



Rule 13 - MS4 ANNUAL REPORT

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

For questions regarding this form, contact:

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

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

Five Year Permit Term	Reporting Year
<input type="checkbox"/> 1st Permit Term	Permit Year <u>2022</u>
<input checked="" type="checkbox"/> Second and subsequent five (5) Year Permit Terms	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 MS4s in their first permit term must submit reports annually. MS4s that are in subsequent permit terms must submit in years 2 and 4 of the permit term.

PART A: GENERAL INFORMATION – MS4 OPERATOR

1. Permit Number:	INR 0 4 0 089	Type of MS4:	
2. MS4 Entity:	Monroe County <i>(Name of permit holder)</i>	<input type="checkbox"/> City	<input type="checkbox"/> Town
		<input checked="" type="checkbox"/> County	<input type="checkbox"/> Non-traditional
3. MS4 Operator:	Monroe County Board of Commissioners		
4. Mailing Address:	100 W Kirkwood Ave. Room 323 Bloomington, IN ZIP: 47404 County: Monroe		
5. Email Address:	commissionersoffice@co.monroe.in.us		

PART B: GENERAL INFORMATION – MS4 COORDINATOR

6. MS4 Coordinator (<i>please print</i>):	Kelsey Thetonia		
7. Person's Title:	MS4 Coordinator		
8. Mailing Address:	501 N Morton St. Suite 216 Bloomington, IN ZIP: 47404		
9. Telephone Number:	(812) 349-2499		
10. E-mail Address:	kthetonia@co.monroe.in.us		

PART C: GENERAL INFORMATION – REPORT PREPARER

11. Name:	Adam Rickert <i>(Provide this information if someone other than MS4 Operator or Coordinator completed this report.)</i>		
12. Affiliation with the MS4:	MS4 Program Assistant		
13. Mailing Address:	501 N Morton St. Suite 216 Bloomington, IN ZIP: 47404		
14. Telephone Number:	(812) 349-2960	Extension:	
15. E-mail Address:	arickert@co.monroe.in.us		

PART J: MUNICIPAL OPERATIONS POLLUTION PREVENTION AND GOOD HOUSEKEEPING - MINIMUM CONTROL MEASURE

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

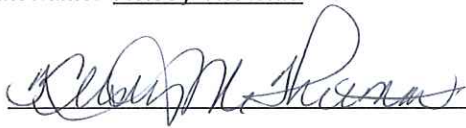
- a) Identify progress made towards development and implementation of each BMP in the SWQMP including timetables and measurable goals during this reporting period.
- b) Describe implementation problems encountered and changes due to ineffectiveness or infeasibility as it relates to pollution prevention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

PART K: CERTIFICATION AND SIGNATURE

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

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

Type or Print Name: Kelsey Thetonia

Signature: 

3/31/2023
(mm/dd/yyyy)



MONROE COUNTY MS4 INR040089

2022 Annual Report



Monroe County Stormwater Services

Located at Monroe County Highway Department:
501 N. Morton Street, Suite 216, Bloomington, IN 47404

Phone: (812) 349-2565

Fax: (812) 349-2959

www.co.monroe.in.us

March 29, 2023

Monroe County Highway, Stormwater Services staff contributing to the 2022 Annual Report, MS4 Permit INR040089 Minimum Control Measures and overall permit compliance:

Lynnette Murphy, Administrative Assistant.

Lynnette tracks maintenance for our stormwater assets and requests for stormwater infrastructure maintenance/repair within Cartegraph, our GIS asset management system. Lynnette tracks and maintains purchase accounts for Stormwater Services, complies the Stormwater Management Board and Drainage Board meeting packets as well as completes updates to Stormwater Services website.

Adam Rickert, Stormwater Specialist.

Adam is responsible for MCM 1 and 2, Public Education and Outreach, MCM 3, Illicit Discharge Detection and Elimination and MCM 6, Municipal Operations Pollution Prevention and Housekeeping.

Erica Penna, Stormwater Inspector.

Erica is responsible for MCM 4, Construction Site Stormwater Runoff Control and MCM 5, Post-construction Stormwater Runoff Control.

Forrest Levy, Indiana University Fellow student.

Forest completes research, social media post management and project support for MCMs 1,2, 4 and 5.

Marie Dishian, Indiana University Fellow student.

Marie completes research, social media post management and project support for individual MCMs 1,2,4 and 5.

Jason Moore, Stormwater Crew Supervisor.

Jason leads a seven-person crew in completing installation, maintenance and repair to stormwater infrastructure assets.

Kelsey Thetonia, MS4 Coordinator.

Kelsey oversees project development, operations and work responsibilities related to MCMs 1-6. Kelsey completes drainage review for permitted projects and coordinates with the Stormwater Management Board, Drainage Board and County Commissioners.

PART D: PROGRAM MANAGEMENT

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

a) If this is a co-permit, list all permittees and operators responsible for permit implementation for each entity.

Ivy Tech State College-Bloomington, INRA40003

b) Identify changes to the MS4 area boundaries, including areas added to or lost to the MS4 area via annexation or other similar means. Provide a current map (8.5" x 11" or 8.5" x 14")

32.65 acres was annexed to the Town of Ellettsville during 2022. Full size map is located on page 2.

c) Identify follow-up or additional water quality characterizations completed during the reporting period if applicable.

No additional water quality characterizations were completed during the reporting period.

d) Provide updated receiving water information completed during the reporting period if applicable. N/A

e) Identify funding sources (utility fees, grants, enforcement fines, etc.) utilized for MS4 program implementation during this reporting period.

Monroe County MS4 is funded by stormwater utility fees, which are included on the Spring and Fall property tax bill statements.

As development occurs and impervious surfaces are added to parcels, the stormwater fees are annually updated and reviewed for developed parcels.

Total stormwater fees applied during 2022 in the MS4 jurisdiction (22,186 parcels) totaled \$2,521,432.24.

Stinesville

For the year 2022, stormwater fees applied to 96 parcels within Stinesville totaled \$3,736.14. Stinesville stormwater fee is \$35.25 and the fee is placed on personal property tax bills and collected in spring and fall installments. The fee goes directly to Stinesville and is not managed by Monroe County MS4.

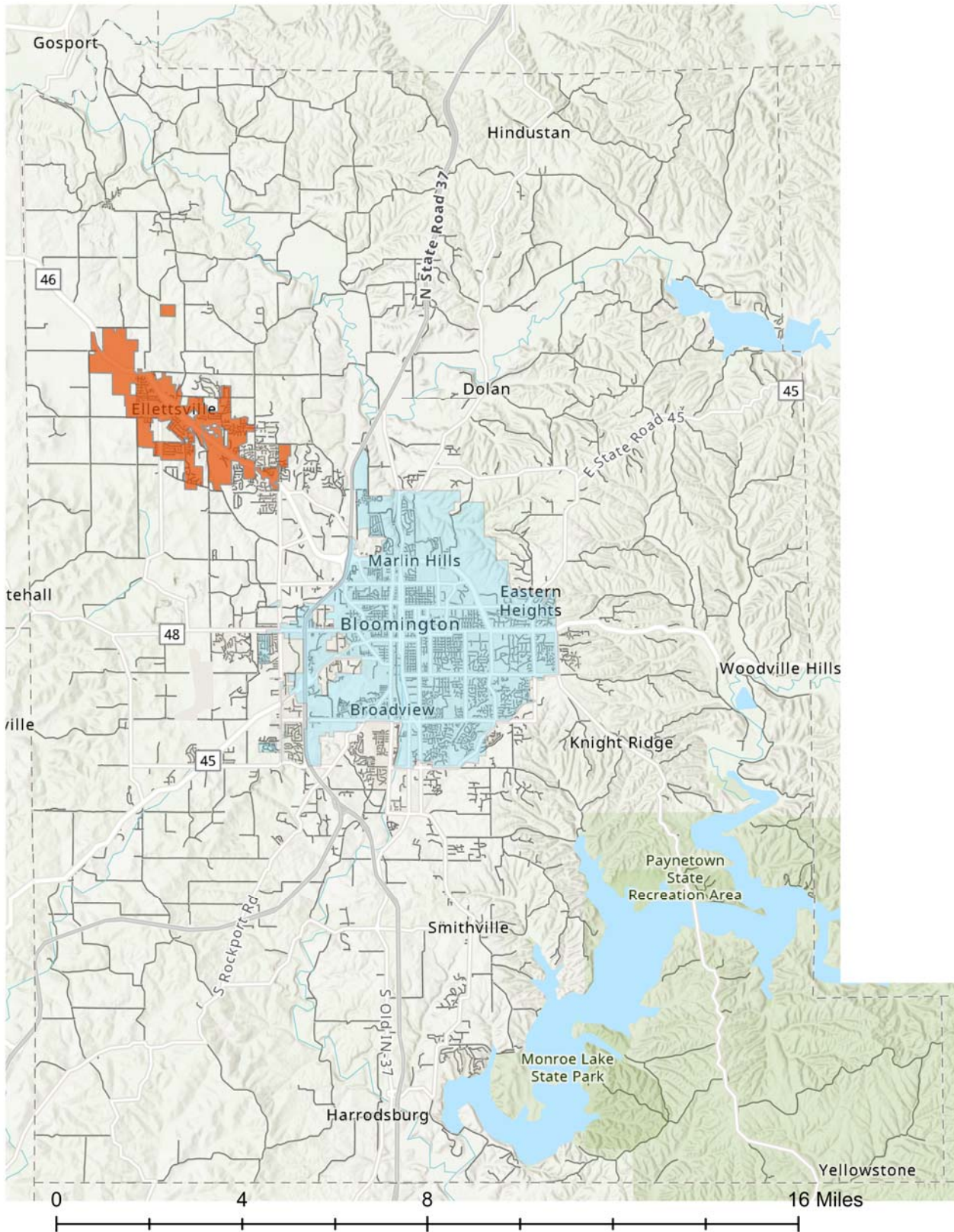
f) Provide a list of new active industrial sites identified during this reporting period.

No new industrial sites were identified during the reporting period.

g) Provide a list of facilities owned and operated by the MS4 that require Rule 6 (industrial stormwater) permits.

Monroe County Airport INRM00165 for permit period 5/9/19-6/21/2024.

Map of Monroe County MS4 Area with Excluded Corporate Boundaries



Legend

Corporate Boundaries

- Bloomington
- Ellettsville
- Roads

Map created 3 30 2023

h) Provide a summary of requests received and follow-up investigation results related to stormwater quality issues during the reporting period.

Stormwater Services entered 286 stormwater related requests into Cartegraph, our asset and work tracking software during the 2022 reporting period with 323 requests closed by our stormwater crew. Stormwater Services may receive multiple calls on the same issue and during 2022, we received 343 calls/logs. While we do not open a new request for the same issue, we track the additional calls to the original request. When multiple calls are logged for the same request, this helps us determine the severity of the issue. Below is a summary of request types and total by request type.

286 Requests Received in 2022	Request Type	Total by Request Type
	Clean Culvert/Inlet	53
	Debris Removal	4
	Drainage (ditching or make berm)	77
	Investigate	46
	Repair, replace culvert	11
	Repair, replace inlet	12
	Street Sweeping	42
	Areas Washed Out	15
	Miscellaneous (Needs Aggregate, Road Shoulder improvements)	26
Percentage of repairs/improvements completed based on requests: 113%	Total	286

During 2022, Stormwater Services made a concerted effort to complete and close out older requests open for 12 months or more. The completion and closure of requests older than 12 months is reflected in the 113% value provided above. A Cartegraph report was created to determine how many requests open longer than 12 months were closed over a specified date range. For 2022 the report indicated:

Number and percentage of open requests closed within less than 12 months:	268	83%
“ “ closed within 13-24 months:	26	8%
“ “ closed within 25-36 months:	13	4%
“ “ closed greater than 36 months:	16	5%

A request to improve a segment of ditch will involve several tasks such as initial investigation, locating of utilities, removing soil, cleaning of culverts and/or culvert replacement and placement of straw and grass seed. Ditching completed during 2022 was just shy of 50 miles or 262,421 feet. Ditching is completed in conjunction with and just prior to scheduled pavement projects.

During the January 11, 2023 Stormwater Management Board, Lynnette Murphy provided the total amount of requests/calls, culverts cleaned/installed and miles of street sweeping completed as of December 13, 2022, see graphic on page 3.

i) Other:

Monroe County Stormwater Services

2022 End of Year Report Totals



REQUESTS/Calls

Opened

342

Closed

418

CULVERTS

Bridge Crew

Replaced

134

Bridge Crew

Installed NEW

9

County

Cleaned

80

Private Driveway

Cleaned/Installed

26

STONE

Tons used

2,529.28

STREET SWEEPING

Miles

281.9

Hauled Sand

Tons

1,171.13

DITCHING

Miles

44.7



PART E: PUBLIC EDUCATION AND OUTREACH – MINIMUM CONTROL MEASURE

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

a) Identify progress made towards development and implementation of each BMP for this minimum control measure (MCM) including timetables and measurable goals during this reporting period.

MCM 1 Activity 1

Update the stormwater website to communicate the goals and objectives of the stormwater program, to provide stormwater resources, and to solicit public feedback on programs.

Monroe County's NOI was posted to our website on 5 25 2022 and on 10 20 2022, 2 fact sheets were posted under the Macroinvertebrates & Water Quality topic.

MCM 1 Activity 2

Create an annual Monroe County Stormwater Calendar.

The annual calendar has been produced by staff and interns since 2015. The calendar features citizen and staff photographs of natural areas in the county, and promotes stormwater information and BMPs for the public. During 2022, a 2023 calendar was created and distributed with the title of *Partners for Protecting Our Water Supply*. Each month promoted a partner organization or Monroe County Stormwater Services providing services to maintain and improve water quality:

January: Promoted **Lower Salt Creek Watershed Plan** and included an excerpt from the Plan.

February: Promoted number of drain inlets, ditches and culverts **MC Stormwater Crew** maintains.

March: Promoted **MC Parks and Recreation Department** environmental education opportunities.

April: Promoted household hazardous waste disposal services through **MC Solid Waste District**.

May: Promoted monthly cleanups around Lake Monroe organized by **Friends of Lake Monroe**.

June: Promoted **MC Soil and Water Conservation District**.

July: Featured drainage improvement project (before, during, and after) completed by our Stormwater Crew.

August: Promoted Friends of Lake Monroe *Pump your Tank* message/program for septic systems.

September: **Lower Salt Creek Watershed Plan** goals to calculate/reduce sediment and pollutant loading.

October: Promoted **MC Soil and Water CD** education on the benefits of no till and maintaining cover crops.

November: Promoted the 5 recycling centers **MC Solid Waste District** maintains within the county.

December: Featured winter pictures taken at Will Detmer and Karst Farm Park.

1,000 copies of the 2023 calendar were created and then distributed or made available at the 2022 Monroe County Fair, County Departments, County Courthouse lobby, Showers Building lobby and MC Public Library Downtown Branch lobby.

MCM 1 Activity 3

Create educational displays and participate in tabling opportunities at local events.

<u>Event</u>	<u>Date(s)</u>	<u>Attendance</u>
Monroe County Master Gardener Fair	4 2 2022	over 1,500
Monroe County Fair	6/27-7/3/2022	50-100 people most evenings
Children's Farm Festival at Peden Farms	9/29-9/30/2022	200-300 students/teachers per day
Bugfest	10-1-2022	1,500
Trends in Heavy Rainfall: Flooding and Drought Across Indiana	10 16 2022	25

MCM 1 Activity 4

Provide updated information to forestry professionals regarding best practices for erosion and sediment control for logging operations.

Kelsey Thetonia (MS4 Coordinator) met with Duane McCoy, Timber Buyer Licensing Forester with the IN Department of Natural Resources on January 26, 2022, to discuss forest harvesting best practices and logging permitting in Monroe County. The goal of this meeting was to discuss concerns with the current permitting system in the County, to discuss what the DNR currently does to support stormwater best practices on logging sites in the state, and to brainstorm ideas for making a local logging permit that works better for everyone. The County Planning Department and Stormwater Program have incorporated ideas from this discussion into a new draft logging ordinance, to be completed in 2023.

The DNR released an updated Forestry BMP Field Guide in November 2022, which covers many of the stormwater best practices we need to see on logging projects. By the end of our MS4 Permit cycle, we plan to release our own Forestry Guide for Logging Permits in Monroe County to provide specific instructions to logging companies for complying with the County's logging ordinance and permit requirements.

MCM 1 Activity 5

Distribute educational materials to fuel stations and restaurants.

During 2022, 14 retail gas stations were operating within the MS4 jurisdiction. Retail gas station operators/owners were contacted via a letter in November 2022 informing them of the educational stormwater inspections to be completed at their stations in early December 2022. The letter summarized what would be inspected and emphasized during the inspections including BMPs such as daily cleaning of areas impacted by trash/debris, presence and use of a spill kit and prompt cleaning of areas impacted by spills.

A survey was included within the letter to retail gas station operators/owners to aid in identifying what physical BMPs and drainage infrastructure exists at their properties. During the educational inspections, the employees working at the retail gas station were asked a seven-question survey to determine if (non-infrastructure) stormwater BMPs were already in place and to promote the use of the BMPs moving forward. Each retail gas station was provided a laminated **Best Practices: Stormwater Pollution Prevention For Gasoline Stations** educational poster emphasizing the BMPs covered in the seven-question survey. The retail gas station employee survey results and educational poster are available in **Appendix A**.

Restaurants and other food service industries with a higher risk of contributing stormwater pollutants (specifically food establishments using grease dumpsters) were not inspected during 2022. Moving forward, Stormwater Services intends to work with the Monroe County Health Department to identify food establishments using grease dumpsters and then complete an educational stormwater inspection emphasizing similar BMPs and concepts of the retail gas station inspections. Of the 14 retail gas stations inspected in December 2022, 7 utilized food grease dumpsters.

MCM 1 Activity 6

Post on social media (Facebook, Instagram) to provide program updates and resources.

Stormwater Services interns and staff completed social media posts throughout 2022 and documented the entire post within a spreadsheet. Statistics about each Facebook post were tracked as well and included publishing date/time, impressions, people reached, engagements, shares, likes, comments and total clicks, see **Appendix B**. Software to track Instagram Statistics was not available to Stormwater Services during 2022.

2022 Social Media Posts	
Facebook	101
Instagram	72

MCM 1 Activity 7

Send stormwater-related postcards or mailings to residents in specific watersheds.

2022

During the 4th quarter of 2022, staff worked with the Lawrence County Soil and Water Conservation District and the City of Bloomington MS4 to create post cards for residents within the Salt Creek Watershed. The post card will promote the Lower Salt Creek Watershed Plan and include a link for interested residents to complete a survey. Through completing the survey, we will attempt to establish a database of residents expressing interest in participating in potential **Lower Salt Creek Watershed Plan** cost share programs and community events such as trash removal along streams/lakes.

As of December 2022, the Lower Salt Creek Watershed Plan has not received funding approval through IDEM.

b) Describe implementation problems encountered and changes made due to ineffectiveness or infeasibility during this reporting period.

For the Salt Creek post card mailing, the initial number of parcels identified within the watershed presented a significant mailing and printing cost consideration as well as staff time. After receiving assistance from MC GIS Division and improved GIS analysis, parcels within the watershed (both within City of Bloomington and MC) were accurately identified and vacant parcels were eliminated.

A few weeks prior to completing the educational stormwater inspections at retail gas stations, a survey was sent to the owners/operators along with a cover letter outlining the purpose of the inspections. The one-page owner/operator survey asked three questions: whether the station has a stormwater oil/water separator or similar infrastructure, how many times per year employees are trained on stormwater pollution prevention and the location where the stormwater exits their property. The number of returned/completed surveys (2 out of 14) was low despite the owners/operators having the option of returning a hard copy survey with a prepaid envelope or submitting it online via our Cognito web survey account.

c) Describe program BMPs that went beyond those identified in the SWQMP.

During 2022, Stormwater Services tabled at 5 educational events and exceeded the SWQMP goal of 2 events. For social media posts, the SWQMP goal was to post at least 1 time a month and Stormwater Services created posts several times per week.

Stormwater Services staff Kelsey Thetonia and Adam Rickert provided a presentation on watershed delineation techniques and macroinvertebrates and water quality at the Master Naturalist course on October 2, 2022.

d) Identify storm water BMPs installed or initiated for this MCM during this reporting period.

The retail gas station survey sent to owners/operators as well as the educational retail gas station field inspections initiated and completed during 2022.

e) Describe program implementation partnerships and explain successes and barriers during this reporting period.

For the 2023 Stormwater Calendar, Stormwater Services successfully coordinated with MC Solid Waste District, MC Soil and Water, Friends of Lake Monroe, Lawrence County Soil and Water (Lower Salt Creek Watershed Plan) and MC Parks and Recreation to promote activities related to stormwater protection and education.

For the 2022 Monroe County Fair, Stormwater Services partnered with MC Soil and Water Conservation District as well as the MC Solid Waste District. All three departments coordinated before the fair to develop a consistent message, unified display sign and common back drop, see **Appendix C**. Following the fair, representatives from all three departments met (on July 15, 2022) to review areas that went well and areas needing improvement.

No significant barriers were encountered during the reporting period.

f) Other: None.

PART F: PUBLIC PARTICIPATION AND INVOLVEMENT - MINIMUM CONTROL MEASURE

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

a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period.

MCM 2 Activity 1

Hold monthly meetings of the Stormwater Management Board that are open to the public

2022 **Stormwater Management Board** (SWMB) monthly meetings were held virtually and are available through the SWMB web page, <https://www.co.monroe.in.us/department/board.php?structureid=134>. SWMB meetings in 2022 were held on the 2nd Wednesday of each month (beginning at 3pm) with the exception of cancelled meeting during the months of March, June, September and October. Meeting minutes, agendas and supporting documents related to each SWMB meeting are available at the above web page as well.

MCM 2 Activity 2

Administer surveys to gather public input.

During the 2022 Contractors Workshop, a post-event survey was distributed to participants to determine satisfaction with the topic areas and content presented, potential topic areas and content for future workshops as well as input regarding the workshop venue.

MCM 2 Activity 3

Host or sponsor clean-up events to remove trash from our lakes and waterways, and encourage public awareness.

Stormwater Services partnered with MC Parks and Recreation to host the Jackson Creek Park Clean up event on Saturday April 30, 2022. Prior to the event, a calendar posting was made to Townplanner.com. 12 participants removed litter/debris from within Jackson Creek and along the banks as well as limited spraying for invasive plant species by licensed applicators. Immediately following the event, 7 bags of trash and larger debris was taken to the MC Solid Waste District Recycling and Disposal site at 400 W Dillman Road.

MCM 2 Activity 4

Support the County's Adopt-a-Stream Program

11 volunteers virtually attended **Adopt A Stream** training hosted by the Monroe County Parks and Recreation and Bloomington Parks and Recreation Department on March 29, 2022.

Monroe County Parks and Recreation has two stream segments available for AAS volunteers: Flatwoods Park (McCormicks Creek flows through it) and Jackson Creek Park.

MCM 2 Activity 5

Host septic system workshops to educate the County about proper installation and maintenance.

Shian'ah Cox with the MC Health Department and Maggie Sullivan with Friends of Lake Monroe co-hosted a **Virtual Septic System Maintenance Workshop** on March 31, 2022. During the workshop, 31 participants received training on the importance of maintaining a properly operating septic system, how a septic system operates, dos and don'ts of operation and information on the extremely popular **Friends of Lake Monroe Septic Maintenance Cost-share Program**.

MCM 2 Activity 6

Update the Storm Drain Marking Program and use Cartegraph to update marking information for drains.

Cartegraph, Stormwater Services asset management system has a field to track storm drains marked with a “Dump No Waste, Drains to Stream” or similar message. During 2022, no storm drains were marked, but the outline to for Summer 2023 storm drain marking program was started.

MCM 2 Activity 7

Provide funding to the SWCD for implementing cost-share projects on private property to reduce non-point source pollution.

The SWCD Grant program continues to receive \$35,000.00 annually from Stormwater Services. The money is distributed to the MCSWCD District Manager to financially assist Monroe County residents in property issues concerning stormwater. The MOU is reviewed annually, and the MCSWCD makes presentations to the Stormwater Management Board as requested to discuss the amount of grants issued, program expenditures and benefits.

MCSWCD reported 9 grant applicants approved and reimbursed during 2022. Three additional approved applicants submitted during 2021 and were reimbursed in 2022. The entire \$35,000 was encumbered to grant applicants, however grant money distributed to approved project applicants may not occur within the same calendar year.

Approved projects were designed to reduce non-point sources of pollution by managing how stormwater flows on private property. Specifically, improvement projects resulted in water quality benefits such as erosion reduction, standing water removal, slowing down stormwater flow and incorporating design elements (when feasible) such as rain gardens and the use of native vegetation. Some examples of design elements in 3 separate projects:

- 22-8, collected stormwater between two residential properties via drains and buried piping surrounded by gravel and discharged it to a storm drain maintained by the Highway Department.
- 22-10, design collected stormwater from residential downspouts and discharged it to a rain garden.
- 22-14, native vegetation planted adjacent to a drainage easement with bare soil prior to project implementation.

MOU between Stormwater Services and MC SWCD is available in **Appendix D**.

b) Describe implementation problems encountered and changes made due to ineffectiveness or infeasibility during this reporting period.

The 12 participants for the April 30 2022 Jackson Clean-up event were comprised of Stormwater Services staff and City of Bloomington Utilities MS4 staff. To increase public participation moving forward, advertising will be utilized via social media, our website and limited use of flyers (electronic and hard copy) distributed to organizations with an interest in protecting stormwater quality.

c) Describe program BMPs that went beyond those identified in the SWQMP.

Friends of Lake Monroe's **Septic System Maintenance Cost-Share Program** was available from March 31-July 31 2022 and provided reimbursement up to 50% of the total cost of pumping a septic system and/or installing a riser with a limit of \$100 for either service or \$150 for both services per homesite. Through septic system cost share program, Friends of Lake Monroe reimbursed 78 households for pumping their septic tank and 3 of the households installed a riser. Our Stormwater Management Board approved \$18,598.50 in support of Friends of Lake Monroe through a signed MOU in November of 2022.

FLM's **Septic System Maintenance Cost-Share Program** website page also included:

- importance of maintaining a septic system
- septic tank diagram
- dos and don'ts for septic system operation
- FAQ section on septic systems

d) Identify storm water BMPs installed or initiated for this MCM during this reporting period.

The **Lower Salt Creek Watershed Plan Postcard** project was initiated during the reporting period.

e) Describe program implementation partnerships and explain successes and barriers during this reporting period.

Stormwater Services has partnered with the MC Soil and Water Conservation District to provide a cost-share program wherein private property owners receive partial reimbursement after an approved drainage improvement project has been completed.

The partnership is successful in that it provides financial assistance and/or technical advice to homeowners to reduce erosion, non-point source pollution and improve drainage. The primary barrier with the partnership is getting the word out and for potential property owners to complete the application process.

Through approval from the Stormwater Management Board, Stormwater Services partnered with Friends of Lake Monroe in providing \$18,598.50 in financial support prior to FLM receiving 319 grant funding approval.

f) Other:

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

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

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

MCM 3 Activity 1

Complete dry weather screening of all outfalls to detect illicit discharges, illegal connections, assess outfall conditions, detect observable water quality concerns.

During 2022, dry weather outfall screenings occurred when there was a minimum of 72 hours with less than 0.1 inches of rainfall. 69 Previously inspected outfalls (documented in our asset tracking software, Cartegraph) were inspected first. To screen for illicit discharges, areas of the County where outfalls were not yet documented were inspected next and an additional 38 outfalls were entered into Cartegraph for a total of 107. Of the 107 outfalls screened during 2022, 76 are maintained by Monroe County Highway Department while 31 were private. In addition to the 31 privately maintained outfalls, 9 private outfalls were screened adjacent to a Rule 6 facility discharging into a tributary of Buck Creek, see MCM 3 Activity 3 below.

No illicit discharges were detected during the dry weather screenings. No unusual color, unusual odor, or pollutants were observed at any of the outfalls. Outfall number (Cartegraph asset number), location data, outfall description and diameter of pipe was entered into Cartegraph for all 107 outfalls, see **Appendix E**.

1 outfall was removed from Cartegraph during inspections because it was not discharging close enough to a water body to convey pollutants and are therefore not considered an outfall.

The main watershed (10-digit HUC) and sub watershed (12-digit HUC) of each outfall was also recorded. The Salt Creek and Beanblossom Creek watersheds have the most outfalls with 53 and 44 outfalls, respectively. The sub watershed with the most outfalls screened is May Creek Clear Creek with 30 outfalls.

MCM 3 Activity 2

Update stormwater infrastructure in Cartegraph

Stormwater infrastructure such as storm drains, connected storm pipes and outlets were added to Cartegraph for the subdivisions of Wellston Estates (4/1/2022), Pinnacle Business Park (4/12/2022), Gentry East (7/28 and 11/15/2022) and Bristol Manor, (11/17/2022). Data for the stormwater infrastructure such as location, material, shape, connected infrastructure and the assignment of an asset identification number is maintained within Cartegraph.

MCM 3 Activity 3

Track locations of Rule 6 facilities, fueling stations, and other sites with high potential for stormwater pollution

Rule 6 facilities maintaining a NPDES permit during 2022 are below. Maps of Retail Gas Stations and Rule 6 Facilities within MC MS4 are available in **Appendix F**.

Nine private outfalls were screened adjacent to Bloomington Auto Parts, 7650 N Wayport Road on 11 23 2022. During the 11 23 2022 screening of the 9 private outfalls, no illicit discharge conditions were observed.

NPDES ID	Permit Name	Expiration Date	Local Address
INRM00087	Bloomington Bin	9/16/2024	5210 W Vernal Pike Bloomington, IN
INRM00360	Printpack Inc	3/28/2026	2121 N Angelina Lane Bloomington, IN
INRM01328	Bloomington Auto Parts	7/10/2025	7650 N Wayport Rd Bloomington, IN
INRM02288	Cook Property Incorporated	11/26/2022	301 N Curry Pike Bloomington, IN
INRM02293	Berry Global, Inc.	12/10/2022	4100 W Profile Pkwy Bloomington, IN
INRM02618	BG Hoadley Quarries Inc	9/29/2024	3211 W Arlington Rd Bloomington, IN
INRM02302	Big Creek LLC	12/28/2022	8636 W Mount Carmel Rd, Gosport, IN
INRM02904	Rumpke MC Resource Recovery	03/17/2027	5147 S Commercial St Bloomington, IN
INRM01182	Hoosier Transfer Station	9/12/2024	6660 S Old SR 37, Bloomington, IN
INRM02840	Ingram Road Quarry LLC	2/10/2027	303 E Ingram Rd, Springville, IN
INRM02674	Dave O'Mara Contractors Inc	7/01/2025	1100 Oard Rd, Bloomington, IN
INRM00165	Monroe County Airport	06/21/2024	972 S Kirby Rd, Bloomington, IN

MCM 3 Activity 4

Contract out County-wide professional water quality monitoring. End of permit cycle, no updates during 2022.

Contracting of water quality monitoring will occur near the end of our permit cycle and no activity occurred during 2022.

MCM 3 Activity 5

Maintain an Illicit Discharge Detection and Elimination Plan with SOPs.

A SOP for eliminating illicit discharges is maintained within the Stormwater Services MCM 3 computer network drive. No updates to the IDDE SOP occurred during 2022.

MCM 3 Activity 6

Promote the state's Clean Marina Program.

During 2022, *Two Herons Marina* became designated as a *Clean Marina* through IDEM. After obtaining the Clean Marina designation, Adam Rickert spoke to a representative of Two Herons Marina and discussed ideas on how to promote BMPs typically found at designated Clean Marinas and used by conscientious boaters. During the conversation, the Two Herons representative suggested Adam contact Karen Tehila with IDEM's Clean Marina and Clean Boater Pledge programs.

After further reflection, Adam realized boaters primarily utilizing DNR boat ramps and marinas not currently designated as a Clean Marina may not be aware of the Clean Boater Pledge or Clean Marina program. To increase participation and awareness of both programs, Adam worked with Karen and an IDEM graphic artist to develop a *Clean Boater Pledge* sign. The sign is expected to be available for installation by May 2023 and will be posted at DNR (Lake Monroe) boat ramp parking lots, offered to private marinas and businesses offering marine services. Karen indicated new Clean Boater Pledge participants can be tracked by county, thus Stormwater Services staff will be interested in reviewing post Clean Boater Pledge sign installation participation rates amongst southern Indiana county residents.

b) Describe implementation problems or challenges encountered, particularly as it relates to mapping and screening of outfalls during this reporting period.

Prior to outfall screenings completed in 2022, the 2017 inspection forms and Cartegraph were reviewed to determine the location of previously documented outfalls. Mapping and screening of outfalls was primarily conducted by student interns in June of 2017 and minimal GPS measurements were recorded on the outfall inspection form. No additional data collection of outfalls or mapping has been conducted since the 2017 reporting period. During the 2022 outfall inspections, GPS data was recorded on the inspection sheet and within Cartegraph.

c) Identify changes made to the IDDE Plan during this reporting period if applicable.

The primary change made to the IDDE Plan during 2022 was to coordinate with the MC Health Department Environmental Health/Wastewater Section and City of Bloomington Utilities to ensure reports of potential and confirmed illicit discharges were distributed and addressed appropriately amongst the three departments. During 2022, Stormwater Services staff met with MC Health Department staff on May 4th and met with representatives from both departments on December 5th to discuss ways and means to improve coordination.

d) Identify updates or revisions to IDDE ordinance or other regulatory mechanism made during this reporting period.

No updates or revisions to the IDDE ordinance were completed during 2022.

f) Other:

PART H: CONSTRUCTION SITE STORM WATER RUN-OFF CONTROL - MINIMUM CONTROL MEASURE

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

a) Identify progress made towards development and implementation of each BMP for this MCM including timetables and measurable goals during this reporting period.

MCM 4 Activity 1

Hold annual Monroe County Contractors Workshop

The annual Contractors Workshop was held at Ivy Tech in Bloomington on November 16, 2022. Presentations from IDEM, City of Bloomington Utilities, EcoLogic and MC Stormwater Program representatives informed participants about erosion and sediment control basics, native plants and green infrastructure, 401/404 permitting, IDDE and construction site materials management, Monroe County critical drainage areas, and an update proposed changes to the Monroe County Technical Standards Manual and Drainage Design. A panel session on local and state regulatory updates and proposed updates was also held. There were forty-five participants. Presentations from the 2022 workshop, as well as presentations from previous workshops are available on our Stormwater Program website.

MCM 4 Activity 2
Develop SOP for SWPPP Reviews

A SOP for SWPPP reviews is maintained and updated as needed. The most recent update was performed in December 2022, with additional updates and/or review guidance documents in progress that are specific to project type (i.e. large commercial, large subdivision, small commercial, single-family/minor subdivision).

Additionally, SWPPP development guidance documents are used to help train Stormwater Services staff and are provided to prospective projects.

MCM 4 Activity 3
Perform quarterly inspection of all active sites and create a prioritization system for more frequent inspections.

An inspection tracker, ***MCM 4 Construction Stormwater Tracker*** is maintained to track inspections at all active sites. During 2022, 135 construction site inspections were recorded. Additional inspections to non-CSGP sites were also performed.

Additionally, an active sites tracker is used for GIS map-making and contains permit information, compliance status, stage of development, disturbed area, whether the project is within a Critical Watershed or not, and assigns an inspection prioritization on a scale of one to four. High priority projects are ranked one and are based on the nature and extent of construction activity, topography, threat to degradation of water quality, characteristics of soils on site, and other pertinent project information. Low priority projects are ranked four.

MCM 4 Activity 4
Send two (2) emails/letters per year as reminders to active sites.

In January and February 2022, Erica Penna sent an email to active sites regarding the change from Rule 5 to the Construction Stormwater General Permit, with instructions and deadline to file continuation of coverage through IDEM's Regulatory ePortal. This included a highlight of some of the new performance standards that would be expected on active sites.

During October 2022, Erica Penna sent a Construction Newsletter to contractors with active sites, which emphasized fall and winter stabilization preparation and implementation. See **Appendix H**.

b) Describe program implementation partnerships and explain successes and barriers during this reporting period.

Maintaining partnerships with other MS4s (City of Bloomington) to provide the Contractors Workshop benefitted both MS4s as well as designers, consultants and engineers working in our area.

The transition from Rule 5 to CSGP presented challenges for local contractors working to submit for continuation of coverage. Several required assistance navigating the IDEM ePortal. Additionally, updates to SWPPP templates and SWPPP review documents has been slow and is continuing into 2023.

OpenGov is used by MC government to retain permit application information, site plans, SWPPP documents, issue permits, and create/send inspection summaries. Via the OpenGov public facing portal, individuals and companies engaging in land development create an account to submit permit applications and site documents. OpenGov sometime presents a technological hurdle for public facing users as they learn and become familiar with submitting electronic documents. For users of the OpenGov public facing portal requesting assistance, Stormwater Services staff provides guidance using a computer at our front reception area.

c) Identify the number of construction sites permitted during this reporting period and identify the number and type of enforcement actions taken against construction site operators during the same period.

At the conclusion of 2022, Stormwater Services was tracking 54 active construction sites, 25 sites that were terminated, 7 sites on hold and 7 inactive sites for a total of 93 permitted sites during the reporting period.

1 permitted site was referred for enforcement during 2022 for grading without a permit.

d) Identify the number and types of training opportunities that were provided to contractors, developers, and builders during this permit period.

The annual Contractors Workshop, a one-day event held at Ivy Tech Bloomington, was offered to contractors, developers and builders on November 16, 2022.

e) MS4 personnel responsible for plan review, inspection, and enforcement of construction activities shall receive, at a minimum, annual training addressing appropriate control measures, inspection protocol, and enforcement procedures. Identify training provided to MS4 personnel responsible for these activities during this reporting period.

Kelsey Thetonia

<u>Training</u>	<u>Training Type</u>	<u>Date(s)</u>	<u>PDH</u>
Indiana LTAP 2022 SW Conference	Conference	2/10/2022	6
LTAP Drainage training	Onsite training	3/31/2022	3
Designing Successful SW Facilities With Maintenance & Enforcement in Mind	Webinar	4/15/2022	4
Annual Indiana MS4 Meeting	Conference	5/10/2022	5
INAFSM	Conference	9/14/2022	11
Purdue University, Computational Watershed Hydrology	Online course	9/20/2022	3 credits

Erica Penna

<u>Training</u>	<u>Training Type</u>	<u>Date(s)</u>	<u>PDH</u>
Indiana LTAP 2022 SW Conference	Conference	2/10/2022	6
Annual Indiana MS4 Meeting	Conference	5/10/2022	5
INAFSM	Conference	9/14/2022	11

Adam Rickert

<u>Training</u>	<u>Training Type</u>	<u>Date(s)</u>	<u>PDH</u>
Indiana LTAP 2022 SW Conference	Conference	2/10/2022	6
LTAP Drainage training	Onsite training	3/31/2022	3
Annual Indiana MS4 Meeting	Conference	5/10/2022	5
INAFSM	Conference	9/14/2022	11

f) Identify updates or revisions to the storm water construction ordinance or other regulatory mechanism made during this reporting period.

Draft ordinance updates and revisions to meet new CSGP and MS4 permitting requirements are in progress and are expected to be enacted in 2023.

g) Other:

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

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

a) Identify progress made towards development and implementation of each

MCM 5 Activity 1

Develop and implement a post-construction inspection program.

In 2022, the post-construction inspection program was better defined through the development of post-construction inspection form templates, post-construction inspection guides for staff and active projects, and the implementation of the stormwater BMP Inventory (see MCM 5 Activity 2 below). A final stormwater inspection step is now required on all applicable county-issued permits, during which time the permanent stormwater facilities are added to the BMP Inventory and stormwater infrastructure is added to Cartegraph asset management system.

MCM 5 Activity 2
Complete BMP Inventory

In 2022, Erica and Stormwater Fellows/Interns implemented efforts to inventory post-construction stormwater facilities following planning and design efforts that occurred in 2021. The GIS application Survey123 was used to collect information in the field and consisted of observations on maintenance needs to inflows/outflows, basin embankment condition, pond bottom condition, and vegetation impacts. In addition, an overall condition rating was given, property owner information was populated, and latitude and longitude coordinates for the BMP are recorded.

The MS4 General Permit sets a goal of inventorying 250 post-construction measures during the permit cycle (as found in section 4.6(f)). This goal was met through the implementation of the BMP Inventory, though the inventory is not fully completed. Efforts to continue inventorying post-construction measures will continue in 2023. Information gathered during the 2022 BMP Inventory efforts is providing insight into the maintenance needs of existing post-construction measures and will provide direction for future programming efforts.

During 2022, 259 BMPs were inspected and added to the Stormwater Program BMP Inventory via Survey123. This process began with evaluating each Township by Section using aerial imagery to determine potential private BMPs, as well as using historical and current building and planning department permits issued. "Hotspot" areas containing BMPs were identified and field inspected and were added to the inventory using Survey123. As of December 2022, approximately 50% of Township Sections have been inventoried.

63% (164) of the 259 BMPs inspected during 2022 were rated "good" for maintenance, 28% (72) rated as "Fair" and 9% (23) were rated as "poor." Detention ponds were represented the most in the inventory with 56% (146) followed by retention ponds at 16% (42) and vegetated swales at 15% or 40. Less frequently observed BMPs represented in the 2022 inventory included rain gardens at 4% (11), 4 bioretention basins (1.5%) 2 concrete ditches (<1%) and 1 bioretention filter.

Ratings for Detention Ponds, Retention Ponds, Vegetated Swales and Rain Gardens were calculated individually and compared to the ratings for all BMP types:

<u>BMP Type</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>
All BMP Types	63%	28%	9%
Detention Ponds (146)	64% (93)	29% (43)	7% (10)
Retention Ponds (42)	67% (28)	26% (11)	7% (3)
Vegetated Swales (40)	70% (28)	28% (11)	<1% (1)
Rain Gardens (11)	91% (10)	9% (1)	

The location of BMPs by Township was tallied with 6 Townships represented in the 2022 Inventory:

<u>Township</u>	<u>Number of BMPs</u>	<u>Percentage of BMPs</u>
Perry	90	35%
Richland	64	25%
Van Buren	51	20%
Bloomington	36	14%
Clear Creek	14	5%
Washington	4	1%

An Indiana University Graduate Student Fellow, Marie Dishian, has developed an internal interactive BMP inventory dashboard using the data exported from Survey123. The dashboard, powered by an Excel sheet, has three main processes:

- cleans the data into workable and consistent units.
- PivotTables connected to the cleaned dataset calculate relevant metrics such as number of detention ponds per township, percentage of detention ponds with a “good” rating, or number of rain gardens within the Beanblossom Creek watershed, among others.
- a visual “dashboard” takes the data from the PivotTables and transforms it into interactive graphs, tables, and visuals.

The internal dashboard offers the stormwater team an automated process for easily visualizing and analyzing BMP data and will assist with decision-making regarding future maintenance support needs and potential problem areas. A public-facing dashboard is under consideration.

Appendix H shows a map of the 2022 BMP inventory with Critical Drainage Areas and overall BMP rating.

MCM 5 Activity 3

Provide two (2) HOA presentations per year

In June of 2022, Stormwater Services staff Erica Penna and Adam Rickert met with 9 residents in person within the Highland Park Estates neighborhood to listen to their drainage concerns and provide stormwater education. At the time of the meeting, Highland Park Estates had approximately 5 lots not fully developed out of 110 lots. Highland Park Estates had not been turned over to the residents by the builder to form a HOA, however the residents had organized as a group of concerned residents and reached out to Monroe County Soil and Water Conservation District and Stormwater Services.

A second, separate HOA presentation was not provided by Stormwater Program staff during 2022, but direct communication with additional HOAs was provided with intention by the HOAs to schedule a presentation stormwater-specific HOA meeting in 2023.

MCM 5 Activity 4

Adopt new post-construction ordinance.

The draft Stormwater Management Ordinance and Technical Standards Manual are still in progress and are anticipated to be adopted in 2023. At our 2022 Contractors Workshop, Kerry Daily from Christopher Burke Engineering gave a presentation aimed at our local civil engineering firms that reviewed the updates to our ordinance, including major changes to our post-construction design standards.

b) Describe implementation problems encountered and changes due to ineffectiveness or infeasibility during this reporting period.

Establishing contact with HOAs to address stormwater concerns has been a challenge. When Erica Penna has responded to a homeowner’s drainage complaint related to a detention basin or drainage easement, she asks if they were part of an HOA so she can address the issue with more residents that might be impacted. She has been able to educate residents on HOA responsibilities and give them more insight into what stormwater features were found in their area, so they are able to prevent drainage issues in the future.

When Erica has reviewed roadway acceptance applications in subdivisions, she asks about HOA contact information to provide information about stormwater facility maintenance requirements.

We are developing a plan to improve how we track HOA contact information and perform HOA outreach.

c) Describe program implementation partnerships and explain successes and barriers.

The Monroe County GIS Coordinator has been heavily involved with development and maintenance of the post-construction BMP inventory web application using Survey123. We have also relied on historical site plan information from the Monroe County Planning and Building Departments.

Although initiating communication with HOAs has been a challenge, HOA's that reach out to us first have led to development of positive relationships. Of note, one HOA we've worked with is planning to do native vegetation plantings in their detention basins, replacing existing grass.

d) MS4 area personnel responsible for implementation of the post-construction minimum control measure shall receive, at a minimum, annual training. Identify training provided for this minimum control measure during this reporting period.

See MCM 4 Section E.

e) Identify updates or revisions to the post-construction storm water ordinance or other regulatory mechanism made during this reporting period.

See MCM 5 Activity 4. The draft Stormwater Management Ordinance and Technical Standards Manual are still in progress and are anticipated to be adopted in 2023. At our 2022 Contractors Workshop, Kerry Daily from Christopher Burke Engineering gave a presentation aimed at our local civil engineering firms that reviewed the updates to our ordinance, including major changes to our post-construction design standards.

f) Other:

PART J: MUNICIPAL OPERATIONS POLLUTION PREVENTION AND GOOD HOUSEKEEPING - MINIMUM CONTROL MEASURE

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

a) Identify progress made towards development and implementation of each BMP in the SWQMP including timetables and measurable goals during this reporting period.

MCM 6 Activity 1

Maintain SWPPPs for County-owned facilities.

SWPPPs are maintained for the Highway Garage and Karst Farm Park Maintenance Garage. Updates were completed for the Karst Farm Park SWPPP on March 23 2022 and no updates to the Highway Garage SWPPP occurred during 2022.

MCM 6 Activity 2

Provide training to County employees who work at facilities with active SWPPPs

On May 12 2022, MC Highway Garage employees received ***Stormwater Pollution Prevention Plan*** training. A sign-in sheet, pre and post-test were distributed to the attendees.

Pre and post-test questions and format for the Highway Garage training were identical. Average score amongst the 30 completed, 8 question pre-test was 39% while the average score amongst the 32 attendees submitting the post-test was 77%.

On May 25 2022, Karst Farm Park maintenance facility employees received ***Stormwater Pollution Prevention Plan*** training specific to their facility. A sign-in sheet and post-test were distributed to the attendees. The average score amongst the 6 attendees completing the post test was 92.6%. During the Karst Farm Park garage training, part of the presentation covered potential spills reaching sinkholes within and adjacent to Karst Farm Park.

MCM 6 Activity 3

Provide training for County Highway employees.

Kelsey Thetonia arranged for an on-site LTAP Drainage training for the Highway Department Stormwater crew on March 3 2022.

MCM 6 Activity 4

Communicate stormwater education topics to all County employees.

On January 19, 2023, Monroe County Technical Services Department sent out an email on behalf of the Stormwater Program to all Monroe County employees. The email encouraged MC employees to pick up a copy of the 2023 Stormwater Calendar (a stormwater educational marvel in of itself) and to report potential impairments to water quality and/or flooding issues to the Stormwater Program while they are out and about within the county.

Appendices

Appendix A:	Retail Gas Station Employee Survey Results and Educational Poster	Pg 23
Appendix B:	Facebook Statistics during 2022	Pg 25
Appendix C:	2022 Monroe County Fair Display	Pg 27
Appendix D:	MOU between Stormwater Services and MC SWCD	Pg 28
Appendix E:	Map of Outfalls Screened in 2022	Pg 30
Appendix F:	Maps of Retail Gas Stations and Rule 6 Facilities within Monroe County MS4	Pg 31
Appendix G:	Fall Compliance Newsletter	Pg 33
Appendix H:	Map of 2022 BMP Inventory	Pg 34



Monroe County Stormwater Services

Located at Monroe County Highway Department:
501 N. Morton Street, Suite 216, Bloomington, IN 47404

Phone: (812) 349-2565

Fax: (812) 349-2959

www.co.monroe.in.us

2022 Retail Gas Station Stormwater Educational Inspection Summary

14 retail gas stations within Monroe County’s Municipal Separate Stormwater Sewer System (MS4) jurisdiction were surveyed during December 2022:

Emergency pump shut off button accessible? Yes: 13 (93%) No: 1 (7%)

How many times a day is trash/litter picked up from all areas of the property?

Four or more: 2 Three or more: 1 Two to Three: 3 Two: 2 One: 5 Zero: 1

Average: 2 times a day.

When trash/litter is picked up from all areas of the property, does the employee record the time/date/employee initials on a paper and/or electronic document?

Yes: 4 (29%) No: 10 (71%)

Is a written document available with instructions on how to respond to a fuel spill?

Yes: 4 (29%) No: 10 (71%)

Are overfills and spills of fuel documented on a paper and/or electronic document?

Yes: 4 (29%) No: 10 (71%)

Is a spill clean-up supply kit (dry absorbent, overpack drum, pads) available?

Yes: 9 (64%) No: 5 (36%)

If a spill clean-up supply kit is available, is it maintained in one location?

Yes: 9 (64%) No: 5 (36%)

BEST PRACTICES: STORMWATER POLLUTION PREVENTION FOR GASOLINE STATIONS

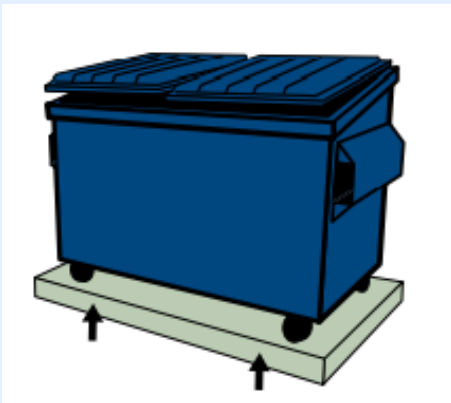
At gas stations, gas, oil, trash, & other materials can leak, spill, or otherwise end up on the ground to be carried into our waterways.

As a gas station owner, operator, or worker, ***you have an important role*** in maintaining the quality of Monroe County's waterways for future Hoosiers.

Fact: used oil from one oil change can contaminate approximately one million gallons of fresh water – a years' supply for 50 people.

Fuel Areas

- Clean spills using dry cleanup methods. Don't use water to clean up chemicals & debris on pavement or rely on rainwater.
- Keep spill kits available for cleaning up spills and leaks.
- Provide a roof over fuel pumps to prevent storm water intrusion.
- Post signage prohibiting "topping off".
- Prohibit changing oil/antifreeze or performing vehicle repairs on the property.
- Use stormwater infrastructure and/or best management practices designed to catch spills, trash and sediment before it leaves the property.
- Ensure installed stormwater infrastructure is inspected, cleaned, and maintained regularly.



Dumpster Areas

- Trash should be emptied regularly to prevent overflow.
- Make sure trash receptacles are placed in a high location, located in covered areas (under a roof or awning), and have water-tight lids that are kept closed.
- Sweep and inspect both dumpster and parking areas regularly.
- Don't dispose of gasoline, antifreeze, or other hazardous liquids in trash dumpsters, sinks, toilets, floor drains, or storm drains. Instead, ensure hazardous waste is disposed of through an environmental contractor obtaining a hazardous waste permit.
- Berms and graded areas should be maintained around trash areas to avoid stormwater running through the dumpster area.

Good Housekeeping

Train all employees upon hiring and at least annually thereafter on:

- The impact gasoline outlets have on stormwater pollution
- General pollution prevention measures
- Proper cleanup of leaked or spilled materials & trash disposal
- Completion of a cleaning log and to check and clean all areas of the property at least daily

Post for employees, in a visible location:

- Location of spill absorbent kit
- Location of emergency pump shut-off
- Emergency phone numbers and contacts



Appendix B: Facebook Post Statistics for 2022

Description	Publish time	Impressions	People Reached	Engagements	Shares	Likes	Comments	Total clicks	Other Clicks	Link Clicks	Photo Views
	1/1/2022 7:01	39	34	3	0	3	0	0			
Happy #MLKDay! This day is observed each year on	1/17/2022 10:01	48	42	3	0	3	0	1	1		
The new year always brings new resolutions, new goals	1/19/2022 7:01	23	18	0	0	0	0	0			
Lawmakers are convening at the statehouse for the	1/25/2022 11:01	256	231	9	2	7	0	7	1		6
If you're anything like us, despite the cold temps you	1/31/2022 9:01	66	60	3	0	3	0	3	2	1	
!! Attention all HOAs & Business Owners !! Now is ar	1/31/2022 17:01	44	37	2	0	2	0	3	3		
As the freezing temperatures and snow continue to	2/7/2022 7:02	44	39	1	0	1	0	0			
Proper tire disposal is important for stormwater qu	2/8/2022 7:02	39	33	2	1	1	0	1			1
♥ Roses are red,♥Violets are blue,♥We love c	2/14/2022 4:02	256	241	11	1	10	0	2	1		1
Construction professionals and sediment pollution :	2/21/2022 3:02	34	29	2	0	2	0	0			
Remember: only rain down the stormdrain! Househ	2/23/2022 6:02	79	71	4	1	3	0	2		1	1
Did you realize that your pollution can increase the i	2/28/2022 7:02	27	21	0	0	0	0	0			
Did someone say "clean stormdrains"? Consider us i	3/1/2022 13:03	41	33	1	0	1	0	2	1		1
Sometimes the greatest things in life aren't recogniz	3/7/2022 5:03	88	79	4	0	4	0	1	1		
Shout out to City of Bloomington, IN - Utilities crew:	3/7/2022 9:03	63	58	1	0	1	0	0			
Good news for our local watershed, and for septic sy	3/14/2022 10:03	437	420	15	5	10	0	19	17	2	
👤 Internship Alert! 👤 We are seeking TWO paid sto	3/18/2022 8:03	240	215	6	1	5	0	3	2	1	
We are excited to partner with Monroe County Park	3/22/2022 5:03	46	40	4	0	4	0	2		2	
While disposable masks and gloves have been integ	3/22/2022 10:03	30	25	2	0	2	0	0			
Yesterday was #WorldWaterDay2022 👤 We were a	3/23/2022 9:03	34	27	2	0	2	0	0			
Are you septic smart? Septic systems in need of rep.	3/23/2022 11:03	45	38	3	0	3	0	1		1	
All this rain lately is making us think about...you gue	3/28/2022 3:03	51	42	1	0	1	0	0			
Last call! Applications are due TODAY by 5:00pm fo	3/28/2022 7:03	34	27	0	0	0	0	0			
Happening now! Monroe County Master Gardener .	4/2/2022 6:04	71	62	4	0	4	0	10	2	8	
We had a great time chatting about watersheds, citi	4/2/2022 17:04	84	74	5	0	5	0	5	1	4	
Did you know that Indiana is frequently ranked amc	4/4/2022 7:04	30	24	0	0	0	0	0			
	4/11/2022 11:04	23	17	0	0	0	0	1	1		
April 13!	4/12/2022 13:04	117	108	5	0	5	0	11	5	6	
This organization, Matter of Trust, collects hair scrap	4/15/2022 7:04	44	36	1	0	1	0	2	1		1
While Earth Day is today, April 22nd, we're thinking	4/22/2022 5:04	28	21	0	0	0	0	0			
Don't forget!! ☺👤	4/27/2022 7:04	36	29	3	2	1	0	8	3		
Jackson Creek clean up was a success! Thank you sc	5/5/2022 8:05	131	119	7	0	7	0	18	7	11	
Stormwater gone viral! This video about stormwate	5/9/2022 5:05	130	119	3	1	2	0	4			4
It is Friday the 13th! Hopefully you're not unlucky er	5/13/2022 7:05	53	41	1	0	1	0	1			1
May is American Wetland Month. Let's celebrate! 🌿	5/18/2022 16:05	196	173	8	2	6	0	3	1	2	
Today is World Biodiversity Day 🌿🌿 Biodiversi	5/22/2022 9:05	171	139	13	2	11	0	4	3	1	
Public Notice Posted Unincorporated Monroe Count	5/26/2022 4:05	47	35	1	0	1	0	3	1		2
Great reminder from our friends at City of Bloomin	5/27/2022 19:05	57	45	2	0	2	0	0			
Happy National Trails Day! Monroe County has a tor	6/4/2022 7:06	48	42	2	0	2	0	2	1	1	
Happy World Environment Day! 🌿🌿 This day is	6/5/2022 7:06	25	18	0	0	0	0	0			
Happy World Oceans Day! 🌊🌊 We love our oce:	6/8/2022 5:06	52	41	2	0	2	0	0			
Monroe County has an abundance of karst features,	6/9/2022 5:06	95	85	4	0	4	0	5	3	1	1
Curious about fun ways to help manage stormwate	6/22/2022 7:06	256	239	5	1	4	0	5	5		
rides, and your favorite... our booth! We will be	6/24/2022 6:06	47	37	1	0	1	0	1	1		
Bloomington, In! We're here all week with	6/27/2022 13:06	133	119	5	0	5	0	16	10	6	
Happy Independence weekend!❤️❤️❤️It's time f	7/1/2022 7:07	49	40	3	0	3	0	1	1		
Howdy fellow green thumbs! We here at Stormwate	7/7/2022 7:07	47	37	2	0	2	0	1	1		
Save the date!	7/7/2022 12:07	50	40	2	0	2	0	1		1	

Description	Publish time	Impressions	People Reached	Engagements	Shares	Likes	Comments	Total clicks	Other Clicks	Link Clicks	Photo Views
July is Lakes Appreciation Month! Inspired by the North American Lake Manager	7/8/2022 6:07	762	658	39	4	32	3	16	12		4
It's week two of Lakes Appreciation Month! Today we want to shine some light c	7/13/2022 7:07	112	95	9	1	8	0	6	5		1
With summer in full swing, here's some tips from the stormwater crew on how t	7/18/2022 7:07	58	52	4	0	4	0	2	2		
We're back for week three of Lakes Appreciation Month. Today we are featuring	7/20/2022 7:07	48	42	2	0	2	0	0			
We're back again to celebrate the final week of Lakes Appreciation Month, and t	7/27/2022 7:07	113	104	8	0	3	5	7	7		
Thanks for the positive feedback on our Lakes Appreciation Month posts! We w	7/28/2022 11:07	76	70	4	1	3	0	5	2		3
Letting pets go when you can no longer care for them can be a tough prospect. I	8/1/2022 7:08	50	43	4	0	4	0	1	1		
Illicit discharge might not be a term you've heard of before, but for Stormwater	8/3/2022 7:08	58	51	4	0	4	0	0			
Over the last few weeks the stormwater crew has gotten to see a lot of cool crea	8/8/2022 7:08	374	348	11	1	10	0	12	1		11
Stormwater fees: We don't like paying them, but we love all of the benefits they	8/10/2022 7:08	26	17	0	0	0	0	0			
Last week we said goodbye to and thanked our summer interns for a job well do	8/15/2022 8:08	196	184	18	1	16	1	24	8		16
Did you know that the salinity of the ocean's surface partially determines how m	8/22/2022 8:08	76	69	7	0	6	1	4	4		
You likely didn't know what "stormwater" meant until later in life, right? Until a	8/26/2022 8:08	46	36	2	0	2	0	2	1		1
Ever wonder which plastic you can and can't recycle to our local Monroe County	8/29/2022 6:08	38	33	2	0	2	0	0			
Fishing is a beloved pastime of many Hoosiers, with 663,000 residents consideri	9/2/2022 7:09	18	14	1	0	1	0	0			
Just a reminder than our office will be closed today for Labor Day! Have a safe a	9/5/2022 6:09	37	30	1	0	1	0	0			
👋 Hello Monroe County community! 👋 We have a special request for you. Th	9/6/2022 16:09	266	250	9	2	6	1	46	11	35	
Grads & undergrads: 🎓 📖	9/7/2022 7:09	32	25	1	0	1	0	0			
Beginning each spring, you might see our crew out and about inspecting your loc	9/9/2022 12:09	55	48	4	0	4	0	0			
Stormwater meets Sunday Night Football! 🏈 🏈 When the Bears and 49ers open	9/12/2022 6:09	278	258	13	1	11	1	6	6		
September is National Preparedness Month! 100 year rain events are rain event:	9/16/2022 13:09	34	29	2	0	2	0	0			
Algae blooms can happen as a result of runoff from sewage treatment plants. 🌊	9/19/2022 6:09	40	32	3	0	3	0	1	1		
Welcome to our new series, Stormwater Staff Fridays! We're going to spend the	9/23/2022 13:09	72	62	5	0	5	0	10	6		4
We can't wait to see you at Bugfest! 🐛 🐛 🐛 If you haven't been, Bugfest is	9/26/2022 6:09	50	40	6	0	3	3	7	2		
See you in TWO DAYS for Bug Fest 2022 🐛	9/29/2022 11:09	53	43	1	0	1	0	0			
For round 2 of Stormwater Staff Fridays, we're highlighting our Stormwater Inspi	9/30/2022 13:09	429	409	56	1	52	3	91	30		61
Interested in the Lower Salt Creek Project? 🌊 🌊 This afternoon,	10/3/2022 5:10	38	32	3	1	2	0	0			
For the third Stormwater Staff Friday, we'd like to present	10/7/2022 13:10	67	57	7	0	7	0	3	2	1	
Get excited! The Future Southwest Library Branch had their underground storm	10/10/2022 7:10	211	195	15	1	14	0	5	5		
Join us this Thursday at 10:00 AM at Two Herons Marina at Lake Monroe to	10/11/2022 11:10	115	102	7	1	6	0	2			2
👋 Our Stormwater Inspector was able to attend the induction of Two He	10/13/2022 12:10	978	900	91	7	62	22	243	74	169	
For our fourth stormwater staff Friday, we'd like to present the	10/14/2022 13:10	401	380	43	1	31	11	69	31	38	
Thank you to everyone that supported BugFest this year!	10/17/2022 6:10	73	61	1	0	1	0	2			2
A really neat article about the importance of stormwater infrastructure	10/18/2022 8:10	35	26	2	0	2	0	0			
For this week's Stormwater Staff Friday, we want to highlight	10/21/2022 13:10	50	42	6	0	6	0	12	4	8	
Fall PSA: Raking leaves into the street can clog storm drains and pipes	10/24/2022 6:10	47	36	3	0	3	0	0			
For this Stormwater Staff Friday, we're going to move onto the first	10/28/2022 11:10	172	143	23	2	20	1	31	13	18	
Happy Halloween, Monroe County! 🎃 🎃 🎃 🎃	10/31/2022 10:10	136	123	5	1	4	0	3			3
Saving the best for last, our final Stormwater Staff Friday is our	11/4/2022 14:11	1155	1114	68	3	62	3	105	44	61	
Happy Monday, everyone! A quick reminder that our offices will be	11/7/2022 10:11	29	23	1	0	1	0	0			
To all of the veterans of our military branches, including our very	11/11/2022 13:11	32	25	4	0	4	0	3	3		
This past Wednesday we had our annual Contractor's Workshop	11/18/2022 13:11	64	55	6	0	6	0	31	8	23	
🍷 & BQ = 🍷 & 🍷	11/21/2022 13:11	23	18	3	0	3	0	0			
What does 🍷 and 🍷 have in common? 2 things!!! Thanks Erica	11/21/2022 13:11	101	9	2	2	7	0				
As the weather gets 🍷 colder 🍷 here in Monroe County,	11/28/2022 6:11	21	17	1	0	1	0	1			
This week we want to touch a little bit on illicit discharge. Illicit discharge	12/2/2022 14:12	45	41	5	0	5	0	1	1		
Keeping storm drains clear in the winter is just as important	12/5/2022 7:12	59	55	5	0	5	0	2	2		
Sediment transport from soil loss is one of the biggest pollutants	12/5/2022 9:12	54	49	4	0	4	0	2	1		1
Fortunately, so far this year we haven't had significant winter weather,	12/9/2022 13:12	57	54	4	0	4	0	5	2	3	
We talk a lot about how to keep the water we have clean,	12/19/2022 7:12	35	31	2	0	2	0	0			
Slightly late, but happy ugly sweater day from out Stormwater Team	12/20/2022 13:12	93	87	7	0	7	0	14	2	12	
Happy first day of Winter! If we have a big snow this winter, you can help	12/21/2022 13:12	158	145	10	1	9	0	7	2	5	
From our stormwater family to yours, Happy Holidays! 🎄 🎄 🎄	12/26/2022 7:12	42	39	2	0	2	0	0			

Appendix C: 2022 Monroe County Fair Display



Appendix D:

MEMORANDUM OF UNDERSTANDING
between the
Monroe County Stormwater Management Board (MCSWMB)
and the
Monroe County Soil and Water Conservation District (MCSWCD)

The Parties to this Memorandum of Understanding (MOU) agree to the following:

Article 1: Purpose and Scope

To provide persons owning land inside the boundary of Monroe County and that pay into the Monroe County Stormwater Fee, access to educational, technical and/or financial resources on their property with regard to concerns, problems, and/or issues related to water quality and/or soil health in an effort to improve the overall health of all watersheds that cross through Monroe County. The partnership is intended to help the MS4 meet its permit requirements - via education and outreach to individual landowners, and by implementing BMPs designed to improve water quality and soil health.

Article 2: Conditions and Agreements

MCSWCD Board and Staff agree to work to execute the joint goals of the MCSWCD and MCSWMB to expand the capacity for community involvement and education.

The MCSWCD Board of Supervisors agree to oversee these funds, once these funds have been placed into the MCSWCD account they become funds of the State of Indiana. The MCSWCD Board will review all project applications (see Appendix A). The MCSWCD Board or their representative retains the right to approve or deny any or all applications based on said application ability to meet the purpose and scope of this MOU.

To build the capacity of this partnership and provide maximum access for Monroe County land holders the criteria for one to apply for a Partnership Grant are as follows:

- Must be a Monroe County Land Owner and/or have permission from the land owner to apply as the operator.
- Project area must lay inside Monroe County - Project area cannot be located in the City of Bloomington or Town of Ellettsville.
- One can apply for a specific project every three (3) years on a specific identified area of land. The exception is cover crop applications. If applying for a cover crop application, one can apply annually for a maximum of 3 years on the same identified area land.
- Once an application is approved by the MCSWCD Board, then the applicant will enter into agreement to complete the project by said date and/or within 2 years from the signed date of the agreement.
- Participant agrees to provide, signed agreement and W9 to MCSWCD prior to beginning the project. (Appendix B)
- Participants agree to provide MCSWCD with all receipts, documentation and photographs before, during and after the project is completed. This is required before funds will be issued to the participant.
- Participants agree to a site visit and/or random spot check by an MCSWCD or MCSWMB representative.
- Participants agree to maintain the project for the stated amount of time in the agreement, based upon NRCS recommendations and/or contractor recommendations.

- Participants will not hold Monroe County Government, it's representatives or Monroe County Soil & Water Conservation District liable if the project should fail.
- MCSWCD will issue reimbursements to participants and process all 1099's for partnership projects.
- All projects are to have some form of land holder buy-in, at a minimum 25% of the project be that payment for materials or labor/sweat equity to install the project.
- No individual project will be more than a maximum of \$2000 unless agreed upon by the MCSWCD Board and MCSWMB.

Part-time Summer Educational Staff

- MCSWCD staff in partnership with MS4 staff will evaluate annually the need for part-time summer outreach and education staff. Working collectively to define the duties of the summer.
- If part-time summer staff are hired the following will be the guidance
 - Average of 20 - 25 hours a week minimum
 - Maximum total summer salary will no more than \$4000
 - Minimum of 12 weeks - Maximum of 14 weeks - May through August
- Position will be housed at MCSWCD

Article 3 Timing and Reporting:

- MCSWMB will provide MCSWCD upto \$35,000 annually for the development and expansion of the Stormwater Partnership Grant Program.
- At the end of each fiscal year MCSWCD will provide a written report of funds spent in that Physical Year and Funds Allocated for the next physical year. If unused funds exist MCSWCD will work with MCSWMB and MS4 Staff to determine if funds should be returned or if requested funds amount needs to be adjusted.
- MCSWCD Staff will work with MS4 Staff to develop an accurate and beneficial reporting system that can then be presented to the MCSWMB at a minimum of three (3) times a year or as requested for a special situation.

Penny Diefhues

Monroe County Stormwater
Management Board Member

3/18/2022

Date

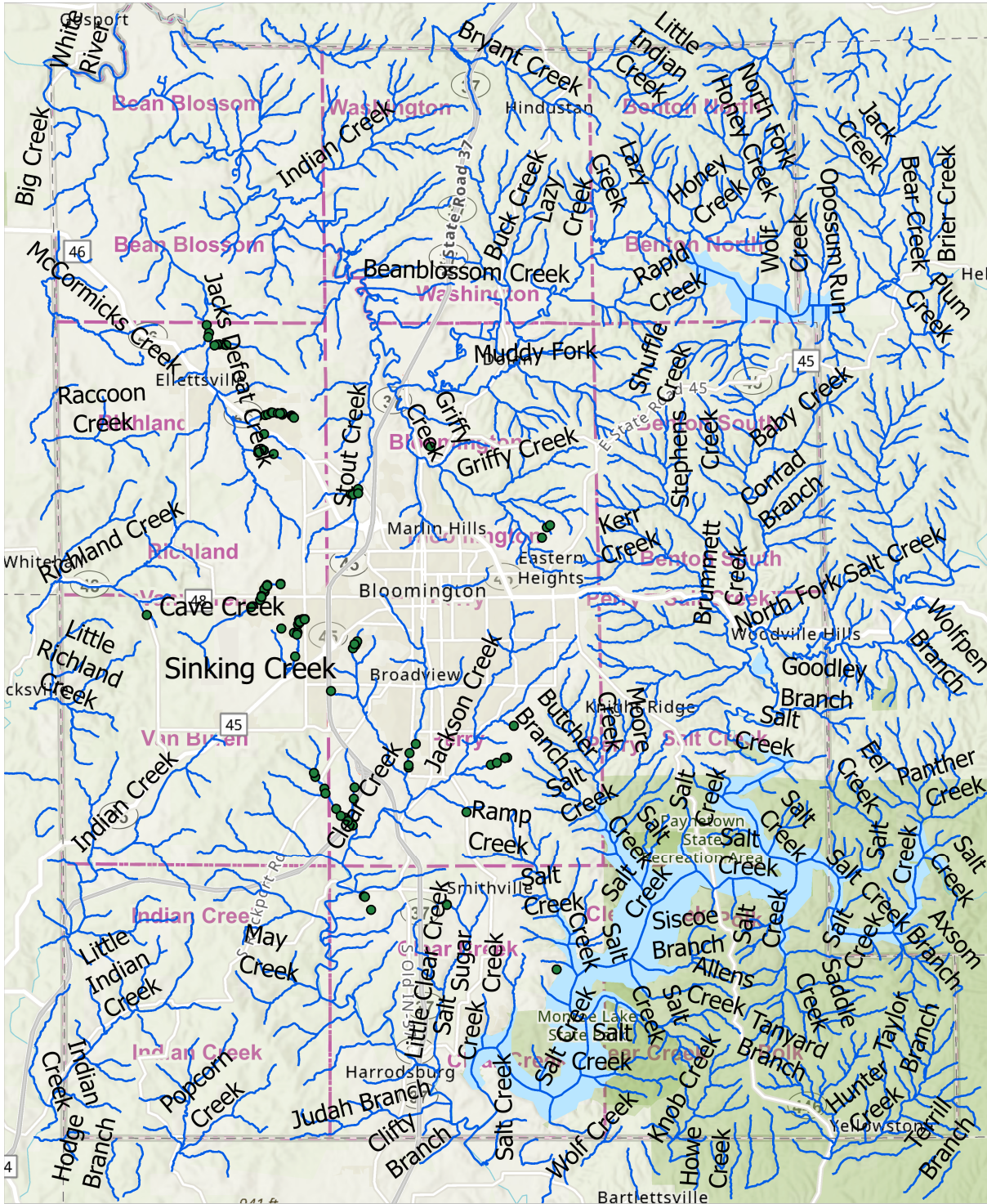
William Schaefer







Monroe County Soil & Water Conservation District
Seated Chair

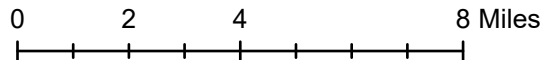
3/17/21

Date

Appendix E: Outfalls Screened in 2022



 Streams	 Townships
 Road Names	 County Boundary
 Major Roads (Large scale)	 Storm Outfalls

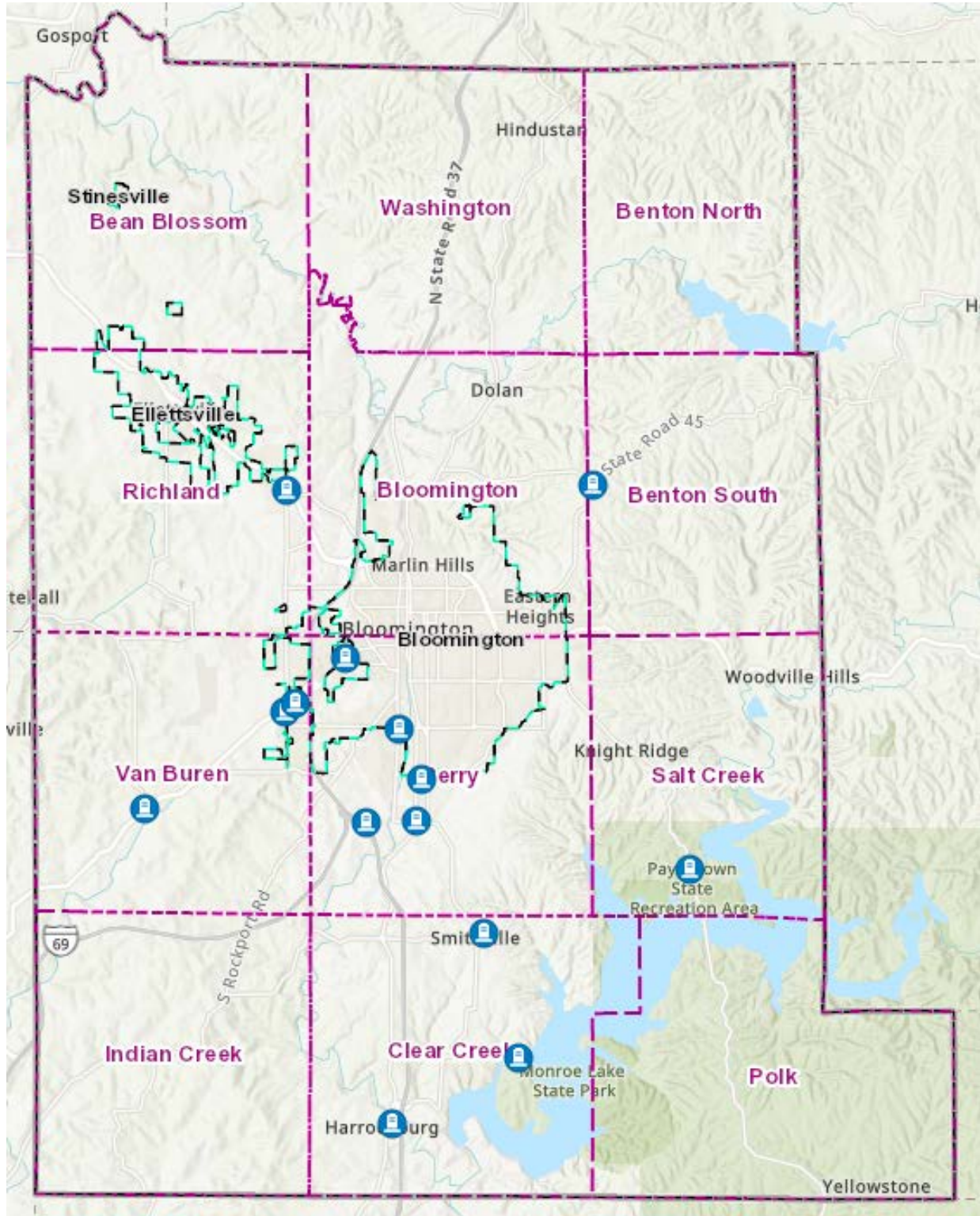


Esri, CGIAR, USGS

Map created 3 26 2023

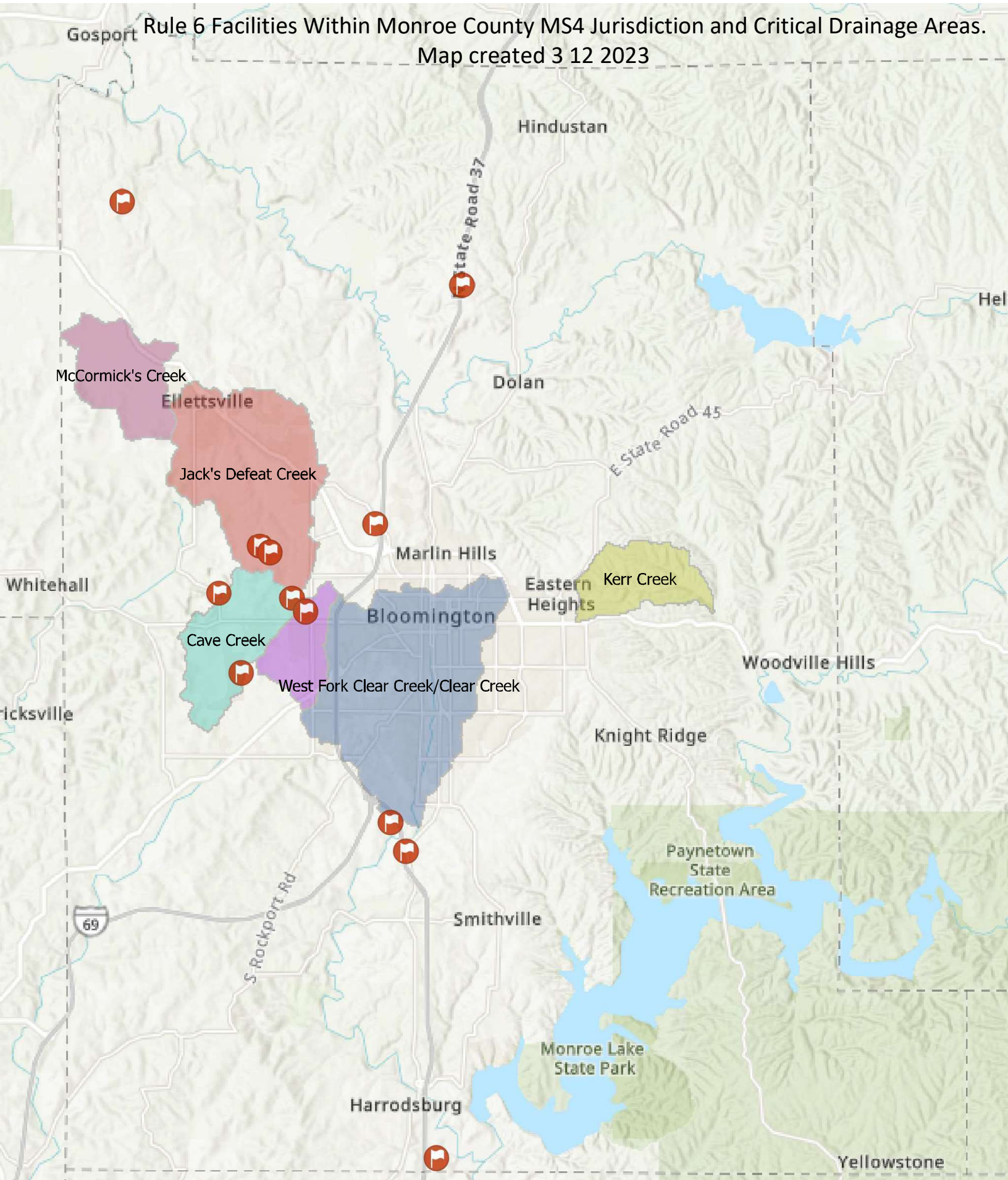
Appendix F: Maps of Retail Gas Stations and Rule 6 Facilities within Monroe County MS4

Map of Retail Gas Stations within Monroe County MS4 jurisdiction



Map created 3/21/2022

Gosport Rule 6 Facilities Within Monroe County MS4 Jurisdiction and Critical Drainage Areas.
Map created 3 12 2023





Stormwater Services

Fall 2022 Compliance Reminders

ACTIVE CONSTRUCTION PROJECTS

As Fall 2022 is upon us, the Stormwater Program would like to remind you of a few important site maintenance items to prioritize before the cold, wet winter months.

Importantly, site stabilization and perimeter controls will be your primary efforts in preventing erosion and sediment transport off site. Additional measures may be necessary to adequately stabilize or protect the site, and to meet your permit conditions.

Additional compliance information can be found at: www.in.gov/idem/stormwater/

SITE STABILIZATION

Reminder! Stabilization of disturbed areas should be initiated by the **seventh day** of inactivity.

Stabilize as much area as possible before winter. Freeze and thaw conditions will create muddy sites.

Straw mats atop a seed bed can stabilize in late fall and winter, and will be ready for spring growth.



PERIMETER PROTECTIONS

Perimeter protections become especially important when vegetation cannot establish. Perform weekly perimeter inspections and make repairs within 48 hours of discovery.

Alternative measures, such as straw wattles or check dams may be helpful.



On slight slopes, straw wattles or coir logs with J-hooks can prevent sediment from leaving the site. They must be trenched in properly!

OFF-SITE TRACKING

Maintaining an adequate construction entrance breaks up accumulated sediment on construction vehicles. Street sweeping equipment should be kept on site year-round.

This is the #1 complaint we receive from nearby homeowners!



Maintain proper stone base for duration of project.

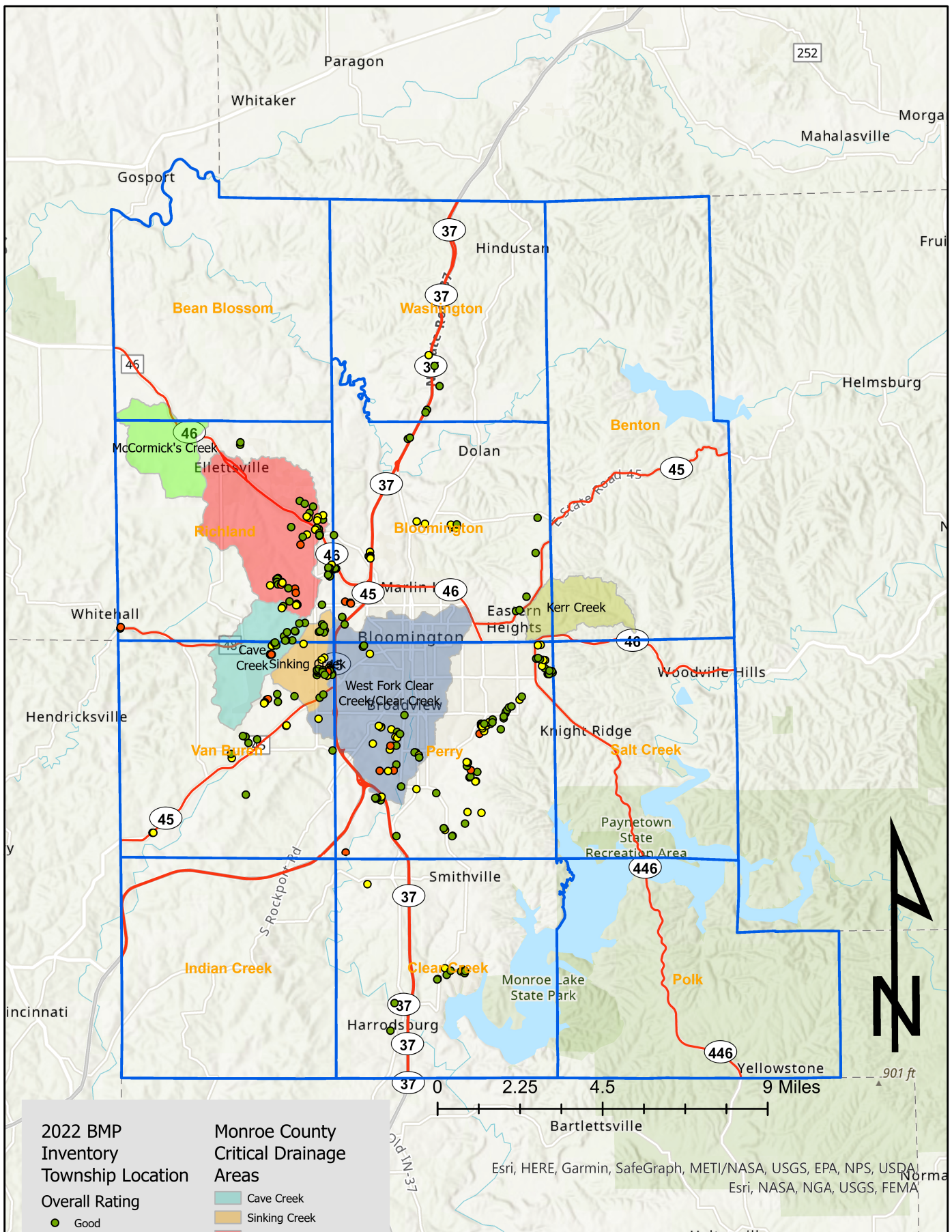
Reminder:

Self-monitoring inspections should occur at minimum once per 7 days, AND 24 hours prior to or following a 0.5" rain event, up to 3 times per 7 days.

Self-monitoring reports should detail the corrective actions to be taken and a timeline for completion. Corrective action should be initiated within 48 hours of discovery.

Reports should be maintained on site in the project management log, or in an easily accessible location, such as an online folder. IDEM or Monroe County MS4 may ask for reports if inspection conditions warrant.

A self-monitoring form template can be found on IDEM's website and is customizable to your site.



Map created 3 29 2023