

Forsyth Annual Facility Inspection Report

April 1, 2019 – March 31, 2020



Prepared by: Chastain & Associates LLC
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Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control ANNUAL FACILITY INSPECTION REPORT

for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report.

Report Period: From March, 2019 To March, 2020

Permit No. ILR40 0193

MS4 OPERATOR INFORMATION: (As it appears on the current permit)

Name: Village of Forsyth Mailing Address 1: 301 South Route 51

Mailing Address 2: _____ County: Macon

City: Forsyth State: IL Zip: 62535 Telephone: 217-877-9445

Contact Person: David Strohl Email Address: dstrohl@forsythvillage.us
(Person responsible for Annual Report)

Name(s) of governmental entity(ies) in which MS4 is located: (As it appears on the current permit)

Macon County

THE FOLLOWING ITEMS MUST BE ADDRESSED.

A. Changes to best management practices (check appropriate BMP change(s) and attach information regarding change(s) to BMP and measurable goals.)

- | | | | |
|--|--------------------------|---|--------------------------|
| 1. Public Education and Outreach | <input type="checkbox"/> | 4. Construction Site Runoff Control | <input type="checkbox"/> |
| 2. Public Participation/Involvement | <input type="checkbox"/> | 5. Post-Construction Runoff Control | <input type="checkbox"/> |
| 3. Illicit Discharge Detection & Elimination | <input type="checkbox"/> | 6. Pollution Prevention/Good Housekeeping | <input type="checkbox"/> |

B. Attach the status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.

C. Attach results of information collected and analyzed, including monitoring data, if any during the reporting period.

D. Attach a summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule.)

E. Attach notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

F. Attach a list of construction projects that your entity has paid for during the reporting period.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

David A. Strohl

Owner Signature:

David Strohl

Printed Name:

06/04/20

Date:

Village Administrator

Title:

EMAIL COMPLETED FORM TO: epa.ms4annualinsp@illinois.gov

or Mail to: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION #19
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

VILLAGE OF FORSYTH

April 1, 2019 to March 31, 2020 Annual Facilities Inspection Report (Year 6)

A. CHANGES TO BMP'S

- 1. No changes to BMPs were proposed during the Reporting Period.
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B. COMPLIANCE WITH PERMIT CONDITIONS

C. RESULTS OF INFORMATION COLLECTED AND ANALYZED

D. ACTIVITIES FOR NEXT REPORTING CYCLE (APRIL 2020 TO MARCH 2021)

E. ANNUAL EVALUATION STATEMENT

PUBLIC EDUCATION AND OUTREACH

1. BMP A.1 – Distributed Paper Material

B. Compliance with Permit Conditions	The Village, as a part of the Macon County MS4 communities, distributed flyers at the Village Hall. See Exhibits A through C for the flyers available.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue to distribute fliers at Village Hall and distribute to residents at community events.

2. BMP A.2 – Speaking Engagement

B. Compliance with Permit Conditions	The Village, as a part of the Macon County MS4 communities, hosted a MS4 Workshop with the Champaign MS4 group on July 12, 2019 at the I-Hotel in Champaign on the University of Illinois Campus. The Keynote speakers were Holly Hirschert, IEPA; Professor Kalita and Professor Bhattarai, University of Illinois; John Warren, HANES; Eliana Brown and Lisa Merrifield. Illinois Extension; Heidi Leuszler, Parkland College. The event was held at the local college campus because they felt this location addressed the environmental justice requirements for the new permit. A copy of the agenda is available in Exhibit D. The SWCD staff present educational programs on urban erosion and water quality throughout the year. The effects of urban erosion were demonstrated at the Festival of Spring on April 27, 2019. Each year the Macon County SWCD participates in Macon County Agucation, sponsored by Farm Bureau and held at Richland Community College. At this event there are multiple conservation topics discussed.
C. Information Collected and Analyzed	The MS4 workshop had 86 attendees. The Festival of Spring had approximately 325 attendees. Macon County Agucation had approximately 600 students from Macon County.
D. Activities for Next Reporting Cycle	Speak at either one educational workshop or Village Board Meeting to inform public of construction site storm water management efforts. Continue support of Macon County SWCD public engagement.

3. BMP A.4 – Community Event

B. Compliance with Permit Conditions	<p>The Village, as a part of the Macon County MS4 communities, continued distribution of the flyer at the Village Hall and hosted a MS4 workshop with the Champaign MS4 group on July 12, 2019 at the I-Hotel in Champaign on the University of Illinois Campus. The event was advertised through fliers, websites, and Facebook. See Exhibit D for the agenda.</p> <p>The SWCD staff present educational programs on urban erosion and water quality throughout the year. The effects of urban erosion were demonstrated at the Festival of Spring on April 27, 2019. Each year the Macon County SWCD participates in Macon County Agucation, sponsored by Farm Bureau and held at Richland Community College. At this event there are multiple conservation topics discussed.</p>
C. Information Collected and Analyzed	The MS4 workshop had 86 attendees. The Festival of Spring had approximately 325 attendees. Macon County Agucation had approximately 600 students from Macon County.
D. Activities for Next Reporting Cycle	Continue to distribute fliers at Village Hall and distribute to residents at community events. Hold an annual public meeting in conjunction with the Macon County MS4 working group.

4. BMP A.6 – Other Public Education

B. Compliance with Permit Conditions	The Village, as part of the Macon County MS4 communities and the MCSWCD, maintained the website for storm water issues (www.maconcleanwater.com). The Village also published information about storm sewer projects and awareness in the Village Vision.
C. Information Collected and Analyzed	Visits to the website totaled 11,203 for the reporting year. See Exhibit E for the report. The Village Vision is distributed to all water customers of the Village.
D. Activities for Next Reporting Cycle	Continue to update and maintain the current MS4 Community website and work to increase website visits by 10% in conjunction with the Macon County MS4 Community.

Annual Evaluation Statement: Public Education and Outreach (Section A)

For the next year, the Village will assist the Macon County SWCD with the annual workshop and training session in collaboration with the Champaign MS4 Organization to expand the audience for education training events. In addition, MS4 brochures will remain available at the SWCD office of the participating Macon County MS4 working group including at the Forsyth Village Hall. This gives citizens across the county opportunities to pick up the educational materials. Over the year, we will look for other areas to make the brochures available.

PUBLIC PARTICIPATION / INVOLVEMENT

1. BMP B.3 – Stakeholder Meeting

B. Compliance with Permit Conditions	The Village attended a local NPDES coordination meeting with other members of the Macon County MS4 community.
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C. Information Collected and Analyzed	Meetings attended: <ul style="list-style-type: none"> • July 12, 2019 (MS4 Workshop) • August 20, 2020 • October 15, 2019 • January 28, 2020
D. Activities for Next Reporting Cycle	Continue to attend local NPDES coordination meetings.

2. BMP B.4 – Public Hearing

B. Compliance with Permit Conditions	No ordinance changes were implemented during the reporting period and therefore no public hearings were required.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue to review the Storm Water Ordinance and present changes to Village Board for approval. A minor update to the Village storm water ordinance is scheduled for April 2020 in order to match the other MS4 community ordinances.

3. BMP B.6 – Program Involvement

B. Compliance with Permit Conditions	The Village attended local NPDES coordination meetings with other members of the Macon County MS4 community. The Village offers recycling services to its residents. In addition, recycling containers are available at Village events.
C. Information Collected and Analyzed	Meetings attended: <ul style="list-style-type: none"> • July 12, 2019 (MS4 Workshop) • August 20, 2020 • October 15, 2019 • January 28, 2020
D. Activities for Next Reporting Cycle	Continue to attend local NPDES coordination meetings.

Annual Evaluation Statement: Public Participation / Involvement (Section B)

In conjunction with the Macon County MS4 communities, we hold training seminars for local contractors, engineers and public works employees. We believe we have met the requirements of this section with our meetings, recycling program and website maintenance.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

1. BMP C.1 – Sewer Map Preparation

B. Compliance with Permit Conditions	The Village maintains a map of Village storm sewers and outfalls. The map is continually updated to reflect new development within the Village limits.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue revisions to the storm sewer map as necessary.

2. BMP C.6 – Program Evaluation and Assessment

B. Compliance with Permit Conditions	The Village includes language in the Storm Water Ordinance that prohibits non-storm water discharges to the storm sewer system. A screening, inspection and follow-up program to identify non-storm water discharges and illicit discharges. 10%-15% of mapped outfalls were selected for dry weather screening, based on potential for illicit discharges. These outfalls are inspected during dry weather up to 3 times per year. Inspection reports are maintained and encountered discharges are investigated and eliminated.
C. Information Collected and Analyzed	<p>Outfall structures monitored at the following locations and dates:</p> <ol style="list-style-type: none"> 1. Timber & McDonald –6/3/19, 10/9/19. 2. Market Street – 6/3/19, 10/9/19. 3. Main Park – 6/3/19, 10/9/19. <p>See Exhibit G for reports.</p> <p>Steven’s Creek was monitored at the following locations and dates:</p> <ol style="list-style-type: none"> 1. County #20 & Hundley – influent – 6/3/19, 10/9/19. 2. Woodland & Lantern – effluent – 6/3/19, 10/9/19. <p>See Exhibit F for reports.</p>
D. Activities for Next Reporting Cycle	Stevens Creek will continue to be monitored using the Illinois River Watch site identification form. Outfalls will continue to be monitored up to 3 times per a year.

3. BMP C.7 – Visual Dry Weather Screening

B. Compliance with Permit Conditions	The Village includes language in the Storm Water Ordinance that prohibits non-storm water discharges to the storm sewer system. A screening, inspection and follow-up program to identify non-storm water discharges and illicit discharges. 10%-15% of mapped outfalls were selected for dry weather screening, based on potential for illicit discharges. These outfalls are inspected during dry weather up to 3 times per year. Inspection reports are maintained and encountered discharges are investigated and eliminated.
C. Information Collected and Analyzed	<p>Outfall structures monitored at the following locations and dates:</p> <ol style="list-style-type: none"> 1. Timber & McDonald –6/3/19, 10/9/19. 2. Market Street – 6/3/19, 10/9/19. 3. Main Park – 6/3/19, 10/9/19. <p>See Exhibit G for reports.</p> <p>Steven’s Creek was monitored at the following locations and dates:</p> <ol style="list-style-type: none"> 1. County #20 & Hundley – influent – 6/3/19, 10/9/19. 2. Woodland & Lantern – effluent – 6/3/19, 10/9/19. <p>See Exhibit F for reports.</p>

D. Activities for Next Reporting Cycle	Stevens Creek will continue to be monitored using the Illinois River Watch site identification form. Outfalls will continue to be monitored up to 3 times per a year.
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Annual Evaluation Statement: Illicit Discharge Detection and Elimination (Section C)

To evaluate the effectiveness of our illicit detection efforts, the following will be documented:

Location #1 Intersection of Hundley and County Highway 20

Date	Worst Weather in past 48 hours	Temperature Air	Water Appearance	Turbidity
6-3-2019	Clear/Sunny	79 °F	Clear	Clear/Slight
10-9-2019	Clear/Sunny	55 °F	Clear	Clear/Slight

Location #2 Woodland

Date	Worst Weather in past 48 hours	Temperature Air	Water Appearance	Turbidity
6-3-2019	Clear/Sunny	80 °F	Clear	Slight
10-9-2019	Clear/Sunny	56 °F	Clear	Clear/Slight

Storm water infrastructure will continue to be mapped. The Village will inspect Stevens Creek summer 2020 and compare the results to past years.

CONSTRUCTION SITE RUNOFF CONTROL

1. BMP D.1 – Regulatory Control Program

B. Compliance with Permit Conditions	The Village contracts with the MCSWCD to provide reviews of the erosion control plans and SWPPPs within the Village limits as well as site inspections. Site plans that lack proper erosion control measures are returned to the developer for revision and resubmittal.
C. Information Collected and Analyzed	11 permits were issued through MCSWCD during the reporting year.
D. Activities for Next Reporting Cycle	Continue site plan reviews by the Village for compliance with local erosion and sediment control rules. The Village will evaluate the need for Stormwater Ordinance Revisions and recommend revisions.

2. BMP D.2 – Erosion and Sediment Control BMPs

B. Compliance with Permit Conditions	The Village provides commercial site plan and subdivision plan reviews using a consultant for compliance with local erosion and sediment control requirements.
C. Information Collected and Analyzed	Plans Reviewed: No site requiring review occurred during the report year.
D. Activities for Next Reporting Cycle	Continue site plan reviews by the Village for compliance with local erosion and sediment control rules.

3. BMP D.4 – Site Plan Review Procedures

B. Compliance with Permit Conditions	The Village provides commercial site plan and subdivision plan reviews using a consultant for compliance with local erosion and sediment control requirements.
C. Information Collected and Analyzed	Plans Reviewed: No site requiring review occurred during the report year.
D. Activities for Next Reporting Cycle	Continue site plan reviews by the Village for compliance with local erosion and sediment control rules.

4. BMP D.5 – Public Information Handling Procedures

B. Compliance with Permit Conditions	The phone number for the Village Hall is available on the website for the general public to report storm water issues. Complaints were forwarded to Public Works, investigated and handled appropriately.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue to track and report complaints.

5. BMP D.6 – Site Inspection/Enforcement Procedures

B. Compliance with Permit Conditions	The MCSWCD provides onsite inspections during active construction. Village staff was responsible for follow-up enforcement of the storm water requirements.
C. Information Collected and Analyzed	Eleven Land Disturbance permits were issued, and several sites are still open. See Exhibit E for report from MCSWCD.
D. Activities for Next Reporting Cycle	Continue to have MCSWCD conduct initial site inspections for developments subject to ILR10 and perform follow-ups as necessary.

Annual Evaluation Statement: Construction Site Runoff Control (Section D)

To evaluate the effectiveness of our Construction Site controls, the following will be documented in the next reporting cycle:

- Which BMPs are regularly installed correctly and incorrectly. This can guide future trainings. Inlet controls, stabilized construction entrances, and utilizing silt fence above its capabilities is still an issue on many of our sites.
- Evaluate numbers of follow up site inspections. Our goal is to have an overall downward trend.

POST-CONSTRUCTION RUNOFF CONTROL

1. BMP E.2 – Regulatory Control Program

B. Compliance with Permit Conditions	The Village’s Storm Water Management ordinance was enforced pertaining to the design, installation and maintenance of post-construction water quality BMPs in accordance with the most current Illinois Urban Manual Standards.
C. Information Collected and Analyzed	N/A

D. Activities for Next Reporting Cycle	Continue to enforce storm water management technical guidelines as set forth in the Illinois Urban Manual. The Village will evaluate the need for Stormwater Ordinance Revisions and recommend revisions.
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2. BMP E.4 – Pre-Construction Review of BMP Designs

B. Compliance with Permit Conditions	The Village provides commercial site plan and subdivision plan reviews using a consultant for compliance with local erosion and sediment control requirements.
C. Information Collected and Analyzed	Plans Reviewed: No site requiring review occurred during the report year.
D. Activities for Next Reporting Cycle	Continue site plan reviews by the Village for compliance with local erosion and sediment control rules and continue to enforce storm water regulations.

3. BMP E.5 – Site Inspections during Construction

B. Compliance with Permit Conditions	The MCSWCD provides onsite inspections during active construction. Village staff was responsible for follow-up enforcement of the storm water requirements.
C. Information Collected and Analyzed	11 Land Disturbance permits were issued, and several sites are still open. See Exhibit E for report from MCSWCD.
D. Activities for Next Reporting Cycle	Continue site inspections by MCSWCD of reported construction sites.

4. BMP E.6 – Post-Construction Inspections

B. Compliance with Permit Conditions	The Macon County Soil and Water Conservation District inspects detention basins. Outfall structures were monitored at the following locations and dates: 1. Timber & McDonald – 6/3/19, 10/9/19. 2. Market Street – 6/3/19, 10/9/19. 3. Main Park – 6/3/19, 10/9/19. See Exhibit G for reports.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue evaluation of existing operation and maintenance policies and amend as necessary.

Annual Evaluation Statement: Post-Construction Runoff Control (Section E)

To evaluate the effectiveness of our Post Construction controls, the following will be documented:

The SWCD partners with the Village of Forsyth, Village of Mt. Zion, and the City of Decatur to inspect 25% of each municipality’s detention basins per year. The most common maintenance issues are clearing woody vegetation from the outfall and light scour erosion at the outlets. Knowing these items are common may direct future training/education.

POLLUTION PREVENTION / GOOD HOUSEKEEPING

1. BMP F.1 – Employee Training Program

B. Compliance with Permit Conditions	Employees attended the MS4 workshop on 7/12/19.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue employee training program.

2. BMP F.3 – Municipal Operations Storm Water Control

B. Compliance with Permit Conditions	The Village continued the practice of washing their vehicles in closed facilities that drain to sanitary sewers.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue to enforce the use of the designated wash facilities.

3. BMP F.6 – Other Municipal Operations Control

B. Compliance with Permit Conditions	The Village continued to use salt application devices to regulate salt applied to roads for snow removal and stores its roadway deicing salt in an enclosed facility which reduces salt loss from storm water runoff. The Village continually maintains stormwater infrastructure by picking up litter every Friday. The Village also conducted a Village wide clean up April 2019. The Village has attended Illinois department of agriculture herbicide training. Village staff also inspects Steven’s Creek after large rain events. Catch basins and storm sewer inlets were cleaned 5/2/19, 6/3/19, 7/17/19, 9/6/19, 10/30/19, 1/9/20. Street sweepings were performed in May 2019.
C. Information Collected and Analyzed	N/A
D. Activities for Next Reporting Cycle	Continue inlet cleaning, salt storage and application reduction measures, street sweepings, and appropriate use of fertilizers.

Annual Evaluation Statement: Pollution Prevention / Good Housekeeping (Section F)

To evaluate the effectiveness of our Good Housekeeping controls, the following will be documented:

Employee training: We plan to leave room at every MS4 Work Group Meeting for sharing of new educational resources, information. An effort will be made to share educational items across municipalities.

The Village will encourage employees to notify their supervisor of any housekeeping items to be addressed.

E. PERMIT OBLIGATIONS PERFORMED BY ANOTHER ENTITY

The Village of Forsyth along with the Village of Mt. Zion and the City of Decatur has contracted with the Macon County Soil and Water Conservation District (SWCD) for the collection of permit fees, inspection and enforcement of the Land Disturbance Permit process. Each of the communities has adopted a Land Disturbance Permit Ordinance with similar wording and requirements. The Macon County Soil and Water Conservation District is responsible for onsite inspections and each community is responsible for enforcement of erosion and sedimentation requirements of the NPDES Permit.

F. CONSTRUCTION PROJECTS DURING REPORTING PERIOD

One Village of Forsyth construction project disturbed one or more acres for the reporting year. A new storm sewer was installed along Phillip Circle from the park pond to CH 20. A separate ILR10 permit was opened for this project.

G. Monitoring Program

The Village completed a visual observation at two locations of Stevens Creek, one upstream where the creek enters the Village and one where the creek exits the Village. Outfall monitoring reports are attached as Exhibit F.

Best Management Practices for Individual Lot Construction

Correctly installed and maintained BMP's can help ensure that sediment generated from construction activity remains on-site. The following BMP's are commonly used for individual lot construction:

Construction Entrance

- Use to prevent tracking soil onto road
- Use 2"-3" stone, 6" deep
- Install during clearing phase and maintain throughout construction
- Install geotextile fabric under entrance



Rock Outlet Protection

- Use to dissipate energy from concentrated flows
- Helps prevent eroded channels downstream
- Use oversized stone appropriate for design velocities
- Install geotextile fabric under riprap



Sediment Barriers

- Use to trap sediment and intercept runoff
- Install prior to clearing phase
- Ensure silt fence is installed correctly by entrenching a portion of it in the ground and place stakes on the downhill side
- Maintain until vegetation is established; keep it upright and remove collected sediment
- Do not use on steep slopes or concentrated flow areas



Sediment Cleanup

- At the end of each work day sweep or scrape soil tracked onto roads
- After storm events inspect for off-site sediment movement and repair damage to barriers
- Remove sediment that penetrated barriers and remove build-up



Inlet Protection

- Protect all stormwater inlets- they are a direct conveyance to streams and rivers
- Install prior to clearing phase
- Filter fabric and temporary seeding are standard for inlet protection

Stockpile Placement and Protection

- Build stockpiles away from critical areas such as streams, drainage ways, and stormwater inlets
- Use temporary seed, such as rye or winter wheat, to stabilize pile until removed or re-graded



Re-vegetation/ Surface Protection

- Try to preserve existing trees, shrubs, and other vegetation when possible
- Use to stabilize exposed surfaces from erosion
- Use seed or sod to cover exposed soils after final grade is completed
- Seed critical areas such as drainage swales, right-to-way areas, areas near curb inlets, buffer areas along streams and wetlands
- Mulching can be used when temporary seeding is not practical and can be done in any weather situation



“All the water that will ever be is right now” **Exhibit A**

Why do we care about Erosion from Construction Sites?

Sediment is the number one pollutant that flows from construction sites. It degrades water quality and can harm our water supply.

Macon County, the City of Decatur, the Village of Forsyth, and the Village of Mt. Zion are working together to do their part in protecting and improving water quality.

This brochure is designed to be a quick reference to some commonly used Best Management Practices to prevent erosion.

Failure to install BMP's could bring about costly fines, stop work orders, and expensive clean ups.



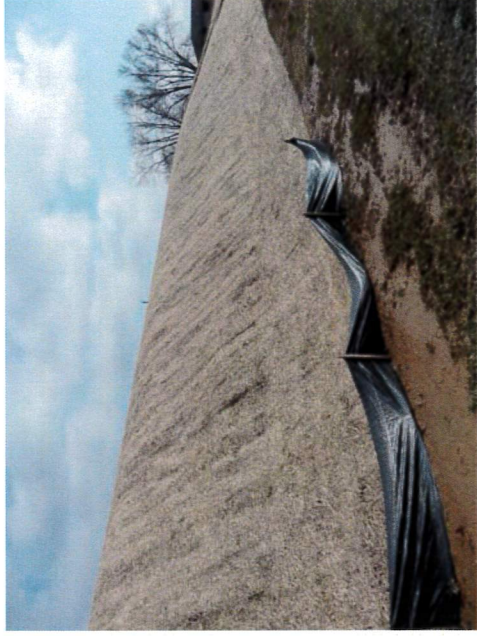
Who Should I Contact?

	City of Decatur Mary Cave 217-424-2724
	Macon County Jennifer Hoffman 217-425-6583
	Village of Forsyth Larry Coloni 217-433-9597
	Village of Mt. Zion Grant Corum 217-864-4811

For Inspections:
In Macon County: 217-425-6583
Decatur, Forsyth, & Mt. Zion:
Macon County Soil and Water
Conservation District
217-877-5670 Ext 3

EROSION & SEDIMENT CONTROL TIPS FOR INDIVIDUAL LOT CONSTRUCTION

www.maconcleanwater.org



A collaborative effort of the Macon County MS4 Communities

What is Green Infrastructure?

Green Infrastructure is a network for solving urban and climatic challenges by building with nature. The main components are stormwater management, climate adaptation, less stress heat, better air quality, and clean water and healthy soils. It also serves to provide an ecological framework for social, economical, and environmental health of the surroundings.

Rain Gardens

Rain Gardens are landscaped areas built in a depression that are designed to capture and filter stormwater runoff from a roof or other impervious surface. The plants and soil of the rain garden provide an easy, natural way of reducing the amount of stormwater runoff from individual residential properties.

Pervious Pavement

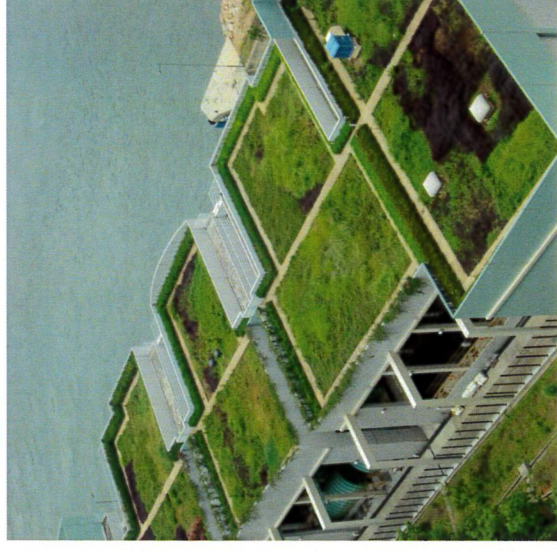
Pervious pavement may include paving blocks, grid pavers, or pervious concrete installed according to manufacturer's specifications. Pervious pavement can be used for driveways and patios with a stone reservoir underneath. The reservoir temporarily stores surface runoff before infiltrating it into the soil below the stone reservoir. Runoff is infiltrated directly into the soil and improves water quality.



Green Roofs

A green roof is a roof that is partially or completely covered with vegetation and waterproofing membrane. A green roof's purpose is to absorb rainwater, provide insulation, create habitat for wildlife, and help lower urban air temperatures.

Exhibit B



Bioswales

Bioswales are storm water runoff conveyance systems that provide an alternative to storm sewers. They can absorb low flows or carry runoff from heavy rains to storm sewer inlets or directly to surface waters. Bioswales improve water quality by infiltrating the first flush of storm water runoff and filtering the large storm flows they convey. The majority of annual precipitation comes from frequent, small rain events. Much of the value of bioswales comes from infiltrating and filtering nearly all of this water.



Who should I contact if I want to know more about these practices?

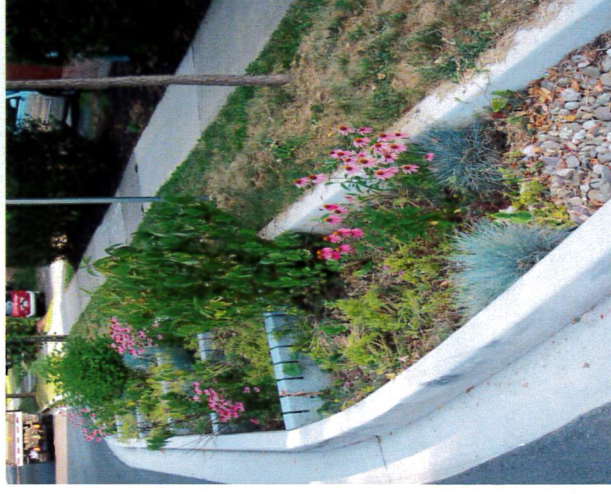
City of Decatur
217-424-2724

Macon County
217-425-6583

Village of Forsyth
217-433-9597

Village of Mt. Zion
217-864-4811

Green Infrastructure



*Prepared by: Macon County
Municipal Separate Storm
Sewer System (MS4)
Communities*

Basics of Water Pollution

Point Source Water Pollution

This is pollution that flows from pipes or comes from specific points such as an industrial site. This type of pollution is regulated by State laws.

Non-Point Source Water Pollution

This type of pollution results from land runoff, precipitation, atmospheric deposition, drainage and seepage. This pollutant is caused by rainfall and snowmelt moving over the ground. This activity collects pollutants and chemicals which are deposited into various creeks, lakes and water sources. This type of pollutant is not closely regulated but can be prevented by education.

Be The Solution to Storm Water Pollution

How Can You Make A Difference?

Household Chemicals

Problem: Many people do not know where to dispose of chemicals from the home.

Solution: Take all household chemicals to collection sites on specified days. Please see Macon County Environmental Agency website for additional information and the specific collection dates. www.macongreen.com

Yard and Garden

Problem: Many homeowners over fertilize their yard because they enjoy the look of a green yard.

Solution: Do not over fertilize your yard. Always follow the manufacturer's recommendations.

Do not apply when rain is in the forecast. Not only is it a waste of time and money, but the chemicals easily wash away in the runoff after a storm.

Do choose natural fertilizers such as compost or grass clippings.

Pet Waste

Problem: Many people allow their pet's waste to wash down the storm drain.

Solution: Pick up pet's waste when going for walks.

Auto Maintenance

Problem: Many people are not careful when performing routine maintenance on their vehicles.

Solution: Do not dump motor oil or fluids down a storm drain.

Do not clean up fluid spills with water. Other alternatives for clean up is kitty litter, sawdust, or wood chips to soak up the spill.

Do take your vehicle to the car wash so the soap and dirt is properly disposed of.

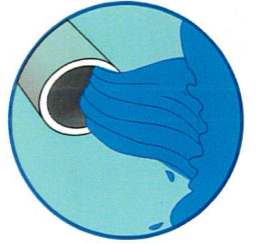
Do properly dispose of all motor oil and fluids properly. Many oil change shops will take used oil at no charge.

Exhibit C



Mission Statement for Municipal Separate Storm Sewer System

Our Municipal Separate Storm Sewer System (MS4) purpose is to protect, maintain, and enhance the environment of the jurisdictions and the public health, safety, and welfare of the citizens by controlling discharges of pollutants to the storm water system, by maintaining and improving the quality of the receiving waters into which the storm water outfalls flow, including without limitation lakes, rivers, streams, ponds, wetlands, and groundwater, and to enable compliance with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations for storm water discharges.



Web Sites for More Information:

www.maconcleanwater.com

Contact:

City of Decatur 424-2747

Macon County 424-1466

Village of Forsyth 877-9445

Village of Mt. Zion 864-4811



WHEN IT RAINS..... IT DRAINS

BE THE SOLUTION TO STORMWATER POLLUTION





Erosion Control & Green Infrastructure Conference Agenda

July 12, 2019 IHotel

8:00 am	Registration and Breakfast Reception
8:30 am to 8:45 am	Welcome and Opening Remarks (Christine Davis, IEPA)

Presenters

8:45 am to 9:30 am	Holly Hirschert, IEPA: Changes to the General NPDES Permit for Storm Water Discharges from Construction Site Activities (ILR10)
9:45 am to 10:45 am	Professor Kalita & Professor Bhattarai, University of Illinois: Erosion Control Research & Training Center – An Overview
10:45 am to 11:00 am	Break
11:00 am to 12:00	John Warren, HANES: Stabilization Even When The Weather Does Not Cooperate
12:00 pm to 1:00 pm	Lunch
1:00 pm to 1:45 pm	Eliana Brown & Lisa Merrifield, Illinois Extension: Green Stormwater Infrastructure: Practices, Economics and Resources
1:45 pm to 2:30 pm	Heidi Leuszler, Parkland College: The National Green Infrastructure Certification Program

Tours

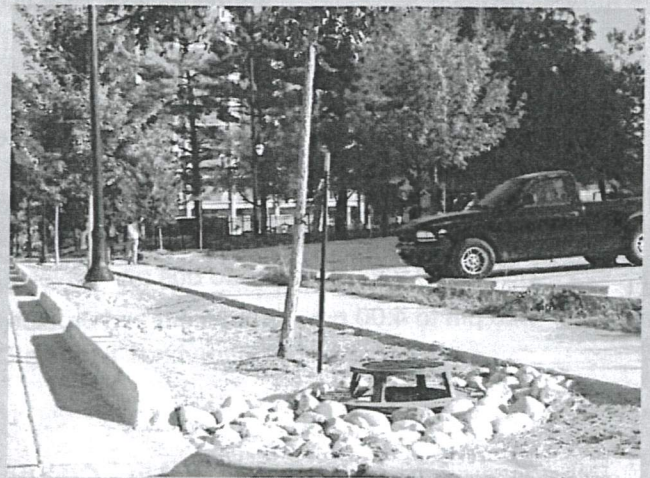
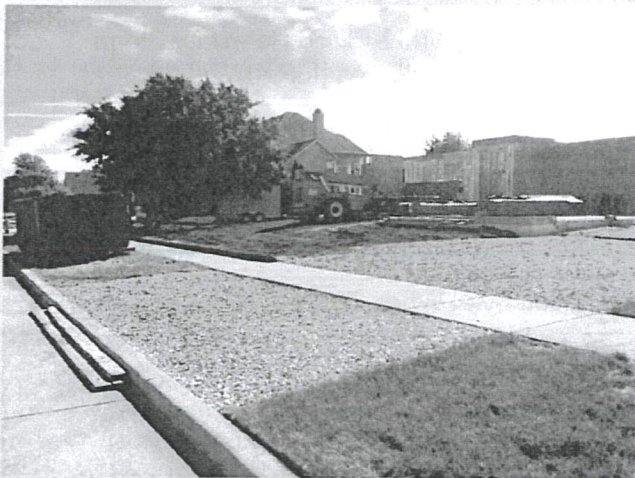
2:30 pm to 2:45 pm	Load bus and travel
3:00 pm to 4:00 pm	Sediment and erosion control demonstrations – Erosion Control Research & Training Center 3603 E. Race St. Urbana, IL

City of Champaign - City of Urbana - Champaign County
Champaign County Soil and Water Conservation
University of Illinois at Urbana-Champaign - Village of Savoy



2019 Erosion Control & Green Infrastructure Stormwater Conference

Friday, July 12, 2019, 8:00 a.m. to 4:00 p.m.
I Hotel and Conference Center



City of Champaign • City of Urbana • Champaign County
Champaign County Soil and Water Conservation
University of Illinois at Urbana-Champaign • Village of Savoy

Introduction

The Champaign County Stormwater Partnership (CCSP) extends a warm welcome to all in attendance for today's stormwater conference.

Today's conference is designed to engage the audience on how we can all work collectively to achieve the goals of the Clean Water Act. This event is designed to educate and demonstrate the existing products and technologies available to us, how to properly install best management practices before and during a project, that will improve cost, safety and compliance. We will also hear about the ongoing research on economic and social impacts that affects communities that install green infrastructure into their projects, and how the industry is creating a consistent practice of standards for the use, design, installation, operation and maintenance for green infrastructure.

We will end our conference with an exceptional tour of one of the only sites available that teaches, and performs tests for erosion and sediment control products, allowing the industry to understand proper installation and use.

Welcome/Opening Remarks

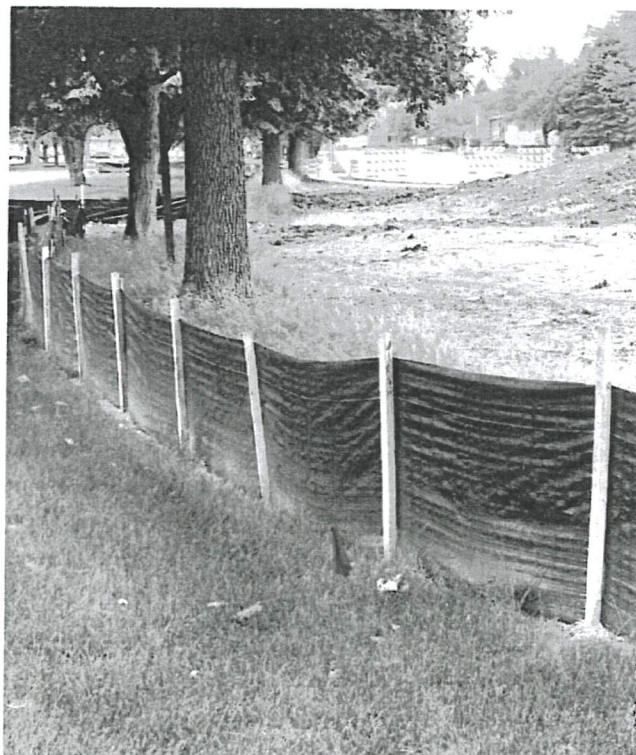
Christine Davis is the Watershed Management Section Manager in the Bureau of Water at Illinois EPA which includes the Planning Unit (also known as the Total Maximum Daily Load Unit), the Nonpoint Source (NPS) Unit and Illinois Nutrient Loss Reduction Strategy. Chris previously worked in the NPS Unit for 27 years, routinely assisting not-for-profit organizations and local governments to develop watershed-based plans and implement site-specific and watershed-wide nonpoint source pollution control programs and projects, including the Illinois Green Infrastructure Grant Program.

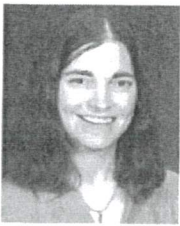


2019 Erosion Control & Green Infrastructure Stormwater Conference Agenda

July 12, 2019 | Hotel and Conference Center

- 8:00 Registration and Breakfast Reception
- 8:30 Opening Remarks "Next Door Knowledge" by Christine Davis
- 8:45 Changes to the General NPDES Permit for Storm Water Discharges from Construction Site Activities (ILR10) by Holly Hirschert
- 9:45 Overview of the Erosion Control Research & Training Center by Professor Prasanta Kalita, PhD and Assistant Professor Rabin Bhattari, PhD
- 10:45 Break
- 11:00 Stabilization, Even When the Weather Does Not Cooperate by John Warren
- 12:00 Complementary Lunch and Slideshow of Erosion Control and Green Infrastructure in our local watersheds
- 1:00 Illinois Extension: Green Stormwater Infrastructure Practices, Economics and Resources by Eliana Brown and Lisa Merrifield
- 1:45 The National Green Infrastructure Certification Program by Heidi Leuszler
- 2:30 Break
- 2:45 Load Bus for Tour: University of Illinois Erosion Control Research & Training Center, located at 3603 E Race St. Urbana, IL 61801
- 4:00 Return to I Hotel and Conference Center, end of conference





Holly Hirschert is an Environmental Protection Engineer working as an inspector for the Illinois Environmental Protection Agency in the Champaign Regional Office. Ms. Hirschert is responsible for inspecting construction sites and industrial facilities that

are covered by the general stormwater permits. She audits permitted small municipal separate storm sewer systems (MS4s) and inspects industrial wastewater treatment plants that are covered by individual national pollutant discharge elimination system (NPDES) permits.



Prasanta Kalita, PhD is a professor of Soil and Water Resources Engineering, and the Presidential Fellow of the University of Illinois System. A Fellow of the American Society of Agricultural and Biological Engineers (ASABE) and Indian Society for Agricultural

Engineering (ISAE), Dr. Kalita's areas of research include water resources management and environmental sustainability, food security, and water quality.



Rabin Bhattarai, PhD is an assistant professor of Soil and Water Resources Engineering at the University of Illinois at Urbana-Champaign. His research group works on developing sustainable engineering solutions to improve water quality and crop

production. His areas of research include climate-water-food nexus, non-point source pollution control, and water quality.



John Warren, CPESC is the Midwest Region Manager for HANES Geo Components the largest distributor of Geo Products in the world. He assists owners, engineers, architects and project managers in solving their erosion & sediment control issues on

jobsites across 7 states. He is a Certified Professional in Erosion & Sediment Control and a founding Board Member on the Great Rivers Chapter of the International Erosion Control Association.



Eliana Brown is a Water Quality Specialist with University of Illinois Extension and Illinois-Indiana Sea Grant. She works with communities, Master Gardener organizations, and others to educate members on stormwater pollution and best

management practices. She leads Extension's role in facilitating the Illinois Nutrient Loss Reduction Strategy.



Lisa Merrifield is the sustainable community specialist within University of Illinois Extension's Community and Economic Development Team. She works with University of Illinois

faculty, Extension specialists, Extension Educators and community leaders to

identify opportunities and approaches that help local governments and organizations address the challenges they face.



Heidi Leuszler is a Professor of Biology and Sustainability at Parkland College, Champaign, IL. While her primary duties include teaching environmental science classes, she also works collaboratively with numerous

entities in the community focused on sustainable agriculture and green infrastructure. Heidi has a certification from the National Green Infrastructure Certification Program and is also a national trainer for the program.



The CCSP is a collaboration of local government entities in Champaign County, Illinois consisting of Champaign County, City of Champaign, City of Urbana, University of Illinois at Urbana-Champaign, the Village of Savoy and the Champaign County Soil & Water Conservation District. We share common resources and efforts to develop a regional consistency in fulfilling Municipal Separate Storm Sewer System (MS4) permit requirements to improve the quality of stormwater that runs off of the land and into rivers, lakes, and streams.

Thank you for joining us today. Look for our next stormwater forum education conference in 2020, which will be hosted by Macon County Municipal Separate Storm Sewer System Group.

Special Thanks to CCSP partners for planning, MTD for transportation, and Macon County MS4 group for help with registration and coordination.



Champaign County Stormwater Partnership

Champaign County

John Hall, Director of Planning and Zoning
Amy Heffernan, Associate Planner

Champaign County Soil and Water Conservation District

Erin Bush, Resource Conservationist
Renee Weitekamp, Administrative Coordinator

City of Champaign

Eleanor W. Blackmon, P.E. Assistant City Engineer
Alex M. Nagy, P.E., Civil Engineer III
Beverly Maddock, Eng Tech II/Erosion Ctrl Insp
Leslie Heath Engineering Technician II

City of Urbana

Brad Bennett, P.E., Assistant City Engineer
Beth Reinke, Stormwater Engineering Tech
Justin Swinford, P.E., Civil Engineer II

University of Illinois at Urbana Champaign

David Wilcoxon, Associate Director Environmental
Compliance
Betsy Liggett, Coordinator, Special Program,
Environmental Compliance
Colleen Ruhter, P.E., Coordinator, Special Programs,
Environmental Compliance

Village of Savoy

Levi Kopmann, Assistant Village Manger–Public Works/
Engineer
Jesse Stephens, Assistant Director of Public Works





Macon County Soil & Water Conservation District
3342 North President Howard Brown Blvd.
Decatur, IL 62521
217-877-5670 x 3

Yearly Report for MS4's **April 1, 2019 – March 31, 2020**

The Macon County Soil and Water Conservation District employed Natalie Misner, Watershed Specialist and Manny Wei- Private Engineer, Watershed Technician to provide technical assistance to the MS4 Working Group and to conduct MS4 inspections. A record of applications and inspection reports are maintained at the Macon County SWCD office. The following summarizes the inspections.

City of Decatur: 21 permits (11 commercial, 10 residential) were taken out. Multiple sites are still open as March 31, 2020.

Village of Forsyth: 11 permits (10 residential, 1 commercial) were issued. Several sites still open.

Village of Mt. Zion: 14 permits (12 residential, 2 commercial) were taken out. Multiple sites are still open.

The total number of permits this year almost doubled. From 29 permits last year to 46 permits this year. Each site is inspected at least once with larger commercial sites being inspected multiple times throughout construction.

Education efforts: Stormwater presentation was presented at the Festival of Spring on April 27, 2019 with 325 attendees. Macon County Ms4 group worked with Champaign County to provide an MS4 Stormwater Workshop held on July 12, 2019 at the IHOTEL in Champaign. The focus was on ILR10 Permit updates and BMPs with 50 participants in attendance.

The Macon County MS4 working group also maintains a website, www.maconcleanwater.com. From April 1, 2019 to March 31, 20 the site had a total of 11,203 total views.

The SWCD staff present educational programs on urban erosion and water quality throughout the year. Each year the Macon County SWCD participates in Macon County Agucation, sponsored by Farm Bureau and held at Richland College, multiple conservation topics are discussed, over 600 students from Macon County participate each year. Throughout the year the Macon County SWCD staff has the opportunity to talk with and educate over 2500 individuals about conservation and stormwater/urban topics.



Outfall Monitoring Sheet

Site ID #: STEVENS CREEK
 Stream: 00420 + HUMBLE
 Date: 6-3-19

Name(s) of Inspector(s): LNN S.
 Start Time: 1:30 am pm
 End Time: 1:45 am pm

Present Weather <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rainy (Steady) <input type="checkbox"/> Stormy (Heavy)	Worst Weather in past 48 hours <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rain (Steady) <input type="checkbox"/> Storm (Heavy)	Temperature Air <u>79</u> °F °C Water _____ °F °C
Water Appearance <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Milky <input type="checkbox"/> Foamy <input type="checkbox"/> Dark Brown <input type="checkbox"/> Oily Sheen <input type="checkbox"/> Reddish <input type="checkbox"/> Green <input type="checkbox"/> Other _____	Water Odor <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage <input type="checkbox"/> Chlorine <input type="checkbox"/> Fishy <input type="checkbox"/> Rotten Eggs <input type="checkbox"/> Petroleum <input type="checkbox"/> Other _____	Turbidity <input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Medium <input type="checkbox"/> Heavy

Canopy Cover 0% 1-5% 6-25% 26-50% 51-75% 76-100%
Algal Growth 0% 1-5% 6-25% 26-50% 51-75% 76-100%
Substrate Siltation Coverage: Estimate the percentage of the stream bed that is covered by silt.
 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Are there Submerged Aquatic Plants? Yes No

If yes, what types? _____
List the types of riparian (stream side) vegetation present at the site. GRASS, TREES

Bottom Substrate: Using the percent codes below, record the percentage of each of the materials that make up the stream bottom by writing the percent code letter in the blank next to the bottom substrate type. If the substrate is not present at the site, write letter A in the blank.

Percent cover codes: A = 0% B = 1-5% C = 6-25% D = 26-50% E = 51-75% F = 76-100%

<u>A</u> Bedrock	<u>A</u> Cobble (2.5 in – 10 in)	<u>D</u> Sand (<0.1 in)
<u>A</u> Boulder (> 10 in)	<u>A</u> Gravel (0.1 in – 2.5 in)	<u>D</u> Silt
<u>B</u> Hard Pan Clay	Other _____	

Stream Discharge Estimate

Stream Width: 5-20' feet
A

If you can only record two depth or velocity measurements, please calculate the average by dividing the sum by 2.

If only one measurement is taken, use the single value as the average.

Depth Measurements:

1. 1-2' ft
2. _____ ft
3. _____ ft

Average Depth = _____ feet
B

Velocity Calculations:

- 10 ft ÷ _____ seconds = _____ ft/sec
 10 ft ÷ _____ seconds = _____ ft/sec
 10 ft ÷ _____ seconds = _____ ft/sec

Average Velocity = _____ ft/sec
C

Discharge (width x depth x velocity) _____ ft x _____ ft x _____ ft/sec = _____ ft³/sec
 A B C

Land Uses

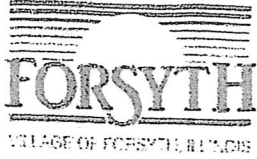
Record all visible land uses occurring upstream and on either side of the stream site. Indicate which land uses are dominant (D) and which affect small areas (X). If a listed land use is not present, leave blank.

<input checked="" type="checkbox"/>	Forest (W1)	<input type="checkbox"/>	Logging (W2)	<input type="checkbox"/>	Golf Course (W3)
<input checked="" type="checkbox"/>	Grassland and Ungrazed Field (W4)	<input type="checkbox"/>	Commercial (W6)	<input checked="" type="checkbox"/>	Scattered Residential (W7)
<input type="checkbox"/>	High-Density Residential/Urban (W8)	<input checked="" type="checkbox"/>	Cropland (W9) Type? (W9T) _____	<input type="checkbox"/>	Sewage Treatment (W10)
<input type="checkbox"/>	Park (W11)	<input type="checkbox"/>	Mining (W12) Type? (W12T) _____	<input type="checkbox"/>	Sanitary Landfill (W13)
<input checked="" type="checkbox"/>	Livestock Pasture (W14)	<input checked="" type="checkbox"/>	Construction (W15) Type? (W15T) _____	<input checked="" type="checkbox"/>	Industrial (W16)
<input type="checkbox"/>	Other (W17) _____				

Please circle YES or NO and provide the necessary information to answer the following questions:

1. Upstream dam? (including beaver dams) YES NO
 If yes, approximately how far upstream? NONE NOTED
2. Wastewater treatment discharge upstream? YES NO
 If yes, approximately how far upstream? _____
3. Any pipes emptying directly into or near your study site? YES NO
4. Channel Alteration. Has the stream been channelized (straightened) at your site? YES NO
 If yes, what percentage of your site has been channelized? _____ %

Habitat Survey Notes (Include sediment odors, appearance, and/or the presence of silt, watershed features present but not listed on this data sheet, and any other information you feel is important or interesting to mention. Attach separate sheet if needed.)



Outfall Monitoring Sheet

Site ID #: SPRING CREEK
 Stream: WOODLAND + CANTON
 Date: 6-3-9

Name(s) of Inspector(s): LAW S.
 Start Time: 2:05 am pm
 End Time: 2:20 am pm

Present Weather <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rainy (Steady) <input type="checkbox"/> Stormy (Heavy)	Worst Weather in past 48 hours <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rain (Steady) <input type="checkbox"/> Storm (Heavy)	Temperature Air <u>80</u> °F °C Water _____ °F °C
Water Appearance <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Milky <input type="checkbox"/> Foamy <input type="checkbox"/> Dark Brown <input type="checkbox"/> Oily Sheen <input type="checkbox"/> Reddish <input type="checkbox"/> Green <input type="checkbox"/> Other _____	Water Odor <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage <input type="checkbox"/> Chlorine <input type="checkbox"/> Fishy <input type="checkbox"/> Rotten Eggs <input type="checkbox"/> Petroleum <input type="checkbox"/> Other _____	Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slight <input type="checkbox"/> Medium <input type="checkbox"/> Heavy

Canopy Cover 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Algal Growth 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Substrate Siltation Coverage: Estimate the percentage of the stream bed that is covered by silt.
 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Are there Submerged Aquatic Plants? Yes No

If yes, what types? _____

List the types of riparian (stream side) vegetation present at the site. _____
GRASS - TREES

Bottom Substrate: Using the percent codes below, record the percentage of each of the materials that make up the stream bottom by writing the percent code letter in the blank next to the bottom substrate type. If the substrate is not present at the site, write letter A in the blank.

Percent cover codes: A = 0% B = 1-5% C = 6-25% D = 26-50% E = 51-75% F = 76-100%

<u>A</u> Bedrock	<u>A</u> Cobble (2.5 in – 10 in)	<u>D</u> Sand (<0.1 in)
<u>A</u> Boulder (> 10 in)	<u>D</u> Gravel (0.1 in – 2.5 in)	<u>D</u> Silt
<u>D</u> Hard Pan Clay	Other _____	

Stream Discharge Estimate

Stream Width: 20' feet
A

If you can only record two depth or velocity measurements, please calculate the average by dividing the sum by 2.

If only one measurement is taken, use the single value as the average.

Depth Measurements:

1. 3 ft
2. _____ ft
3. _____ ft

Average Depth = _____ feet
B

Velocity Calculations:

10 ft ÷ _____ seconds = _____ ft/sec

10 ft ÷ _____ seconds = _____ ft/sec

10 ft ÷ _____ seconds = _____ ft/sec

Average Velocity = _____ ft/sec
C

Discharge (width x depth x velocity) _____ ft x _____ ft x _____ ft/sec = _____ ft³/sec
A B C

Land Uses

Record all visible land uses occurring upstream and on either side of the stream site. Indicate which land uses are dominant (D) and which affect small areas (X). If a listed land use is not present, leave blank.

<input type="checkbox"/>	Forest (W1)	<input type="checkbox"/>	Logging (W2)	<input checked="" type="checkbox"/>	Golf Course (W3)
<input checked="" type="checkbox"/>	Grassland and Ungrazed Field (W4)	<input type="checkbox"/>	Commercial (W6)	<input checked="" type="checkbox"/>	Scattered Residential (W7)
<input checked="" type="checkbox"/>	High-Density Residential/Urban (W8)	<input checked="" type="checkbox"/>	Cropland (W9) Type? (W9T) _____	<input type="checkbox"/>	Sewage Treatment (W10)
<input checked="" type="checkbox"/>	Park (W11)	<input type="checkbox"/>	Mining (W12) Type? (W12T) _____	<input type="checkbox"/>	Sanitary Landfill (W13)
<input type="checkbox"/>	Livestock Pasture (W14)	<input type="checkbox"/>	Construction (W15) Type? (W15T) _____	<input type="checkbox"/>	Industrial (W16)
<input type="checkbox"/>	Other (W17) _____	<input type="checkbox"/>		<input type="checkbox"/>	

Please circle YES or NO and provide the necessary information to answer the following questions:

1. Upstream dam? (including beaver dams) YES NO NONE NOTED
If yes, approximately how far upstream? _____
2. Wastewater treatment discharge upstream? YES NO
If yes, approximately how far upstream? _____
3. Any pipes emptying directly into or near your study site? YES NO
4. Channel Alteration. Has the stream been channelized (straightened) at your site? YES NO
If yes, what percentage of your site has been channelized? _____ %

Habitat Survey Notes (Include sediment odors, appearance, and/or the presence of silt, watershed features present but not listed on this data sheet, and any other information you feel is important or interesting to mention. Attach separate sheet if needed.)



INFLUENT

Outfall Monitoring Sheet

Site ID #: STEVENS CREEK
 Stream: C620 + WINDY
 Date: 10-9-19

Name(s) of Inspector(s): MIN SUMMERS

Start Time: 10:10 am pm

End Time: 10:35 am pm

Present Weather

- Clear/Sunny
- Overcast
- Showers (Intermittent)
- Rainy (Steady)
- Stormy (Heavy)

Worst Weather in past 48 hours

- Clear/Sunny
- Overcast
- Showers (Intermittent)
- Rain (Steady)
- Storm (Heavy)

Temperature

Air 55 °F °C
 Water _____ °F °C

Water Appearance

- Clear
- Milky
- Foamy
- Dark Brown
- Oily Sheen
- Reddish
- Green
- Other _____

Water Odor

- None
- Sewage
- Chlorine
- Fishy
- Rotten Eggs
- Petroleum
- Other _____

Turbidity

- Clear
- Slight
- Medium
- Heavy

- Canopy Cover 0% 1-5% 6-25% 26-50% 51-75% 76-100%
- Algal Growth 0% 1-5% 6-25% 26-50% 51-75% 76-100%
- Substrate Siltation Coverage: Estimate the percentage of the stream bed that is covered by silt.
 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Are there Submerged Aquatic Plants? Yes No

If yes, what types? _____

List the types of riparian (stream side) vegetation present at the site. _____

GLASS TREES

Bottom Substrate: Using the percent codes below, record the percentage of each of the materials that make up the stream bottom by writing the percent code letter in the blank next to the bottom substrate type. If the substrate is not present at the site, write letter A in the blank.

Percent cover codes: A = 0% B = 1-5% C = 6-25% D = 26-50% E = 51-75% F = 76-100%

- A Bedrock
- B Boulder (> 10 in)
- B Hard Pan Clay
- A Cobble (2.5 in – 10 in)
- A Gravel (0.1 in – 2.5 in)
- Other _____
- D Sand (<0.1 in)
- A Silt

Stream Discharge Estimate

Stream Width: 20 feet
A

If you can only record two depth or velocity measurements, please calculate the average by dividing the sum by 2.

If only one measurement is taken, use the single value as the average.

Depth Measurements:

1. 1 ft
2. ft
3. ft

Average Depth = feet
B

Velocity Calculations:

10 ft ÷ seconds = ft/sec

10 ft ÷ seconds = ft/sec

10 ft ÷ seconds = ft/sec

Average Velocity = ft/sec
C

Discharge (width x depth x velocity) ft x ft x ft/sec = ft³/sec
A B C

Land Uses

Record all visible land uses occurring upstream and on either side of the stream site. Indicate which land uses are dominant (D) and which affect small areas (X). If a listed land use is not present, leave blank.

<input checked="" type="checkbox"/> Forest (W1)	<input type="checkbox"/> Logging (W2)	<input type="checkbox"/> Golf Course (W3)
<input checked="" type="checkbox"/> Grassland and Ungrazed Field (W4)	<input type="checkbox"/> Commercial (W6)	<input checked="" type="checkbox"/> Scattered Residential (W7)
<input type="checkbox"/> High-Density Residential/Urban (W8)	<input checked="" type="checkbox"/> Cropland (W9) Type? (W9T) <u> </u>	<input type="checkbox"/> Sewage Treatment (W10)
<input type="checkbox"/> Park (W11)	<input type="checkbox"/> Mining (W12) Type? (W12T) <u> </u>	<input type="checkbox"/> Sanitary Landfill (W13)
<input type="checkbox"/> Livestock Pasture (W14)	<input type="checkbox"/> Construction (W15) Type? (W15T) <u> </u>	<input type="checkbox"/> Industrial (W16)
<input checked="" type="checkbox"/> Other (W17) <u> </u>		

Please circle YES or NO and provide the necessary information to answer the following questions:

1. Upstream dam? (including beaver dams) YES NO
If yes, approximately how far upstream? NONE NOTED
2. Wastewater treatment discharge upstream? YES NO
If yes, approximately how far upstream?
3. Any pipes emptying directly into or near your study site? YES NO
4. Channel Alteration. Has the stream been channelized (straightened) at your site? YES NO
If yes, what percentage of your site has been channelized? %

Habitat Survey Notes (Include sediment odors, appearance, and/or the presence of silt, watershed features present but not listed on this data sheet, and any other information you feel is important or interesting to mention. Attach separate sheet if needed.)



EFFLUENT
Outfall Monitoring Sheet

Site ID #: SPRING CREEK
Stream: WOODLAND & LAMBDA
Date: 10-9-19

Name(s) of Inspector(s): LINN SUMMERS
Start Time: 10 : 45 am pm End Time: 11 : 00 am pm

Present Weather <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rainy (Steady) <input type="checkbox"/> Stormy (Heavy)	Worst Weather in past 48 hours <input checked="" type="checkbox"/> Clear/Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Showers (Intermittent) <input type="checkbox"/> Rain (Steady) <input type="checkbox"/> Storm (Heavy)	Temperature Air <u>56</u> °F °C Water _____ °F °C
Water Appearance <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Milky <input type="checkbox"/> Foamy <input type="checkbox"/> Dark Brown <input type="checkbox"/> Oily Sheen <input type="checkbox"/> Reddish <input type="checkbox"/> Green <input type="checkbox"/> Other _____	Water Odor <input checked="" type="checkbox"/> None <input type="checkbox"/> Sewage <input type="checkbox"/> Chlorine <input type="checkbox"/> Fishy <input type="checkbox"/> Rotten Eggs <input type="checkbox"/> Petroleum <input type="checkbox"/> Other _____	Turbidity <input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Medium <input type="checkbox"/> Heavy

Canopy Cover 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Algal Growth 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Substrate Siltation Coverage: Estimate the percentage of the stream bed that is covered by silt.
 0% 1-5% 6-25% 26-50% 51-75% 76-100%

Are there Submerged Aquatic Plants? Yes **No**

If yes, what types? _____

List the types of riparian (stream side) vegetation present at the site. _____

Bottom Substrate: Using the percent codes below, record the percentage of each of the materials that make up the stream bottom by writing the percent code letter in the blank next to the bottom substrate type. If the substrate is not present at the site, write letter A in the blank.

Percent cover codes: A = 0% B = 1-5% C = 6-25% D = 26-50% E = 51-75% F = 76-100%

<u>A</u> Bedrock	<u>A</u> Cobble (2.5 in – 10 in)	<u>D</u> Sand (<0.1 in)
<u>A</u> Boulder (> 10 in)	<u>D</u> Gravel (0.1 in – 2.5 in)	<u>D</u> Silt
<u>D</u> Hard Pan Clay	_____ Other _____	

Stream Discharge Estimate

Stream Width: 30 feet
A

If you can only record two depth or velocity measurements, please calculate the average by dividing the sum by 2.

If only one measurement is taken, use the single value as the average.

Depth Measurements:

1. 1.3 ft
2. _____ ft
3. _____ ft

Average Depth = _____ feet
B

Velocity Calculations:

10 ft ÷ _____ seconds = _____ ft/sec

10 ft ÷ _____ seconds = _____ ft/sec

10 ft ÷ _____ seconds = _____ ft/sec

Average Velocity = _____ ft/sec
C

Discharge (width x depth x velocity) _____ ft x _____ ft x _____ ft/sec = _____ ft³/sec
A B C

Land Uses

Record all visible land uses occurring upstream and on either side of the stream site. Indicate which land uses are dominant (D) and which affect small areas (X). If a listed land use is not present, leave blank.

<input type="checkbox"/>	Forest (W1)	<input type="checkbox"/>	Logging (W2)	<input checked="" type="checkbox"/>	Golf Course (W3)
<input checked="" type="checkbox"/>	Grassland and Ungrazed Field (W4)	<input type="checkbox"/>	Commercial (W6)	<input checked="" type="checkbox"/>	Scattered Residential (W7)
<input checked="" type="checkbox"/>	High-Density Residential/Urban (W8)	<input checked="" type="checkbox"/>	Cropland (W9) Type? (W9T) _____	<input type="checkbox"/>	Sewage Treatment (W10)
<input checked="" type="checkbox"/>	Park (W11)	<input type="checkbox"/>	Mining (W12) Type? (W12T) _____	<input type="checkbox"/>	Sanitary Landfill (W13)
<input type="checkbox"/>	Livestock Pasture (W14)	<input type="checkbox"/>	Construction (W15) Type? (W15T) _____	<input type="checkbox"/>	Industrial (W16)
<input type="checkbox"/>	Other (W17) _____				

Please circle YES or NO and provide the necessary information to answer the following questions:

1. Upstream dam? (including beaver dams) YES NO
If yes, approximately how far upstream? NONE NOTED
2. Wastewater treatment discharge upstream? YES NO
If yes, approximately how far upstream? _____
3. Any pipes emptying directly into or near your study site? YES NO
4. Channel Alteration. Has the stream been channelized (straightened) at your site? YES NO
If yes, what percentage of your site has been channelized? _____ %

Habitat Survey Notes (Include sediment odors, appearance, and/or the presence of silt, watershed features present but not listed on this data sheet, and any other information you feel is important or interesting to mention. Attach separate sheet if needed.)



OUTFALL STRUCTURES

Date: 6-3-19
Time: 11am
Name of Inspector: LINN SUMMERS
Location: TIMBER + ME DONALD
Weather: SUNNY
Weather Past 48 Hours: DRY
Temperature: 78
Water Appearance: CLEAR
Water Odor: NONE
Turbidity:



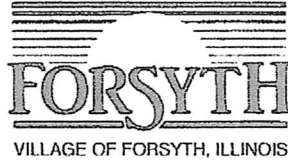
OUTFALL STRUCTURES

Date: 6-3-19
Time: 11:30 AM
Name of Inspector: LINDA SUMMERS
Location: MARKET STREET
Weather: SUNNY
Weather Past 48 Hours: DRY
Temperature: 78
Water Appearance: CLEAR
Water Odor: NONE
Turbidity:



OUTFALL STRUCTURES

Date: 6-3-19
Time: 1 PM
Name of Inspector: LANN SUMMERS
Location: MAIN PARK
Weather: SUNNY
Weather Past 48 Hours: DRY
Temperature: 78
Water Appearance: LOW / CLEAR
Water Odor: NONE
Turbidity:



OUTFALL STRUCTURES

Date: 10-9-19

Time: 9:30A

Name of Inspector:

Location: MARKET ST

Weather: SUNNY

Weather Past 48 Hours: CLEAR

Temperature: 56

Water Appearance: CLEAR

Water Odor: NONE

Turbidity: NONE



OUTFALL STRUCTURES

Date: 10-9-19

Time: 9:45A

Name of Inspector:

Location: TIMBER + McDONALD

Weather: SUNNY

Weather Past 48 Hours: CLEAR

Temperature: 56

Water Appearance: CLEAR

Water Odor: NONE

Turbidity: NONE



OUTFALL STRUCTURES

Date: 10-7-19

Time: 9:10 A

Name of Inspector: LINN SUMMERS

Location: MAIN PARK

Weather: SUNNY

Weather Past 48 Hours: SUNNY

Temperature: 54°

Water Appearance: CLEAR

Water Odor: NONE

Turbidity: NONE - CLEAR



STEVENS CREEK AFTER RAINFALL EVENT INSPECTION REPORT

Name of Inspector: LEW SUMMERS

Date: JAN 13 2020

Rainfall Event: JAN 10 & 11

Water appearance: DARK - MUDDY looking

Water flow: HIGH - OUT OF BANKS

Location of inspection: STEVENS CREEK ON WEAVER RD

Comments: JAN 10 - 1.3" JAN 11 2.1" OF RAIN -
