for the reporting period you are submitting the report if not listed.)

☐ March 10, 2008 through March 9, 2009 (due June 9, 2009)
☐ March 10, 2009 through March 9, 2010 (due June 9, 2010)
☒ March 10, 2013 through March 9, 2014 (due June 9, 2014)

SECTION I – SMALL MS4 OPERATOR INFORMATION

1. **Name of MS4 Permittee and NPDES Permit Number**
   Name: Allen Township PAG: _____ PAI: 132235
   Co-permittee : _____

2. **Location**
   Municipality: Allen Township County: Northampton
   Watershed Name(s): Hokendauqua Creek, Lehigh River, Catasauqua Creek

3. **Contact Person from the MS4**
   Name: Ilene Eckhart Title: Manager Phone: 610.262.7012
   Fax: 610.262.7364 Email: manager@allentownship.org

4. **Permittee Mailing Address**
   Address: 4714 Indian Trail Road
   City: Northampton State: PA Zip Code: 18067

5. **MS4 Website (If applicable)**
   URL: _____

6. **Permittee's Consultant/Engineer Information (If applicable)**
   Company Name: Hanover Engineering Associates, Inc.
   Consultant/Engineer Name: Brien R. Kocher, PE Title: Township Engineer
   Phone: 610.691.5644 Fax: 610.691.6968 Email: bkocher@hanovereng.com
   Address: 252 Brodhead Road, Suite 100
   City: Bethlehem State: PA Zip Code: 18017

Use additional pages if necessary.

SECTION II – MCM INFORMATION

7A. Have you completed all required activities for?

Year 1: Yes ☒ No ☐
Year 2: Yes ☒ No ☐
Year 3: Yes ☒ No ☐
Year 4: Yes ☒ No ☐
Year 5: Yes ☒ No ☐

7B. Complete the following section for each watershed-based or Act 167 Storm Water Management Plan.

Watershed Plan Name Global Act 167 Stormwater Management Plan Water Quality Update (Feb. 2006)
Is this an Act 167 Plan? Yes ☒ No ☐
If yes, has DEP approved the plan? Yes ☒ No ☐
If yes, give date: October 4, 2006
Is the ordinance required by the plan enacted: Yes ☒ No ☐
If yes, give effective date: July 12, 2007 ORD 2007-03
If the ordinance is not enacted, please provide the anticipated enactment date _____
and explain the status: _____

Watershed Plan Name _____
Is this an Act 167 Plan? Yes ☐ No ☐
If yes, has DEP approved the plan? Yes ☐ No ☐
If yes, give date: _____
Is the ordinance required by the plan enacted: Yes ☐ No ☐
If yes, give effective date: _____
If the ordinance is not enacted, please provide the anticipated enactment date _____
and explain the status: _____

Watershed Plan Name _____
Is this an Act 167 Plan? Yes ☐ No ☐
If yes, has DEP approved the plan? Yes ☐ No ☐
If yes, give date: _____
Is the ordinance required by the plan enacted: Yes ☐ No ☐
If yes, give effective date: _____
If the ordinance is not enacted, please provide the anticipated enactment date _____
and explain the status: _____

Use additional pages if necessary.

7C. Please provide current contact name and phone number information:	
MCM #1 Public Education and Outreach on Storm Water Impacts	
Name: Ilene Eckhart, Township Manager	Phone: 610.262.7012
MCM #2 Public Involvement/Participation	
Name: Ilene Eckhart, Township Manager	Phone: 610.262.7012
MCM #3 Illicit Discharge Detection and Elimination (IDD&E)	
Name: Ilene Eckhart, Township Manager	Phone: 610.262.7012
MCM #4 Construction Site Storm Water Runoff Control	
Name: Brien R. Kocher, PE, Township Engineer	Phone: 610.691.5644
MCM #5 Post-Construction Storm Water Management in New Development and Redevelopment	
Name: Brien R. Kocher, PE, Township Engineer	Phone: 610.691.5644
MCM #6 Pollution Prevention/Good Housekeeping for Municipal Operations	
Name: Scott Uhnak, Public Works Director	Phone: 610.262.7012

Use additional pages if necessary.

MCM#1 - PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS — MINIMUM CONTROL MEASURE

8A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Update Target Audience Information (Have you reviewed your public education plan for accuracy and content and made any relevant changes regarding your target audiences and their communication channels? If so, include/attach your revised plan.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township provides builders and township residents with the DEP pamphlet, When It Rains It Drains. Also, news articles have been featured in the Township's newsletters.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

8B. **BMP: Continue public education and outreach.** (What was accomplished during the past permit year regarding: Developer education/outreach? Storm water ad in local newspaper? Provide posters or other information to schools and businesses? Storm drain stenciling/marking? Maintain website links and provide website educational info? Educational information in your newsletter? Any other public education/outreach?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township hangs posters in the lobby of the municipal building.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#1 (continued)

9. **MS4s USING <u>OWN</u> *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol, approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

MCM#2 - PUBLIC INVOLVEMENT/PARTICIPATION — MINIMUM CONTROL MEASURE

10A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Update your Public Involvement and Participation Plan (PIPP). (Have you reviewed your PIPP for accuracy and content and made any relevant changes? If so, include/attach your revised PIPP.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Current information is handed out with building permit applications and the Planning Commisison requests that all developers have Erosion and Sediment Pollution Control Plans submitted to the Township.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

10B. **BMP: Notify and solicit public input/involvement regarding implementation of your Storm Water Management Program.** (How and when did you solicit public input/involvement? What were the results/accomplishments during the past permit year?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Stormwater runoff and soil erosion control issues are discussed at Township public meetings. The tasks needed for Township compliance with these regulations are discussed and the public is given the chance for input.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#2 (continued)

11. **MS4s USING <u>OWN</u> *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol, approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

MCM#3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E) — MINIMUM CONTROL MEASURE

12A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Map all outfalls and receiving water-bodies. (Is your map up-to-date and accurate? Have you mapped additional features that can assist your outfall screening program, such as inlets, piping and outfall drainage areas? If updated, please submit)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: **The Township has identified and mapped twenty (20) outfalls, for which drainage area delineations are currently being prepared.**

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

12B. **BMP Implement and enforce ordinance to satisfy this Minimum Control Measure.** (How was ordinance implemented and enforced during the past permit year in order to meet the goals of this MCM?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township adopted the Ordinance on March 22, 2005 (Forwarded with 2005 Report).

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

12C. **BMP: Distribute IDD&E specific educational material.** (What educational material was distributed to public employees, businesses and the general public concerning the hazards associated with illegal discharges and improper disposal of waste? Who received it? When?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township prepared and is implementing the Stormwater Pollution Prevention and Operation and Maintenance Program dated June 8, 2005 (previously forwarded with 2005 Report). Also see above reference to public education and outreach.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#3 (continued)

12D. **BMP: Establish priority areas, conduct screening/sampling and take appropriate actions as needed.** (Describe how the priority area was established and which outfalls were selected for screening during the past permit year. Summarize the results of your outfall screening/sampling. Include properly completed illicit discharge field screening form for any problem outfall. Include the illicit discharge quarterly summary report form. Describe the corrective actions taken to eliminate any illicit discharges or connections.)

Number of outfalls in system: 20

Number of outfalls screened during the past permit year: 20

Number of screenings conducted during the past permit year: 1

Number of outfalls/screenings with dry weather flow during the past permit year: 7

Number of dry weather flows sampled during the past permit year: none

Number of outfalls determined to have an illicit discharge or connection during past permit year: none

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The outfalls were inspected and photographed on May 1, 2013 (included in last year's report) and on May 30, 2014 (see attached photographs). No pollution was observed. Corrective actions were not needed. Listed below are the GPS coordinates for the twenty (20) outfall sites:

Outfall 1A: 40.677024°, -75.462237°
Outfall 1B: 40.676885°, -75.461737°
Outfall 2: 40.675945°, -75.464897°
Outfall 3A: 40.683371°, -75.456854°
Outfall 3B: 40.683499°, -75.457043°
Outfall 4: 40.684463°, -75.469709°
Outfall 5A: 40.683147°, -75.471295°
Outfall 5B: 40.683022°, -75.471254°
Outfall 6: 40.681848°, -75.472108°
Outfall 8: 40.695750°,-75.467170°
Outfall 9: 40.710291°, -75.470660°
Outfall 10:40.711664°, -75.471162°
Outfall 11A: 40.713186°, -75.469938°
Outfall 11B: 40.713454°, -75.469317°
Outfall 12: 40.714180°, -75.468693°
Outfall 13: 40.724410°, -75.472293°
Outfall 14A: 40.725701°, -75.472898°
Outfall 14B: 40.726293°, -75.472869°
Outfall 15: 40.723356°, -75.480537°
Outfall 16: 40.720253°, -75.505401°

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#3 (continued)

13. **MS4s USING <u>OWN</u> *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol, approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Use additional pages if necessary.

MCM#4 - CONSTRUCTION SITE STORM WATER RUNOFF CONTROL — MINIMUM CONTROL MEASURE

14A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Implement and enforce ordinance to satisfy this Minimum Control Measure. (How was ordinance implemented and enforced during the past permit year in order to meet the goals of this MCM?).

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Erosion and Sediment Pollution Control Plans and Post Construction Maintenance are required by the Township SALDO. Developers must enter into agreements to guarantee that work will be preformed in accordance with the plans and that the Operation and Maintenance of the stormwater BMPs will be provided by the future owners.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

14B. **BMP: Implement procedures for the review and enforcement of Erosion and Sediment (E&S) Control Plans.** (Who reviewed E&S Control Plans during the past permit year? Did the MS4 permittee conduct any E&S site inspections? Briefly describe any enforcement activities undertaken by the MS4 permittee.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Developers must meet the Township and State regulations, and both the Northampton County Conservation District and the Townhip have enforcement powers. The Township Engineer and County Conservation District personnel review Erosion and Sediment Pollution Control Plans.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

14C. **BMP: Provide education and outreach for developers and builders.** (What educational/outreach materials were distributed to developers/builders during the past permit year?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Developers learn by reading the SALDO and attending public meetings. In the field, Township and County inspectors help explain regulatory issues, and ensure compliances.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#4 (continued)

14D. **BMP: Require construction site operators to control waste at the construction site.** (What was done in the past permit year to require construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Developers must sign improvement agreements which specify that they can not litter the property or cause offsite damage.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

14E. BMP: **Implement procedures for the receipt and consideration of information submitted by the public.** (Summarize any information or complaints received from the public during the past permit year concerning construction site storm water runoff. Briefly describe how you responded to any such information/complaints?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Citizens may provide input to the Township staff or Township Supervisors. Input may be directed to the Township Engineer, if they involve earth moving activities. The Township may also request assistance from the Northampton County Conservation District, if the Developer does not immediately correct the problem. The Zoning Officer and Public Works Director provide enforcement for other violations. DEP is notified of pollution incidents, other than Erosion and Sediment Pollution Control problems.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

Use additional pages if necessary.

MCM#4 (continued)

15. **MS4s USING <u>OWN</u> *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol, approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Use additional pages if necessary.

MCM#5 - POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT — MINIMUM CONTROL MEASURE

16A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Implement and enforce ordinance to satisfy this Minimum Control Measure. (How was ordinance implemented and enforced during the past permit year in order to meet the goals of this MCM?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: Developers are required to provide and follow Post Construction Stormwater Mangement plans. Also, the current Stormwater Management Ordinance requires developers to enter into agreements for the installation and long term operation and maintenance of stormwater facilities. These agreements are recorded.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

16B. **BMP: Ensure that all Post-Construction Storm Water Management (PCSWM) BMPs in new or re-development areas are built as designed, and operated and maintained properly.** (Summarize how the MS4 permittee accomplished this during the past permit year. Include a list of all applicable PCSWM BMPs.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Stormwater Management Ordinance requires PCSM and agreements that the owners will maintain their BMPs. Inspections by the Township Engineer also ensure proper installation and function.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#5 (continued)

17. **MS4s USING <u>OWN</u> *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol, approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Use additional pages if necessary.

MCM#6 - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS — MINIMUM CONTROL MEASURE

18A. **MS4s USING DEP *PROTOCOL* for this MCM**

BMP: Implement an operation, maintenance, inspection and repair program for all municipally owned storm water facilities. (Describe how your program was implemented during the past permit year. Include your written Operation & Maintenance (O&M) plan, if not previously submitted.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township Staff continually train in the operation and maintenance of facilities they own, and the Township uses the "Stormwater Pollution Prevention and Operation and Maintenance Program," prepared June 8, 2005. The Township has purchased an inlet stencil and has painted warning lables on inlets as a reminder to citizens not to use the inlets to dispose of anything other than stormwater.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

18B. **BMP: Implement a pollution prevention/operation and maintenance program for all municipal vehicle/equipment operation, maintenance, fueling, and washing activities.** (Describe how your program was implemented during the past permit year. Include your written pollution prevention/O&M plan, if not previously submitted.)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Townhip Staff trains new employees so that the Operation and Maintenance Program is followed. Special attention has been given to proper truck cleaning after salting during the winter to minimize runoff of pollutants.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

18C. **BMP: Conduct BMP 18A and 18B training for appropriate municipal employees.** (Who was trained? When was the training conducted? What was the subject matter?)

☒ Measurable goal for this BMP was met. ☐ Measurable goal for this BMP was not met.

Describe how goal was met; or if not met, give an explanation and proposed corrective actions: The Township Manager and Public Works Director train the other employees.

Is this BMP appropriate to meet your identified measurable goal? ☒ Yes ☐ No. If No, please provide additional information on other BMP(s) that would meet the goal.

MCM#6 (continued)

19. ☐ **MS4s USING OWN *PROTOCOL* FOR THIS MCM**

If you are implementing your own protocol approved by the Department, describe the current status of this Minimum Control Measure. In the boxes below list all BMPs and measurable goals you identified on your NOI or application approved by DEP. If the goals were met, describe how they were met. If they were not met, describe the current status of each and when/how they will be met.

Goal #1

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #2

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Goal #3

List/Describe BMPs and measurable goal (Approved by DEP):

Describe how measurable goal was met:

If not met, describe reason(s), current status, plans and schedule for meeting the goal:

Use additional pages if necessary.

SECTION III – CERTIFICATION

CERTIFICATION STATEMENT

I certify under penalty of law that 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.

Ms. Ilene Eckhart, Township Manager
Name and official title

Signature

5/30/14
Date

Sworn and subscribed to before me, this 30th day of May, 2014

Notary Public

State of PA
County of Northampton

My commission expires 9/8/2016

(Notary Public Seal and Stamp)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Amy L. Glass, Notary Public
Northampton Boro, Northampton County
My Commission Expires Sept. 8, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Use additional pages if necessary.

ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 1-A **Date:** 5/30/14 **Time:** 2025

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 15" RCP AND 15" N-12 PLASTIC PIPE
200 YARDS SOUTH OF INTERSECTION OF BULLSHEAD AND WILLOWBROOK ROADS

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 1-B **Date:** 5/30/14 **Time:** 2020

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): GRASS-LINED SWALE IN PARK

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE OUTFALL OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN
OTHER: PARK LANDS W/ PARKING AREAS

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 2 **Date:** 5/30/14 **Time:** 2015

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 24" N-12 PLASTIC PIPE w/ CONCRETE ENDWALL

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: SCHOOL CAMPUS

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OIL SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: FOAM (BATH & PLASTIC BOTTLE)

VEGETATION CONDITION: (NONE) (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 3A **Date:** 5/30/14 **Time:** ~~E~~ 2030

TIME SINCE LAST RAIN: ≥72 hours (72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): GRASS-LINED SWALE WITH FOUR (4) ELLIPTICAL CULVERTS

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER:

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): STAGNANT WATER AT CULVERT OUTLET
b. APPROXIMATE DEPTH OF WATER (feet):
c. APPROXIMATE FLOW VELOCITY (feet per second):
d. FLOW RATE (cubic feet per second) = a x b x c =

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER:

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: NONE OILY SHEEN GARBAGE/SEWAGE OTHER: DEBRIS / GRASS CLIPPINGS

DEPOSITS/STAINS: NONE (SEDIMENTS) MINOR OILY OTHER:

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER:

FIELD ANALYSIS:
WATER TEMP: °F / °C CHLORINE (Total): mg/l
pH: COPPER: mg/l
PHENOL: mg/l DETERGENTS: mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS:

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 3-B **Date:** 5/30/14 **Time:** 2035

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JEK

SITE DESCRIPTION:
LOCATION (Narrative Description): GRASS-LINED SWALE FROM WAYNE CRUSE PARK

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE OUTFALL OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN
OTHER: PARK LAND

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 4 **Date:** 5/30/14 **Time:** 1745

TIME SINCE LAST RAIN: ≥72 hours (≤72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 15" N-12 PLASTIC AND 30" N-12 PLASTIC in CONCRETE HEADWALL

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: NONE OILY SHEEN (GARBAGE/SEWAGE minor) OTHER: _____

DEPOSITS/STAINS: NONE (SEDIMENTS) OILY OTHER: AND LEAVES 3-4" IN 30" 3-4" IN 15"

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 5-A **Date:** 5/30/14 **Time:** 1955

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): RIP-RAP CHANNEL OUTFALL OF BASIN

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: FLOATABLES IN BASIN - TRAPPED

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON R. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 5-B **Date:** 5/30/14 **Time:** 1958

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): ROCK-LINED EMBANKMENT

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): 1.0
b. APPROXIMATE DEPTH OF WATER (feet): 0.1
c. APPROXIMATE FLOW VELOCITY (feet per second): 1.0
d. FLOW RATE (cubic feet per second) = a x b x c = 0.1

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE (PERIPHYTON - NORMAL) OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 6 **Date:** 5/30/14 **Time:** 1005

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): RIP-RAP CHANNEL FROM BASIN

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE OUTFALL OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: NONE OILY SHEEN (GARBAGE/SEWAGE) OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 8 **Date:** 5/30/14 **Time:** 1935

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): GRASS - LENGTH SWALE

STRUCTURE TYPE: (OPEN CHANNEL) MANHOLE OUTFALL OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP:	_____ °F / °C	CHLORINE (Total):	_____ mg/l
pH:	_____	COPPER:	_____ mg/l
PHENOL:	_____ mg/l	DETERGENTS:	_____ mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 9 **Date:** 5/30/14 **Time:** 1925

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 2x 28"x50" ELLIPTICAL

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: AGRICULTURAL

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): 2.5
b. APPROXIMATE DEPTH OF WATER (feet): 1.25
c. APPROXIMATE FLOW VELOCITY (feet per second): 2.0
d. FLOW RATE (cubic feet per second) = a x b x c = 1.25

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 10 **Date:** 5/30/14 **Time:** 1920

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 15" N-12 PLASTIC

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: AGRICULTURAL

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): STANDING WATER IN OUTLET SCOUR HOLE
b. APPROXIMATE DEPTH OF WATER (feet):
c. APPROXIMATE FLOW VELOCITY (feet per second):
d. FLOW RATE (cubic feet per second) = a x b x c =

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER:

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER:

DEPOSITS/STAINS: NONE (SEDIMENTS) OILY OTHER:

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER:

FIELD ANALYSIS:

WATER TEMP:	°F / °C	CHLORINE (Total):	mg/l
pH:		COPPER:	mg/l
PHENOL:	mg/l	DETERGENTS:	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: SEDIMENTS AT OUTLET ARE ACCUMULATING AND AREAS CLEAN-OUT STILL SUFFICIENT CAPACITY TO PASS FLOW

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 11-A **Date:** 5/30/14 **Time:** 1905

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 15" CMP

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: NONE (SEDIMENTS) IN CULVERT PIPE OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 11-13 **Date:** 5/30/14 **Time:** 1910

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 24" RCP

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER:

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): STANDING WATER IN CULVERT
b. APPROXIMATE DEPTH OF WATER (feet):
c. APPROXIMATE FLOW VELOCITY (feet per second):
d. FLOW RATE (cubic feet per second) = a x b x c =

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER:

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER:

DEPOSITS/STAINS: NONE (SEDIMENTS) OILY OTHER: ~1" IN CULVERT

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:
MINOR DISCOLORATION OF CONCRETE WITH A PROTRUDING, PUNCTURED

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: 12" SECTION IS NEW SEGMENTS, NEEDS MORTAR WORK

FIELD ANALYSIS:

WATER TEMP:	°F / °C	CHLORINE (Total):	mg/l
pH:		COPPER:	mg/l
PHENOL:	mg/l	DETERGENTS:	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: ALGAE AT INLET + OUTLET, LIKELY NORMAL AS RUNOFF NUTRIENTS

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 12 **Date:** 5/30/14 **Time:** 1900

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 18" N-12 PLASTIC

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): TO LOW TO MEASURE
b. APPROXIMATE DEPTH OF WATER (feet): - FROM WEIRING
c. APPROXIMATE FLOW VELOCITY (feet per second): - NORMAL
d. FLOW RATE (cubic feet per second) = a x b x c =

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: NONE (SEDIMENTS) OILY OTHER: _____

VEGETATION CONDITION: NONE NORMAL (EXCESSIVE GROWTH) INHIBITED GROWTH
- PHRAGMITES AT OUTLET

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE (BACTERIA/ALGAE) OTHER: _____
MINOR

FIELD ANALYSIS:

WATER TEMP:	_____ °F / °C	CHLORINE (Total):	_____ mg/l
pH:	_____	COPPER:	_____ mg/l
PHENOL:	_____ mg/l	DETERGENTS:	_____ mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: LIGHT MINOR AMBIENT INPUT FROM OPSLOPE FARM

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 13 **Date:** 5/30/14 **Time:** 1850

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 36" RCP W/ QUARRY BLOCK ENDWALLS

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a.	WIDTH OF WATER SURFACE (feet):	2.0
b.	APPROXIMATE DEPTH OF WATER (feet):	0.2
c.	APPROXIMATE FLOW VELOCITY (feet per second):	1.0
d.	FLOW RATE (cubic feet per second) = a x b x c =	0.4

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP:	_____ °F / °C	CHLORINE (Total):	_____ mg/l
pH:	_____	COPPER:	_____ mg/l
PHENOL:	_____ mg/l	DETERGENTS:	_____ mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: AQT TAXA PRESENT → CHIRONOMIDS & MAYFLY LARVAE

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 14-A **Date:** 5/30/14 **Time:** 1840

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JES

SITE DESCRIPTION:
LOCATION (Narrative Description): 15" N-12 CONVERT
ROCK-LINED CHANNEL FROM ALLWIN TWP. RD TO INLET

STRUCTURE TYPE: OPEN CHANNEL MANHOLE OUTFALL OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN
OTHER:

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): 1.25 NO FLOW IN ROCK-
b. APPROXIMATE DEPTH OF WATER (feet): 0.1 LINED CHANNEL
c. APPROXIMATE FLOW VELOCITY (feet per second): 1.0
d. FLOW RATE (cubic feet per second) = a x b x c = 0.125

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER:

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER:

DEPOSITS/STAINS: NONE (SEDIMENTS) OILY OTHER:
- MINOR, NORMAL

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER:

FIELD ANALYSIS:

WATER TEMP:	°F / °C	CHLORINE (Total):	mg/l
pH:		COPPER:	mg/l
PHENOL:	mg/l	DETERGENTS:	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: ROCK-LINED CHANNEL IN GOOD CONDITION – NO FLOW, MINOR AMOUNT SEDIMENTS, VEGETATED W/ GRASS/WEEDS, NO ILLICIT DISCHARGE OR EVIDENCE OF POLLUTION

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 14-B **Date:** 5/30/14 **Time:** 1535

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JS

SITE DESCRIPTION:
LOCATION (Narrative Description): 2× 30" RCP w/ CONCRETE HEADWALLS

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER:

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): 5.0
b. APPROXIMATE DEPTH OF WATER (feet): 0.33
c. APPROXIMATE FLOW VELOCITY (feet per second): 2.0
d. FLOW RATE (cubic feet per second) = a x b x c = 3.3

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: SLIGHT BROWN - HIGHER FLOWS (NORMAL)

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER:

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER:

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER:

FIELD ANALYSIS:

WATER TEMP:	°F / °C	CHLORINE (Total):	mg/l
pH:		COPPER:	mg/l
PHENOL:	mg/l	DETERGENTS:	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: LOT TAXA PRESENT → CHIRONOMIDS & MAYFLY LARVAE
NO RUNOFF FROM ALONG THE TOWNSHIP ROAD

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 15 **Date:** 5/30/14 **Time:** 1820

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JAS

SITE DESCRIPTION:
LOCATION (Narrative Description): 2 x 9'x6' BOX CULVERTS AND ROCK-LINED CHANNEL AND 6" D.I. PIPE (NO FLOW)

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER:

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER:

FLOW ESTIMATION:
WAS FLOW OBSERVED? (NO) YES IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): STREAM 7.0
b. APPROXIMATE DEPTH OF WATER (feet): 0.33
c. APPROXIMATE FLOW VELOCITY (feet per second): 0.66
d. FLOW RATE (cubic feet per second) = a x b x c = 1.525

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number:)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER:

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER:

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER:

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER:

VEGETATION CONDITION: (NONE) (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER:

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER:

FIELD ANALYSIS:

WATER TEMP:	°F / °C	CHLORINE (Total):	mg/l
pH:		COPPER:	mg/l
PHENOL:	mg/l	DETERGENTS:	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: D.I. PIPE OUTLET AND ROCK-LINED CHANNEL HAVE EROSION ALONG STREAM BUT ARE STILL FAIRLY STABLE - ONLY ROCK HAS GROWED TO THIS POINT, 55 GALLON DRUMS ARE FULL OF CONCRETE - USED FOR ARMORING IN PAST.

DATA SHEET FILLED OUT BY: (signature): DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form

OUTFALL #: 16 **Date:** 5/30/14 **Time:** 1310

TIME SINCE LAST RAIN: ≥72 hours (<72 hours)
QUANTITY OF LAST RAIN: ≥0.1 inches (<0.1 inches)
INSPECTION TEAM: JSE

SITE DESCRIPTION:
LOCATION (Narrative Description): 18" RCP

STRUCTURE TYPE: OPEN CHANNEL MANHOLE (OUTFALL) OTHER: _____

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL (RESIDENTIAL) UNKNOWN
OTHER: _____

FLOW ESTIMATION:
WAS FLOW OBSERVED? NO (YES) IF YES, PLEASE ANSWER a. - d. BELOW.

a. WIDTH OF WATER SURFACE (feet): 0.33
b. APPROXIMATE DEPTH OF WATER (feet): 0.1
c. APPROXIMATE FLOW VELOCITY (feet per second): 1.0
d. FLOW RATE (cubic feet per second) = a x b x c = 0.033

VISUAL OBSERVATIONS:
WAS A PHOTO TAKEN? NO (YES) (Roll and Photo Number: _____)

ODOR: (NONE) MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: (CLEAR) RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: (CLEAR) CLOUDY OPAQUE

FLOATABLES: (NONE) OILY SHEEN GARBAGE/SEWAGE OTHER: LEAVES (MINIMAL)

DEPOSITS/STAINS: (NONE) SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE (NORMAL) EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: (NORMAL) CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C		CHLORINE (Total): _____	mg/l
pH: _____		COPPER: _____	mg/l
PHENOL: _____	mg/l	DETERGENTS: _____	mg/l

WAS A LABORATORY SAMPLE COLLECTED? (NO) YES
(if yes attach copy of chain-of-custody record)

COMMENTS: _____

DATA SHEET FILLED OUT BY: (signature): _____ DATE: 5/30/14

(print name): JASON E. SMITH S. SCIENTIST
HANOVER ENGINEERING ASSOCIATES, INC.

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Allen Township – MS4 Illicit Discharge Screening Program

Photos taken by Hanover Engineering Associates, Inc.

Photo 1 – Outfall 1-A – 15-inch reinforced concrete pipe and 15-inch N-12 plastic pipe to Catasauqua Creek.

Photo 2 – Outfall 1-B – Grass-lined swale through planting restoration area to Catasauqua Creek.

Photo 3 – Outfall 2 – Culvert outfall to Catasauqua Creek.

Photo 4 – Outfall 3-A – Grass-lined swale leading to Catasauqua Creek.

Photo 5 – Outfall 3-B – Grassed swales leading to Outfall 3 inlet from the recently developed Wayne Grube Park.

Photo 6 – Outfall 4 – 30-inch N-12 plastic culvert with concrete endwall and rip-rap outlet protection.

Photo 7 – Outfall 4 – 15-inch N-12 plastic culvert with rip-rap outlet protection.

Photo 8 – Outfall 5-A – Rock-lined channel outlet from stormwater basin to Dry Run.

Photo 9 – Outfall 5-B – Seepage from basin floor into rock-lined channel leading to Dry Run.

Photo 10 – Outfall 6 – Rock-lined channel to Dry Run from corrugated outlet pipe from stormwater basin.

Photo 11 – Outfall 6 – Corrugated outlet pipe from stormwater detention basin.

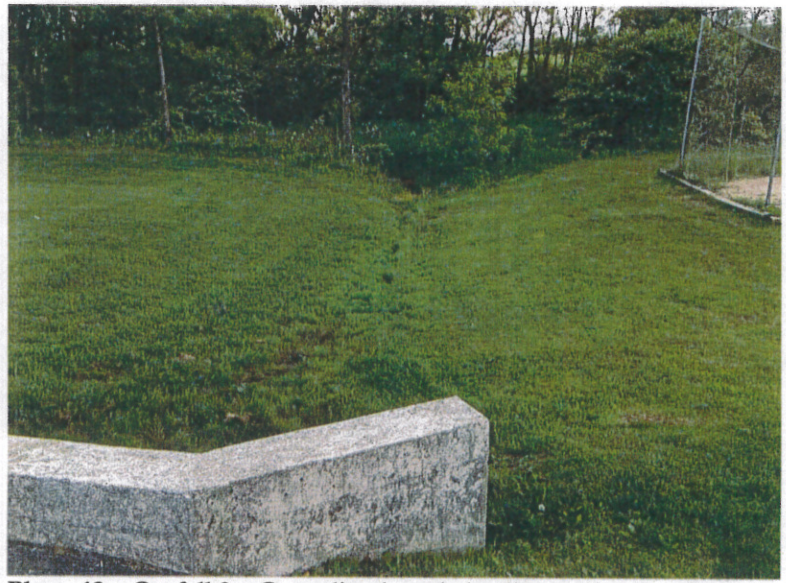

Photo 12 – Outfall 8 – Grass-lined swale leading to Dry Run from Township park.

Photo 13 – Outfall 9 – 2x28-inchx50-inch reinforced concrete culvert pipes leading to Dry Run.

Photo 14 – Outfall 10 – 15-inch N-12 plastic pipe leading to headwater wetlands to Dry Run.

Photo 15 – Outfall 11-A – 15-inch corrugated metal pipe leading to headwaters of Dry Run.

Photo 16 – Outfall 11-B – 24-inch reinforced concrete pipe leading to headwaters of Dry Run.

Photo 17 – Outfall 12 – 18-inch N-12 plastic pipe leading to headwater wetlands of Dry Run.

Photo 18 – Outfall 13 – 30-inch reinforced concrete pipe with quarry block endwall to an unnamed tributary to Hokendauqua Creek.

Photo 19 – Outfall 14-A – 15-inch N-12 plastic pipe with concrete endwall along an unnamed tributary to Hokendauqua Creek.

Photo 20 – Outfall 14-B –2x30-inch reinforced concrete pipe with concrete endwalls along an unnamed tributary to Hokendauqua Creek.

Photo 21 – Outfall 15 – 2x72-inchx108-inch box culvert along an unnamed tributary to Hokendauqua Creek.

Photo 22 – Outfall 16 – 18-inch reinforced concrete pipe to Hokendauqua Creek.