



MS4 General Permit Annual Report

Reporting Period: 2021-2022

Porter County Storm Water Management

155 Indiana Avenue Suite 311

Valparaiso, IN 46383

March 28, 2022

Table of Contents

MS4 Annual Report	1
Part A: General Information – MS4 Operator	1
Part B: General Information – MS4 Coordinator	1
Part C: General Information – Report Preparer	1
Part D: Program Management	2
Part E: MCM 1	3
Part F: MCM 2	4
Part G: MCM 3	4
Part H: MCM 4	5
Part I: MCM 5	6
Part J: MCM 6	7
Part K: Certification and Signature	7
Exhibit A: MS4 Area Annexation Map 2022	8
Appendix A: Programmatic Indicators	9
Appendix B: Public Survey Results & Analysis	13
Appendix C: MCM 6 HHW Reporting	22



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>2021-2022</u>
<input checked="" type="checkbox"/> Second and subsequent five (5) Year Permit Terms	<input type="checkbox"/> 1 <input checked="" 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 0 140	Type of MS4:	<input type="checkbox"/> City
2. MS4 Entity:	Porter County <i>(Name of permit holder)</i>	<input type="checkbox"/> Town	<input checked="" type="checkbox"/> County
		<input type="checkbox"/> Non-traditional	
3. MS4 Operator:	Board of County Commissioners, ATTN: Jim Biggs, President		
4. Mailing Address:	County Administration Center 155 Indiana Avenue, Suite 205 Valparaiso, IN ZIP: 46383 County: Porter		
5. Email Address:	jbiggs@porterco.org		

PART B: GENERAL INFORMATION – MS4 COORDINATOR

6. MS4 Coordinator (<i>please print</i>):	Amanda Vandenoever		
7. Person's Title:	MS4 Program Coordinator		
8. Mailing Address:	County Administration Center 155 Indiana Avenue, Suite 311 Valparaiso, IN ZIP: 46383		
9. Telephone Number:	219-510-1117		
10. E-mail Address:	amanda.vandenoever@porterco.org		

PART C: GENERAL INFORMATION – REPORT PREPARER

11. Name:	REPORT COMPLETED BY MS4 PROGRAM COORDINATOR <i>(Provide this information if someone other than MS4 Operator or Coordinator completed this report.)</i>		
12. Affiliation with the MS4:			
13. Mailing Address:			
	, IN	ZIP:	
14. Telephone Number:	Extension:		
15. E-mail Address:			

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.
N/A
- 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")
See attached Exhibit A. The only change to the MS4 area boundaries was lost via annexation.
- c) Identify follow-up or additional water quality characterizations completed during the reporting period if applicable.
A copy of the WQCR is included with this submittal.
- d) Provide updated receiving water information completed during the reporting period if applicable.
A copy of the WQCR is included with this submittal.
- e) Identify funding sources (utility fees, grants, enforcement fines etc) utilized for MS4 program implementation during this reporting period.
The Porter County Storm Water Management Program (Department) is funded by the Porter County Storm Water Infrastructure User Fee. This fee is paid by all property owners in unincorporated Porter County, excluding those located in several conservancy districts. All fees collected are used solely to fund the Storm Water program's efforts to provide storm water management for all unincorporated Porter County residents.
- f) Provide a list of new active industrial sites identified during this reporting period.
NONE
- g) Provide a list of facilities owned and operated by the MS4 that require Rule 6 (industrial storm water) permits.
NONE
- h) Provide a summary of complaints received and follow-up investigation results related to storm water quality issues during this reporting period.

The Department utilizes a storm water concern reporting and response system that allows the public to submit concerns online, complete with location, detailed information about their concern, and, supporting photographs. Concerns are assigned to a Department "detective" and complainants are contacted within seven days of receipt of a concern to schedule a follow up investigation. The Department "detective" contacts the complainant, using the complainant's preferred contact method, to schedule the investigation and then again after the investigation is complete to discuss the findings and next steps. If the concern is determined to be related to Porter County's public storm water infrastructure, or should be, the Department will begin working on the design and implementation of a solution. If the concern is determined not to be related to the County's public storm water infrastructure, the complainant is provided with information and/or technical assistance regarding resolution of the concern.

In 2021, the Department received reports of 193 storm water concerns. These concerns ranged from yard and primary/accessory structure flooding to clogged culverts and drain tiles. Most complaints were related to yard and primary/accessory structure flooding and ponding/standing water issues. Driveway, road, ditch, and culvert flooding were the second most occurring. The remaining complaints cover a wide range of other property issues. Only one concern was water quality related within the Porter County unincorporated jurisdiction, and none resulted in illicit discharges. Many of the storm water concerns received and evaluated by the Department were determined to not be related to the County's public storm water infrastructure. At least 37 concerns reported to the Department in 2021 were resolved by the Department via repair, maintenance, construction or reconstruction activities, and likely many more.

In 2022, the Department received reports of 190 storm water concerns. The types of concerns received in 2022 were comparable with those received in 2021, with standing water and flooding being the largest issue reported. Again, many of the concerns received and evaluated by the Department were determined to not be related to the County's public storm water infrastructure. Of the 190 concerns received and evaluated by the Department, at least 9 were resolved by the Department via repair, maintenance, construction or reconstruction activities.

These storm water concern reports are available upon request.

These reports, particularly those related to the County's public storm water infrastructure, or that should be, will soon have an improved prioritization & ranking system to manage importance, relevance, and aid in future planning for storm water management improvement projects throughout Porter County.

- i) Other:
NONE

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.

Please see Appendix A.

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

Historically, Porter County holds an Earth Day celebration event at the Porter County Expo Center. Every year the public is invited to participate in the Earth Day festivities. These activities include games themed for environmental education, rain barrel raffles, and more. Porter County Recycling and Waste Reduction, Storm Water Management, SWCD, and many other groups have booths/tables that promote our storm water quality work. Unfortunately due to COVID-19 restrictions, 2021 did not include an Earth Day event. Instead, the Porter County Recycling District distributed 500 trees at the Household Hazardous Waste (HHW) collection to encourage celebrating Earth Day. In 2022, Porter County Expo Center hosted the event once again. There were 643 attendees; 200 trees and 30 rain barrels were distributed throughout the region through a school contest.

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

The Porter County Storm Water Management Facebook page went above and beyond those BMPs originally identified for public education and outreach. The public education and outreach provided by our social media campaign, which is explained in more detail in Appendix A, not only satisfies, but exceeds, the requirements associated with this MCM.

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

Please see Appendix A.

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

Please see Appendix A.

- 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.
Please see Appendix A.
- b) Describe implementation problems encountered and changes made due to ineffectiveness or infeasibility during this reporting period.
Please see Appendix A.
- c) Describe program BMPs that went beyond those identified in the SWQMP.
The Porter County Storm Water Concern Reporting & Response system went above and beyond those BMPs originally identified for public participation and involvement. Beyond the system being a tool that can be used to communicate the geospatial location of hundreds of public storm water concerns across the County, on a wide variety of storm water-related issues, the public submitting these concerns have helped create a "storm water" map of the county, identifying where natural and man-made infrastructure and concerns are located, and has aided in shaping, scoping, and developing the County's Storm Water Management Program.
- d) Identify storm water BMPs installed or initiated for this MCM during this reporting period.
Please see Appendix A.
- e) Describe program implementation partnerships and explain successes and barriers during this reporting period.
Please see Appendix A.
- f) Other:
NONE

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.).
In both 2021 and 2022, the Porter County Storm Water Concern Reporting & Response system was used as a tool for the public to report illicit discharges. The apparent illicit discharge reports that were received through this system were submitted with details on smells or visual siting of dumping; these reports and follow-up investigations did not result in finding an illicit discharge. Please see the above sections for further details on the reporting system.
In October 2021, an outfall reconnaissance inventory was conducted. The outfall map was revised using previously collected data on the locations of storm sewer structures, detention basin inlets and outlets, and outfalls, which was collected by Department interns in 2017 and 2018 to locate storm water infrastructure and evaluate its condition. The revised outfall map now includes 162 outfalls with photos, identified by latitude and longitude, and a unique alphanumeric naming convention. This outfall screening occurred during dry weather in September and early October. Each outfall was evaluated, with the type, size, and material of the outfall documented, and any odor, discoloration, or damage, if present, noted. If flow was present, a sample was taken and tested for temperature, odor, turbidity, floatables, pH, chlorine, ammonia, potassium, and surfactants. None of the testing results showed any harmful levels of chemicals or nutrients. The most common type of flow identified during the outfall reconnaissance was ground water flow, likely due to infiltration into the storm sewers due to aging and deterioration of the infrastructure.
This outfall reconnaissance inventory also allowed for collecting the locations of new/newer storm sewer structures not previously mapped.
The Department started the revisions to its Illicit Discharge Detection and Elimination (IDDE) Program Plan in 2020. The revisions to the IDDE Program Plan are scheduled to continue through 2023.
- b) Describe implementation problems or challenges encountered, particularly as it relates to mapping and screening of outfalls during this reporting period.
The Porter County MS4 area is larger than that of the typical municipality, with many more miles of public and private storm water infrastructure. This presents a continual challenge to efforts to screen outfalls in a timely manner. Despite this challenge, the Department works, to the maximum extent practicable, using its available staff and resources, to screen outfalls in accordance with the requirements of the NPDES Municipal Stormwater Program. Screening of all outfalls in the Porter County MS4 area is scheduled to be completed in accordance with the "once every five years" outfall screening requirement.
- c) Identify changes made to the IDDE Plan during this reporting period if applicable.
Changes/improvements explained in more detail in "Section a" above.
- d) Identify updates or revisions to IDDE ordinance or other regulatory mechanism made during this reporting period.
N/A
- e) Describe level of mapping and screening completed to date. If there are unmapped or unscreened outfalls, provide a plan and a timetable for completion.
As explained in "Section a", screening of all outfalls in the Porter County MS4 area is scheduled to be completed in accordance with the "once every five years" outfall screening requirement. For every year in each five year permit period, the goal is to screen another 20% of the outfalls in the MS4 area until 100% of the outfalls have been screened by the end of Year 5.
- f) Other:
NONE

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.

In both 2021 and 2022, the Department added staff to help review erosion and sediment control plans, inspect construction sites, and enforce the County's erosion and sediment control and storm water standards. The Erosion & Sediment Control/Site Improvement Permit review and approval process ensures that if construction activities result in 10,000 SF or more of land disturbance, the Department will review the construction plans to ensure compliance with the County's erosion and sediment control and storm water standards, which are consistent with and, in some cases, more stringent than, the state's standards. Once a project has been granted an Erosion & Sediment Control/Site Improvement Permit, a pre-construction conference is held with relevant project personnel, including developers, contractors, and subcontractors, and the site is inspected regularly by Department staff. Inspection results are shared with the project owner and other relevant project personnel. If the approved erosion & sediment control plan is not being adhered to, or additional BMPs need to be put in place to prevent storm water pollution, any corrective actions are noted on the inspection report provided to the project owner and other relevant project personnel. Photos of any problem areas are also taken and attached to the inspection report. Such inspection reports identify any necessary corrective actions, a time frame within which such corrective actions must be implemented, and a warning of possible enforcement actions if such corrective actions are not completed in a timely manner. Examples of such inspection reports are available upon request.

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

Due to COVID-19 related issues, there was no training event in 2021. Porter County partnered with Lake County for Annual Contractor Training events in 2022, which was successful in educating all attendees on updates to relevant erosion and sediment control and storm water regulations as well as new erosion and sediment control practices for construction sites.

- 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.

Including subdivisions, site development plans, and single-family residential home sites, there were 277 and 272 sites permitted during the reporting period for 2021 and 2022, respectively. There are currently 3 active construction sites owned by the MS4 entity. There were 33 and 41 construction sites that were issued a stormwater runoff permit in 2021 and 2022, respectively. All sites were inspected at least once during the initial stages of construction. Although many sites needed to take corrective actions in response to self-inspections or inspections conducted by Department staff, most of them took such corrective actions in a timely manner. For this reason, enforcement actions taken by the Department were limited, and included the issuance of stop work orders until such corrective actions were completed by the project owners. Six stop work orders were issued by the Department during the reporting period.

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

In 2021, COVID-19 restrictions were in effect; therefore, no Annual Contractor Training event occurred during this year. In 2022, Porter County partnered with Lake County for the Annual Contractor Training event, which was mentioned briefly in "Section b" above. The 2022 Annual Contractor Training event included the following training topics: county-wide updates and information on erosion and sediment control and storm water management in both Lake and Porter Counties; budgeting for erosion controls and why they are important, with Q & A sessions, the transition from Rule 5 to the Construction Stormwater General Permit, concrete and cementitious washwater management, and thorough ESC control presentation covering stream buffering, sediment basins, floating outlets, polymers, flocculants, perforated riser outlets, rock horseshoes, baffles, and rock berms. The 2022 Annual Contractor Training Workshop was held at the Dean & Barbara White Community Center with 177 attendees.

- 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.

In 2021, Porter County MS4 personnel were able to attend the following training events: Purdue/LTAP Road School storm water-related sessions, Purdue/LTAP Storm Water & Drainage Conference, NISWAG meetings and training sessions, and various storm water training webinars. In 2022, MS4 personnel were able to attend the Purdue/LTAP Storm Water & Drainage Conference, INAFSM, and Porter & Lake County Annual Contractor Training event. Many webinars such as the Purdue/LTAP Road School online conference and engineering-based educational webinars were attended by staff to obtain additional relevant training virtually as COVID-19 restrictions were lifted during this reporting period.

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

On August 2, 2022, Porter County UDO was amended to include the Flood Damage Prevention Ordinance as required by the Indiana DNR.

- g) Other:
NONE

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 BMP in the SWQMP including timetables and measurable goals during this reporting period.

The following post-construction storm water management practices are encouraged and/or required by the Porter County Storm Water Standards: preservation of stream buffers and undisturbed natural areas, minimization of land disturbance and the creation of new impervious cover, minimization of directly connected impervious areas, maximization of open space, capturing and treating a specified water quality volume, and capturing and managing a specified flood control volume. These post-construction storm water management practices are implemented to the maximum extent practicable on the Department's own construction and reconstruction projects but, perhaps more significantly, on all new development projects (e.g., subdivisions, site development plans) located within the County's MS4 area.

In both 2021 and 2022, the Department added staff to review development projects, inspect construction sites, and enforce the County's erosion and sediment control and storm water standards. Such additional resources helped improve customer service and increase compliance with the County's erosion and sediment control and storm water standards.

All 74 sites that required an MS4 entity-issued stormwater runoff permit for years 2021 and 2022 were required to include post-construction controls. For MS4 entity owned projects, there were 31 post-construction structural measures, each with corresponding storm sewer, during this reporting period. Locations for these structures can be provided upon request. For MS4 entity-issued permitted construction projects, there were 233 post-construction structural measures, each with corresponding storm sewer, during this reporting period. Locations for these structures can be provided upon request.

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

Staff turnover and a large number of sites requiring inspection made completing all site inspections difficult. Sites were monitored to the best extent practicable with staff availability.

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

N/A

- 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.

Please see "Section 20.d" above.

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

N/A

- f) Other:

NONE

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.

Please see Appendix A for more details.

The Porter County Highway Department conducts "large litter and debris" pick up during its day-to-day operations. Items collected during such "large litter and debris" pick up efforts are brought back to the Highway Department Facilities and are properly stored until being properly disposed of. Storm sewer structure, storm sewer, and culvert cleaning is conducted by the Department, with the cooperation of the Porter Co. Highway Department, on an "as needed" basis. In 2021 and 2022, the schedule for storm sewer structure cleaning was continued, with the goal of cleaning all of the storm sewer structures located within the County's MS4 area within a five year period. Street sweeping of all publicly owned and maintained roads in subdivisions was completed on an "as needed" basis. Additional information regarding municipal operations and activities is available upon request.

In 2021 and 2022, the Porter Co. Facilities Department conducted regular maintenance at each County owned and operated facility, including maintenance of equipment found at each facility. Such activities were conducted in accordance with applicable storm water pollution prevention practices.

In November 2021 and September 2022, inspections of all County owned and operated facilities were conducted by Department staff. Such inspections found that many of the current operations and procedures were being performed in accordance with applicable storm water pollution prevention practices, but also revealed where improvements could be made at each facility. Such identified improvements included the following: new spill kits, increased secondary containment, improved/expanded labels on trash bins, education posters above sinks on what should be poured in sink, new outdoor containment for temporary stock piles, and quarterly inspections to be conducted by facility staff. Such identified improvements are expected to be implemented by the end of the quarter reporting period.

Regular sweeping and cleaning of indoor facilities is conducted where vehicles are maintained. Oil and grease separators are emptied and cleaned as needed, but at a minimum once a year, in accordance with applicable pollution prevention practices. All trash, recycling, hazardous waste, and debris are properly stored on a temporary basis and then disposed of in a proper manner when such temporary stock piles and/or storage bins are full. Conducting such operations on an "as needed" basis allows for efficient usage of staff time and resources across all Departments.

- 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.

Explained in "Section a"

- c) Identify storm water BMPs installed or initiated at MS4 owned and operated facilities.

N/A

- d) Identify and describe appropriate storm water training provided to MS4 employees. Employees are required to have a minimum training once per year.

N/A

- e) Other:

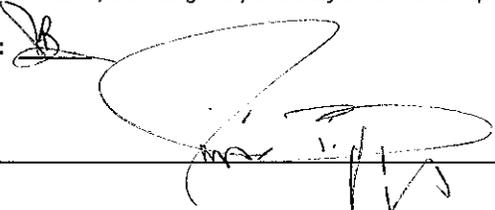
NONE

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:

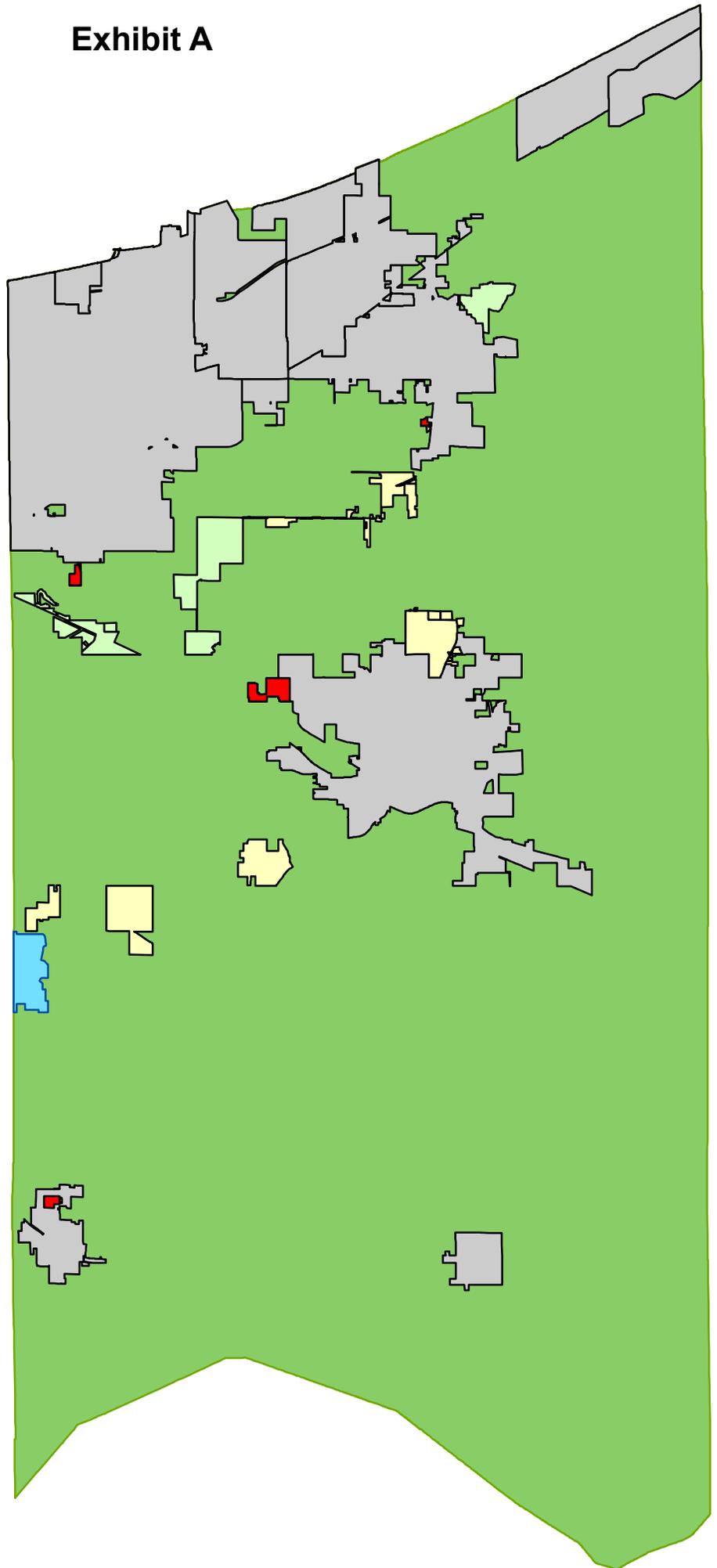


Signature:

3/28/23
(mm/dd/yyyy)

Exhibit A

Porter County MS4 Area Annexation Map



Legend

-  Municipal Annexations
-  Conservancy - non PC Service Entity
-  Conservancy - PC Service Entity
-  Municipality - Incorporated Areas
-  MS4 Entity
-  Porter County MS4 Area

Porter County MS4 Programmatic Indicators

Note: *Porter County Storm Water Management* is synonymous with the *Department* in this document.

(1) Number or percentage of citizens, segregated by type of constituent as referenced in section 12(a) of this rule, that have an awareness of storm water quality issues. **Please view Appendix B for results of the countywide storm water public survey with 620 participants. The data in this document presents the wide range of storm water inquiries and responses given by the participants.**

(2) Number and description of meetings, training sessions, and events conducted to involve citizen constituents in the storm water program.

For this reporting period, it is understood that public education and outreach were hindered somewhat by COVID19. Despite this, the Department and its partners used advancements in technology that enabled education and outreach while maintaining proper social distancing.

Porter County Recycling and Waste Reduction Department (PCRWRD) has partnered with the Department for many years on storm water education. For 2021-2022, PCRWRD reached 1,489 and 1,346 students in 2021 and 2022, respectively, with water quality and environmental education. Please see Appendix C for the attendance breakdown. From PCRWRD, "The Porter County row includes unincorporated areas such as Wheeler, Ogden Dunes, Boone Grove, and parts of Chesterton. In 2021, the COVID-19 pandemic affected Education Outreach Program by limiting the programs that could be held in person. In 2020, we watched the education numbers drop and now in 2022, they were on the rise as classes returned to back in-person."

In 2021, the Department operated and updated the Porter County Storm Water Management website. The site URL is portercountystormwater.org. This website is linked from the main Porter County Government site as a separate website. This website contains educational material for homeowners, contractors, developers, and the general public. Public meetings, new projects, program updates, and educational information are posted occasionally to keep the website up to date. This website is the online method for submitting a Storm Water Concern Report (the storm water quality reporting system mentioned above in Part D.h). This reporting system has been successful and serves as an easily accessible location for the residents of Porter County. A new webpage called "Learn More" was installed 2021. This has been updated frequently with the storm water quality educational material from Facebook.

Porter County Storm Water Management Facebook page activity for 2021 and 2022 was kept on the schedule of 10 posts a month. These posts cover educational topics on the Department's storm water improvement projects, storm water quality, program implementation, and homeowner tips. Educational post series and videos have been popular and successful in reaching the public. Post series have included the following topics: NPDES MS4 permit, bioengineering stream restoration methods, storm water easements with emphasis on private and public infrastructure explanations, and wetland significance. The posted videos include interviews with storm water staff, onsite active projects, bioengineering methods in stream, storm water quality testing, sewer pipe televising, and website navigation. During this reporting period, our page has gained 222 followers, reached an average of 6,900 per month, and has an engagement rate of 5.5%. The public engages with these posts by liking, commenting, and sharing. Public comments regarding the Department's work and education have been

Appendix A

submitted on Facebook posts. These posts have also been shared with local Porter County, municipality, and neighborhood groups on Facebook to further the reach and engagement with the public.

(3) Number or percentage of citizen constituents that participate in storm water quality improvement programs.

For this reporting period, it is understood that public participation and involvement were hindered greatly by COVID19. Despite this, the Department and its partners used advancements in technology that enabled participation and involvement while maintaining proper social distancing.

Storm Water Concern Report system contains a majority of the public participation for this reporting period. Through this system, 193 submissions were made in 2021; 190 submissions were made in 2022. Many of these reports resulted in Department staff visiting the property and speaking with the property owner about the issue. The public participates in the storm water quality program by not only reporting issues or concern, but also learning through the Department's staff experience and expertise.

The Porter County Storm Water Concern Reporting system was used to meet the "Report a Polluter" requirement. Less than five of the nearly 400 complaints during this reporting period were focused on reporting a polluter. These usually reported a neighbor pouring contents down the storm sewer or dumping in ditches. These reports were assigned to a storm water staff, investigated onsite, and followed up with any necessary actions for clean up or education on dumping.

Through this reporting period, the Porter County Storm Water Facebook page was a continued public participation and involvement item. This page gives the viewer the option to participate at any time and share with anyone. Public comments regarding the Department's work and education have been submitted on Facebook posts. Comments were inquiry and complaint based. Responses were made through Facebook and email with elaborated educational answers. These posts have also been shared with local Porter County, municipal, and neighborhood groups on Facebook to increase the reach and engagement with the public. The Department will continue to use this tool in the future to create more participation and involvement opportunities.

The Department had drainage studies conducted in both the Greater South Haven area and the Shorewood Forest Subdivision. These included postcards that were sent out to the local residents for questions and feedback on their storm water issues. These studies served as unique opportunities to hear directly from the public their experience and knowledge regarding each neighborhood. The public's involvement is important for studies such as these since the Department cannot monitor all of the MS4 area all the time or during all-weather situations. The neighborhoods are a resource of information and can aid in guiding the solutions to local problems. These responses were pooled together by a consultant to assess the storm water issues. Public response record to these studies is available upon request.

(4) Number and location of storm drains marked or cast, segregated by marking method. There is 1001 identified structures within the Porter County MS4 area. **These structures are tracked via a GIS mapping system. An updated excel sheet with location data for these points is available upon request.**

(5) Estimated or actual linear feet or percentage of MS4 mapped and indicated on an MS4 area map. **Porter County MS4 area mapping is organized by feature types. Approximately 3,268,761 linear feet of**

Appendix A

regulated drains, public MS4 conveyance and private MS4 conveyance is mapped, which is about 90% of the total. Additionally, approximately 20% of the roadside ditch area is mapped.

(6) Number and location of MS4 area outfalls mapped. There are 162 outfalls mapped in the Porter County MS4 area. The process of collecting these points is explained in Part G.a of this report. An updated excel spreadsheet with location data for these points is available upon request.

(7) Number and location of MS4 area outfalls screened for illicit discharges. There are 162 outfalls mapped in the Porter County MS4 area, all of which were screened at least once for illicit discharges since October 2020 or when they were added to the inventory. An updated excel spreadsheet with location data for these points is available upon request.

(8) Number and location of illicit discharges detected. There was one illicit discharge located during the outfall screening in 2021. This was reported to the IDEM Northwest Regional Office for their analysis and clean up procedure. The location of this discharge is available upon request.

(9) Number and location of illicit discharges eliminated. None.

(10) Number of, and estimated or actual amount of material, segregated by type, collected from, HHW collections in the MS4 area. Please see Appendix C for these quantities.

(11) Number and location of constituent drop-off centers for automotive fluid recycling. PCRWRD utilizes seven sites, six annually. Note: due to COVID, two drop off site events were canceled and were labeled accordingly. Please see Appendix C for these locations.

(12) Number or percentage of constituents that participate in the HHW collections. Please view Appendix C for these quantities.

(13) Number of construction sites obtaining an MS4 entity-issued storm water run-off permit in the MS4 area. The Department has the Erosion and Sediment Control/Site Improvement Permit, which is equivalent to the above-mentioned "MS4 entity-issued storm water run-off permit". This permit grants a "green card" that is issued to subdivisions and non-residential site improvement projects. There were 43 and 27 permits issued in 2021 and 2022 respectively. Additionally, the Porter County Building Department issues residential, single family home/site improvement permits, which include erosion and sediment controls.

(14) Number of construction sites inspected. All 70 of the construction sites that received the Erosion and Sediment Control/Site Improvement Permit were inspected. Additionally, all residential single-family site improvement sites were inspected.

(15) Number and type of enforcement actions taken against construction site operators. For this reporting period, only 6 stop work orders were placed on separate individual lots. These were removed once the site operator fixed the related issue.

(16) Number of, and associated construction site name and location for, public informational requests received. None.

(17) Number, type, and location of structural BMPs installed. Storm water detention basins, storm sewer structures and swales were the structural BMP types installed this reporting period. Twenty nine (29) storm sewer structures, two (2) swales, and one (1) bioretention area basin were installed by

Appendix A

Porter County in the reporting period and are publicly owned and operated. Infrastructure added during this reporting period by private developments, which will eventually be maintained by the MS4 entity, are as follows: 24 detention ponds, 27 swales, and 182 storm sewer structures.

(18) Number, type, and location of structural BMPs inspected. **All new structural BMPs were inspected upon install.**

(19) Number, type, and location of structural BMPs maintained or improved to function properly. **There were thirty-two (32) structural improvements during this reporting period. In 2021 and 2022:**

Porter County Improved Storm Water Management Systems (SWMS) 2021-2022	
Ludington Ditch Arm 19, Phase 1	3 Structures with storm sewer
Windy Oaks SWMS Improvements, Phase 2	7 structures with storm sewer
Sunnybrooke Subdivision SWMS Improvements	7 structures with storm sewer
Kemper Ditch Arm 15, Drain Tile Reconstruction	4 structures with storm sewer
Hidden Hollow Subdivision SWMS Improvements	3 structures with storm sewer
Troon Subdivision SWMS Improvements	1 bioretention area, 1 structure with storm sewer
Emerald Ridge Subdivision Blarney Stone Dr. Drainage Improvements	pipe underdrain & swale
Saddlebrook Subdivision	4 structures with storm sewer & swale

Locations can be provided upon request.

(20) Type and location of nonstructural BMPs utilized. **The Department maintains many nonstructural BMPs within the MS4 area, which include stream buffers, vegetated filter strips, grassed waterways, and preserved natural areas. The Department tracks all maintenance projects related to ditches and grassed BMPs. Specific information can be provided upon request.**

(21) Estimated or actual acreage or square footage of open space preserved and mapped in the MS4 area, if applicable. **Open space is applicable to all Porter County Parks land, which is preserved and mapped. The total of open space is approximately 22,084,370 square feet. Additionally, each new development (residential, commercial, or industrial) is required by the Porter County UDO to meet the minimum 15% of open space.**

(22) Estimated or actual acreage or square footage of pervious and impervious surfaces mapped in the MS4 area, if applicable. **Approximately 866,531,523 square feet of impervious surfaces, which includes both impervious ground and building areas.**

(23) Number and location of new retail gasoline outlets or municipal, state, federal, or institutional refueling areas, or outlets or refueling areas that replaced existing tank systems that have installed storm water BMPs. **None.**

Appendix A

(24) Number and location of MS4 entity facilities that have containment for accidental releases of stored polluting materials. **N/A**

(25) Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where storm water can be exposed within the MS4 area. **N/A**

(26) Estimated or actual linear feet or percentage and location of unvegetated swales and ditches that have an appropriately sized vegetated filter strip. **N/A**

(27) Estimated or actual linear feet or percentage and location of MS4 conveyances cleaned or repaired. **The Porter County Highway Department cleans and repairs MS4 conveyances frequently, whenever a request or report is submitted. This frequency or location, however, is not tracked. The Department will work towards creating a tracking system for this BMP.**

(28) Estimated or actual linear feet or percentage and location of roadside shoulders and ditches stabilized, if applicable. **The Porter County Highway Department stabilizes roadside shoulders and ditches on occasion, whenever a request or report is submitted. This frequency or location, however, is not tracked. The Department will work towards creating a tracking system for this BMP.**

(29) Number and location of storm water outfall areas remediated from scouring conditions, if applicable. **In 2021 and 2022, the Department remediated outfalls with relation to all the MS4 entity-owned projects listed above. The location of these outfalls is available upon request.**

(30) Number and location of deicing salt and sand storage areas covered or otherwise improved to minimize storm water exposure. **The Porter County Highway Department has four (4) salt storage containments in total, all covered.**

(31) Estimated or actual amount, in tons, of salt and sand used for snow and ice control. **The Porter County Highway Department used approximately 8,000 tons of sand during this reporting period.**

(32) Estimated or actual amount of material by weight collected from catch basin, trash rack, or other structural BMP cleaning. **The Porter County Highway Department utilizes a vector truck for structural BMP cleaning. The weight collected, however, is not tracked. The Department will work towards creating a tracking system for this BMP.**

(33) Estimated or actual amount of material by weight collected from street sweeping, if utilized. **The Porter County Highway Department sweeps all subdivisions and bridges within the unincorporated Porter County MS4 area annually. The weight collected, however, is not tracked. The Department will work towards creating a tracking system for this BMP.**

(34) If applicable, number or percentage and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody. **N/A**



Porter County Storm Water Public Survey Results & Analysis

Contents

Analysis

1. Summary
2. Audience
3. Environmental Values & Concerns
4. Water Quality Knowledge & Behaviors
5. Views of The Department of Development & Storm Water Management

Appendixes (Available Upon Request for MS4 Annual Report 2019-2020)

- A. 2018 Public Survey Data & Results
 - Questions 1-23
 - Q6, Q9, Q10, Q13, Q23 write in responses
 - *Note that survey data is referenced in the analysis as follows: Q1 = Question 1 etc.*
- B. Public Meetings Data Summary



Porter County Storm Water Public Survey Results & Analysis

Summary

Porter County residents are concerned about environmental issues related to nature, wildlife, and open space as well as those related to pollution and health. They value the dose of nature that local streams, rivers, and lakes add to their lives, and are worried about water quality in these waterways, despite the fact that they view current water quality conditions as fair to good.

Residents believe individuals, government, and industry share responsibility for protecting the environment and most have taken steps to this effect. While residents recognize that their actions have an impact on local water quality, they see them as minor compared to the impact of agriculture, industry, and other point sources of pollution. And, while most have adopted behaviors to protect the environment in general, only about half have adopted actions that directly affect water quality. It is likely that more people would adopt these behaviors at home if the necessary tools were accessible and information clear. Emphasizing the collective impact of individuals' actions on local waterways and wildlife may further inspire these behavior changes.

Porter County residents have a strong understanding of how storm water is managed and its connection to and effect on local streams and rivers. They believe that managing storm water flow is largely the responsibility of local government. Almost half recognize that property owners share some of that responsibility and it seems likely that they would be willing to work with the Department to more efficiently manage storm water on their property. Currently, residents are roughly split on the effectiveness of the Department.

Messaging Implications

- Messaging that frames storm water issues in terms of nature, wildlife, pollution, and health is likely to resonate with the audience.
- In order to inspire more widespread adoption of behaviors that protect water quality, messaging should connect actions at home to specific impacts on wildlife and the natural beauty of local waterways .
- Messaging should provide the tools and information necessary to make adoption of desired behaviors easy and accessible.
- Messaging about the Department should:
 - ◆ Communicate projects, progress, and successes.
 - ◆ Focus on flood mitigation and storm water infrastructure.
 - ◆ Inform residents about the ways in which they can work *with* the Department to manage storm water on their property.

Appendix B

Audience

Porter County residents are likely to own their own home and have lived in the county for more than ten years. They are tied to and invested in their community, and have seen the county change and become more developed over time. Many homes are served by a septic system and/or private well. As a result, residents may be highly aware of their dependence on local water and the effects of water quality and water management on their lives. The audience is predominately white, educated, and middle class.

Demographics

2017 US Census estimates indicate that the median age in Porter County is 39, with 22% of the population under the age of 18 and 16% over the age of 65. The county is 93% white and most people have completed high school (92%). Twenty-six percent hold a Bachelor's Degree or higher. The median household income is just under \$65,000, putting most people in the middle class (Geiger, 2018).

Homeownership & Tenure

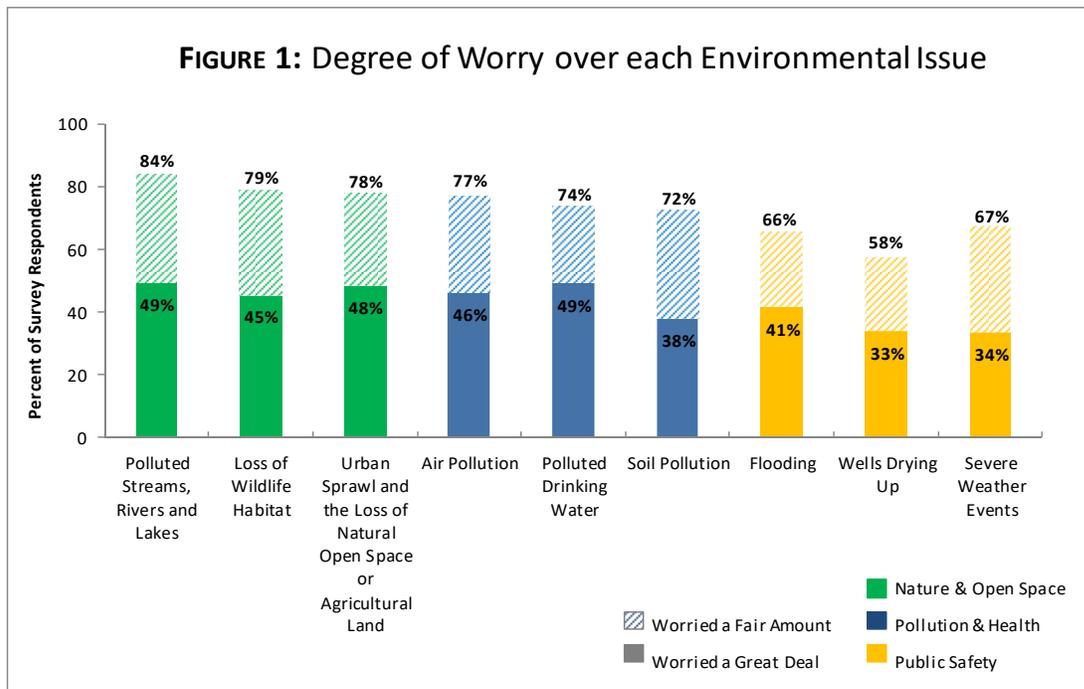
There is a high rate of homeownership in the county, with 77% of homes owner occupied (US Census Bureau, 2017). Most people moved into the county more than 20 years ago (City-Data, 2018, Q1). In fact, 84% of survey respondents have lived in the county for at least ten years and 65% for more than 20 years (Q1). The survey indicates that most homes are served by a private well (82%) and/or a septic system (82%) (Q4, Q5).

Demographic References

- Geiger, Abigail. "Are You in the American Middle Class?" *Pew Research Center*, Pew Research Center, 6 Sept. 2018, www.pewresearch.org/fact-tank/2018/09/06/are-you-in-the-american-middle-class/.
- "Porter County, Indiana (IN)." *Porter County, Indiana Detailed Profile - Houses, Real Estate, Cost of Living, Wages, Work, Agriculture, Ancestries, and More*, 2018, www.city-data.com/county/Porter_County-IN.html.
- "U.S. Census Bureau Quick Facts: Porter County, Indiana." *Census Bureau Quick Facts*, 2017, www.census.gov/quickfacts/portercountyindiana.

Appendix B

Environmental Values & Concerns

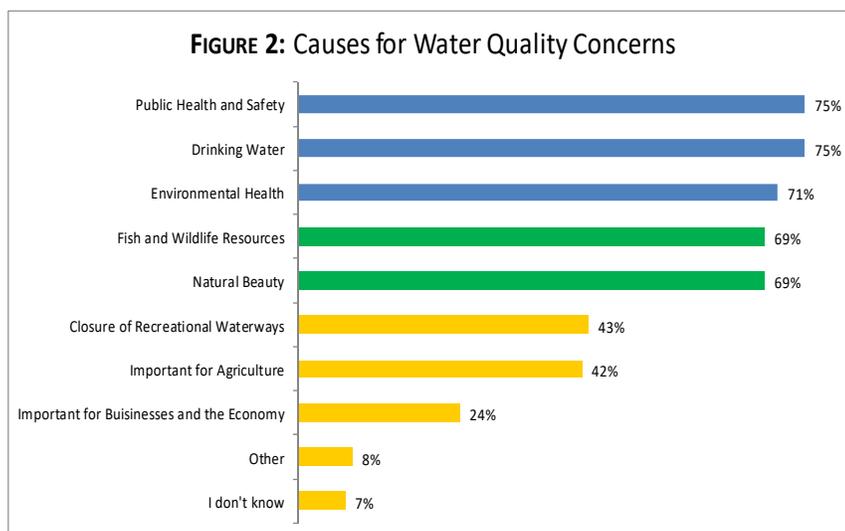


Pollution & Health

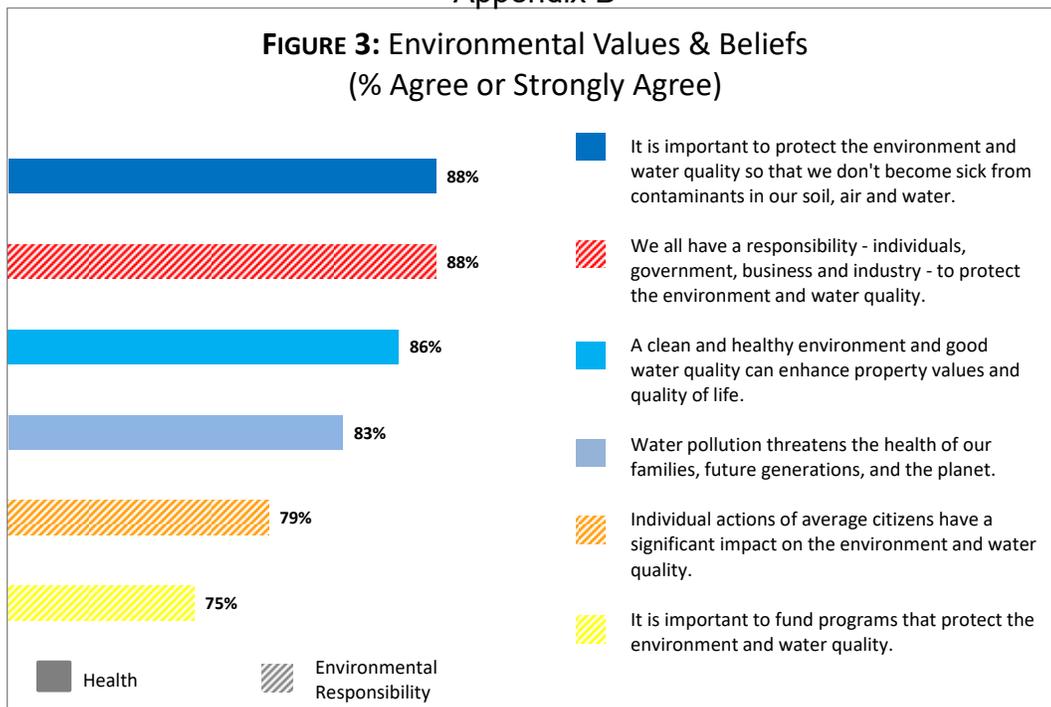
While respondents categorically showed greater worry over issues related to nature and open space, a comparatively high percentage (49%) reported that they “worried a great deal” about polluted drinking water, essentially tying with “Polluted streams, rivers and lakes” for the issue people are most intensely worried about (Figure 1, Q7). Furthermore, 75% of those worried about the water quality of local waterways cited drinking water as the reason for their concern and 75% cited public health and safety (Figure 2, Q13). Messages linking water quality and health resonated well with survey respondents. Between 83% and 88% of respondents found each of these types of messages compelling (Figure3, Q8).

Nature & Open Space

Survey respondents expressed the most worry over issues that can be categorized as ‘Nature & Open Space’ (Figure 1, Q7). In addition, of those worried about water quality in streams, rivers and lakes, 69% cited fish and wildlife resources as the reason and 69% cited natural beauty (Figure 2, Q13). Nature related causes for concern over water quality ranked second behind causes related to pollution, health, and safety.



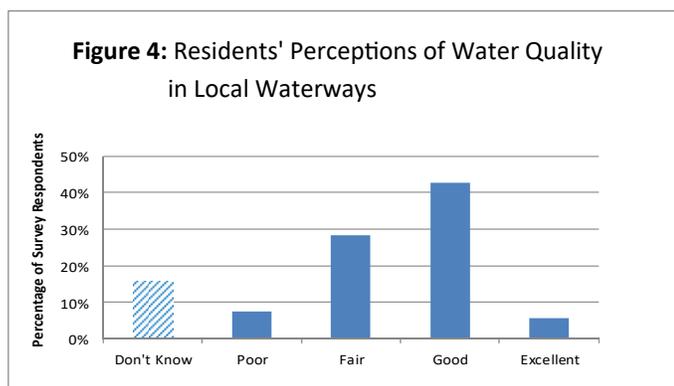
Appendix B



The majority of respondents interact with local waterways for a dose of nature, citing nature views, scenic backdrops, or walking and hiking as the way they enjoy local streams, rivers and lakes (Q10). These are followed by more active recreational activities, many of which can or do involve wildlife or emersion in nature, like hunting and fishing. Additionally, 15% of the write-in responses to Question 10, "How do you enjoy local waterways?", cite activities that involve wildlife, including birding, or some other close interaction with the natural world.

It is worth noting that, based on write-in responses to Question 10, many people may no longer interact with nature or local waterways due to age and/or health. Nine percent of write-in responses mention this.

Like survey respondents, issues related to pollution, health, nature and open space are top concerns for those that attended public meetings. And, they are much more concerned about flooding, wells drying up, and soil pollution than those responding to the survey.



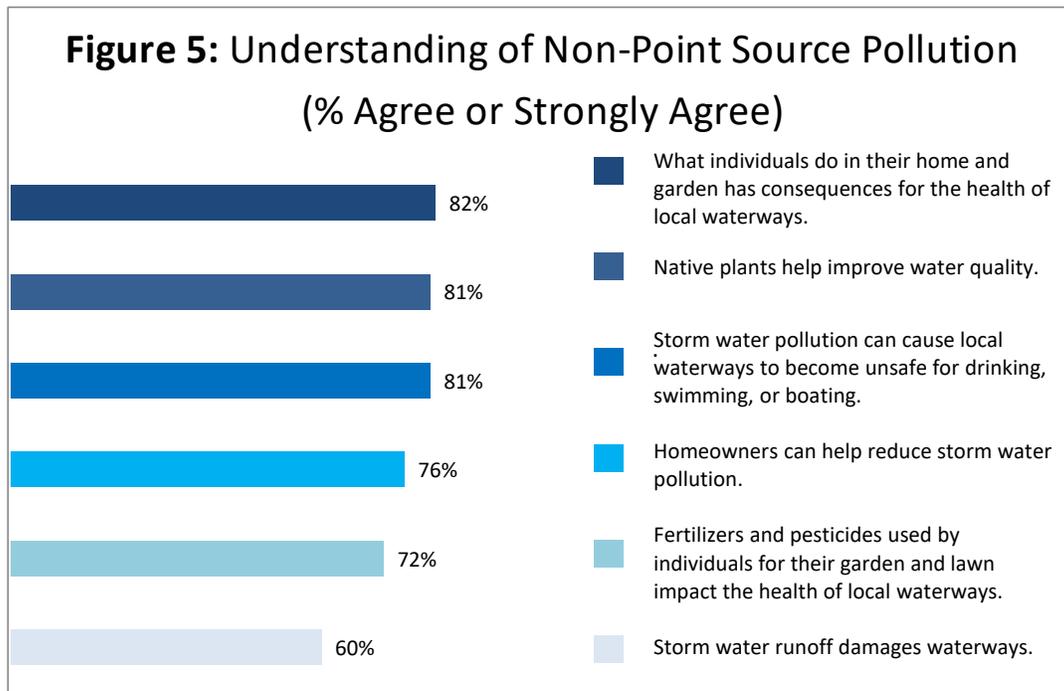
Water Quality

The majority of survey respondents (84%) are concerned about the water quality of local waterways (Q12), despite the fact that they do not believe it is currently in bad shape (Figure 4, Q11). Porter County does not need to be faced with a water problem in order to care about water quality and may be willing to take preventative measures to protect water resources.

Responsibility

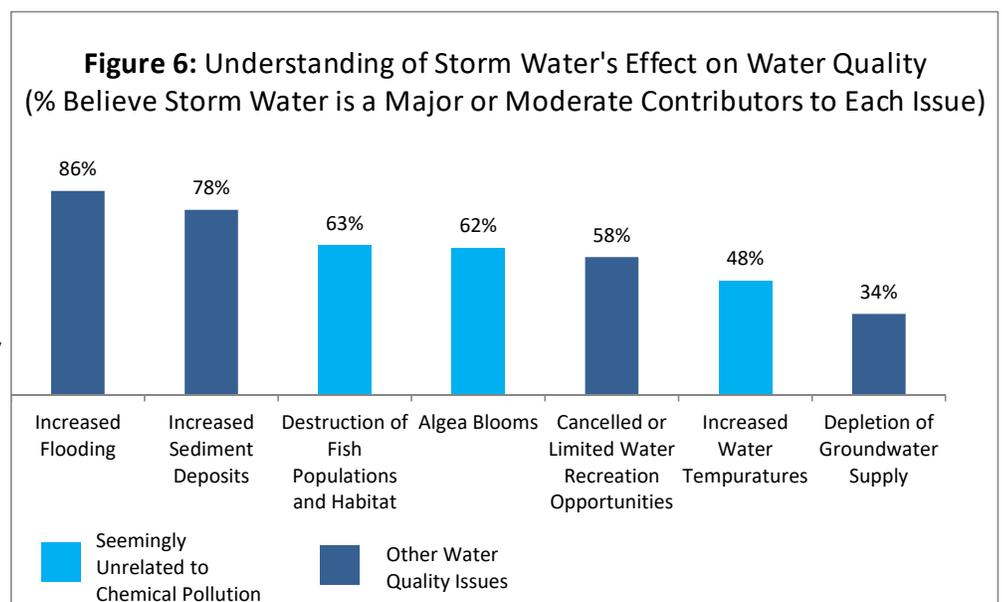
Porter County residents believe that everyone shares responsibility for protecting the environment and water quality. Eighty-eight percent of respondents agree or strongly agree with messaging to this effect (Figure 3, Q8). Furthermore, 79% agree or strongly agree with the statement "Individual actions of average citizens have a significant impact on the environment and water quality," (Figure 3, Q8) and only 3% of people self-report not taking any action to protect the environment (Q9).

Water Quality Knowledge & Behaviors



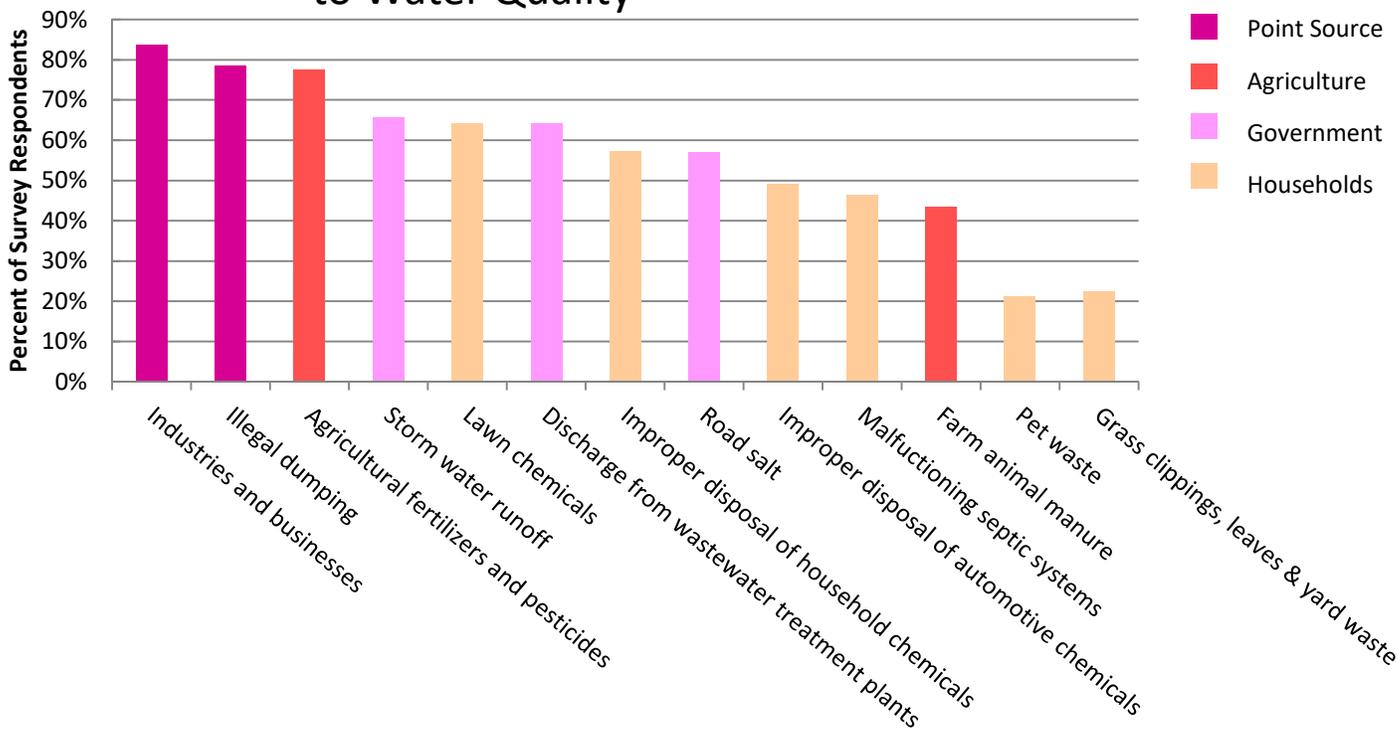
Based on the survey results, residents have a good understanding of storm water in Porter County. Seventy-eight percent understand that storm water flows directly into local waterways and 83% recognize that it is untreated (Q15, Q16). Most respondents further understand that storm water has an effect on local water quality. Eighty-one percent agree or strongly agree that “Storm water pollution can cause local waterways to become unsafe for drinking, swimming, or boating” (Figure 5, Q18).

Respondents also seem to understand the effect they personally can have on water quality. Eighty-two percent agree or strongly agree with the statement “What individuals do in their home and garden has consequences for the health of local waterways”, and 76% similarly agree that “Homeowners can help reduce storm water pollution.” (Figure 5, Q18). However, there is slightly less understanding about the role of storm water in contributing to specific water quality issues that



are (or seem to be) unrelated to chemical pollution (Figure 6, Q19). So, while residents understand that their actions have some effect on storm water and water quality, they don't quite know exactly what those effects are. Defining these impacts could be motivating to residents, given that they largely affect natural beauty and wildlife.

FIGURE 7: Perceived Major and Moderate Contributors to Water Quality

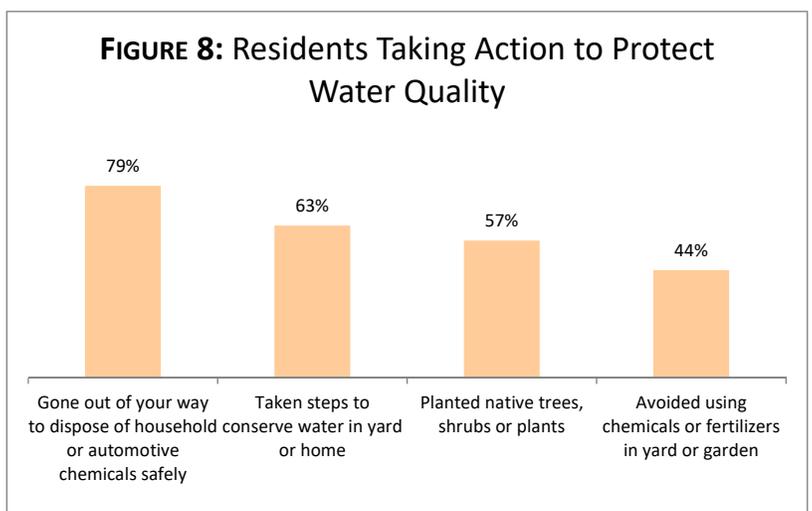


Despite acknowledging the effect of individuals' actions on water quality, survey respondents do not identify the average citizen as having a significant impact on water quality compared to other contributors. Instead, they identify factors that might be classified as point source pollution, resulting from agriculture, or the responsibility of government as having the largest impact on water quality (Figure 7, Q14). Most people have adopted some behavior that protects the environment (recycling, using environmentally friendly products, etc.)(Q9). But, when it comes to behaviors that directly affect water quality, only about half of respondents practice these behaviors (Figure 8, Q9).

Landscaping & Lawn Chemicals

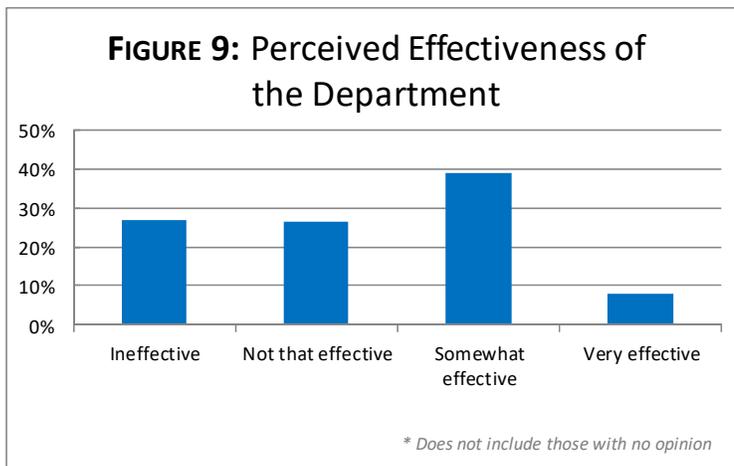
Most people (72%) understand the impact of fertilizers and pesticides used at home on local water quality (Figure 5, Q18) and 64% identify these chemicals as major or moderate contributors to water pollution (Figure 7, Q14). But only 44% avoid using these chemicals (Figure 8, Q9). It is possible that people do not appreciate the scale of the collective impact of these chemicals or are unaware of alternatives to chemical fertilizers and pesticides.

FIGURE 8: Residents Taking Action to Protect Water Quality



Similarly, 81% recognize that native plants help to improve water quality (Figure 5, Q18) and only 57% report planting native plants (Figure 8, Q9). Increasing the visibility of landscaping that uses native plants and/or providing more opportunities to purchase native plants could encourage the remainder of people to use natives in their landscaping.

Views of the Department of Development and Storm Water Management



Thirty-two percent of survey respondents don't know what they think about the effectiveness of the Department (Q20). Of the 352 respondents that do have an opinion, about half (47%) feel favorably about the department's effectiveness and half (53%) feel unfavorably (Figure 7, Q20). The majority (68%) feel that local government bears all or some responsibility for managing storm water running off private property and only 44% believe property owners bear all or some of that responsibility (Q17). Given that

survey respondents recognize their role in storm water pollution, this likely refers to the physical management of water flow. Based on data collected at public meetings, residents feel that services related to planning and engineering are the most important that the Department offers. They especially value *flood damage reduction planning* and the *storm water infrastructure maintenance program*. There is a sub-set of residents that do not feel they receive adequate service given the fee they pay or that the fee should not apply to their property (Q23). Nearly half (44%) of survey respondents do not recall receiving information regarding the storm water management program (Q21). The remainder of respondents recall receiving this information via direct mail, tax bill, and/or the newspaper (Q21).

Appendix C

Compost Site Activity Boone Grove, Valparaiso, and Portage

2017 through 2022

Year	Grass	Leaves - Loose	Brush	Mixed Yard Waste	Logs	Leaves - Compact	Christmas Trees	Other	Total Cubic Yards	Visitors
2017	1,809	4,671	40,271	3,025	2,262	10,248	145	1,630	64,061	25,336
2018	2,589	4,551	39,398	2,934	1,760	9,561	87	782	61,662	24,949
2019	2,381	5,569	42,631	3,383	1,709	14,400	144	657	70,874	29,258
2020	2,105	5,469	45,193	3,287	2,283	15,764	143	1,463	75,707	34,431
2021	2,729	5,886	49,936	3,184	4,161	14,345	264	553	81,058	35,691
2022	2,231	8,243	45,182	5,138	3,184	17,440	94	325	81,837	34,606

*The items are measured by cubic yards.

This table represents the compost sites managed by the District where the public has access.

Compost Site Activity

Boone Grove, Chesterton, Valparaiso, Portage

2017 through 2022

	Grass	Leaves - Loose	Brush	Mixed Yard Waste	Logs	Leaves - Compact	Christmas Trees	Other	Total Cubic Yards
2017	2,059	5,401	45,884	3,025	2,262	15,420	145	1,630	75,826
2018	2,779	4,721	44,798	2,934	1,760	14,527	87	846	72,453
2019	2,836	6,499	50,584	3,383	1,709	19,328	144	657	85,139
2020	2,495	7,029	52,513	3,287	2,283	19,842	143	1,463	89,055
2021	3,444	9,306	57,376	3,184	4,161	17,428	264	553	95,716
2022	2,616	8,613	49,535	5,158	3,184	21,812	94	325	91,337

*The items are measured by cubic yard.

This table represents all the compost sites managed by the District.

Appendix C

Porter County Recycling and Waste Reduction District Compost Site Visitors

Boone Grove, Valparaiso, and Portage Public Access Sites

	Valparaiso	Chesterton	Portage	Wheeler	South Haven	Kouts	Hebron	Boone Grove	Burns Harbor	Dune Acres	Beverly Shores	Porter	Pines	Ogden Dunes	Porter Co. Highway Dept.	Other	Businesses	Totals
Boone Grove	1,230	18	12	7	6	477	1,795	495	-	-	-	-	-	8	11	21		4,080
Valparaiso	27,265	976	434	308	2	265	154	18	25	2	25	-	5	2	434	4	337	30,256
Portage	64	198	1,099	1	2	-	-	-	33	17	85	-	5	202	-	2	11	1,719
2021 Total	28,559	1,192	1,545	316	10	742	1,949	513	58	19	110	-	10	204	442	17	369	36,055
Boone Grove	1,237	13	6	4	2	658	1,764	645	-	-	-	3	-	13	55	12		4,412
Valparaiso	26,052	644	301	154	12	176	144	9	16	-	15	37	2	1	177	217	327	28,284
Portage	79	233	1,580	-	1	-	-	-	34	21	55	56	7	175	1	7	142	2,391
2022 Total	27,368	890	1,887	158	15	834	1,908	654	50	21	70	93	12	176	191	279	481	35,087

Porter County Recycling & Waste Reduction District Classroom Education Outreach Students

MS4 Community	2018	2019	2020	2021	2022	Totals
<i>Chesterton</i>	789	735	580	751	1,617	4,474
<i>Hebron</i>	415	459	231	288	360	2,402
<i>Kouts</i>	218	172	57	310	241	1,516
<i>Lakes Conservancy and Valparaiso</i>	302	218	83	91	173	939
<i>Portage</i>	1,903	1,750	683	1,234	1,663	10,010
<i>Porter</i>	491	521	150	57	476	1,916
<i>Porter County</i>	2,441	2,518	888	1,489	1,346	11,743
<i>South Haven</i>	696	418	146	204	416	3,274
<i>Valparaiso</i>	1,711	1,674	378	1,029	1,214	7,723
Total	8,966	8,465	3,196	5,453	7,506	43,997

The Porter County row includes unincorporated areas such as Wheeler, Ogden Dunes, Boone Grove.

Appendix C

Porter County Recycling & Waste Reduction District Electronic Recycling Volumes in pounds

	Compost - Valparaiso	Valparaiso	Porter	Compost - Boone Grove	Other	Portage	Annual Total
2016	220,618	96,366	52,815	27,623	57,547	176,281	631,250
2017	204,992	89,541	49,074	25,667	53,471	250,515	673,260
2018	224,549	98,083	53,756	28,116	58,572	126,465	589,541
2019	248,164	108,398	59,409	31,072	64,732	167,305	679,081
2020	412,296			35,832		111,775	559,903
2021	322,089			14,702		81,267	418,058
2022	311,916			14,876		69,947	396,739

In 2016 and 2017, electronics from Valparaiso, Porter, Compost-Boone Grove and Other, were direct hauled to the collection point at Compost-Valparaiso and sent on for processing from there. The 2016 and 2017 volumes are projections based on volumes recorded when electronics were picked up from those sites.

In 2020, the Covid -19 Pandemic changed the way data was being collected and the reported volumes are the pounds of material that were collected at each site location.

Appendix C

Porter County Hazardous Waste Collection Historical Car Counts per Location

Year	Expo Center - 1	Portage - 1	Chesterton	Hebron	Kouts	Portage - 2	Expo Center - 2	Pines	Special HHW Drop Offs	Totals
<i>2011</i>	747	244	285							1,276
<i>2012</i>	795	487	426					323		2,031
<i>2013</i>	888	572	407					448		2,315
<i>2014</i>	740	907	412							2,059
<i>2015</i>	914	367	329	226		448	875			3,159
<i>2016</i>	380	344	266		210	294	412			1,906
<i>2017</i>	512	309	333	206		299	481			2,140
<i>2018</i>	489	366	392	n/a	179	356	541			2,323
<i>2019</i>	661	342	314	153	n/a	283	473			2,226
<i>2020</i>	469	Covid 19	365	n/a	112	Covid 19	586			1,532
<i>2021</i>	450	400	327	180	n/a	335	937			2,629
<i>2022</i>	328	266	174	n/a	85	202	535			1,590

Appendix C

Porter County Hazardous Waste Collection Historical Pounds per Location

Year	Expo Center - 1	Portage - 1	Chesterton	Hebron	Kouts	Portage - 2	Expo Center - 2	Pines	Extra Pickups	Totals	Tons
2011	45,744	12,788	14,067							72,599	36.30
2012	34,151	25,885	24,914					25,326		110,276	55.14
2013	73,354	44,787	29,486					30,785		178,412	89.21
2014	78,621	32,548	34,396							145,565	72.78
2015	61,031	38,833	32,913	15,557		41,379	62,060			251,773	125.89
2016	50,654	35,111	25,490		22,238	17,237	63,199			213,929	106.96
2017	42,131	25,356	19,646	17,473		21,488	34,386		4,530	165,009	82.50
2018	50,693	31,539	16,155		28,268	28,661	48,085		4,421	207,822	103.91
2019	51,599	19,267	17,137	12,132		11,968	33,663		12,315	158,081	79.04
2020	37,477	covid	18,128		12,303	covid	38,604		16,371	122,883	61.44
2021	28,731	20,053	8,404	14,251		22,140	34,601		3,987	132,167	66.08
2022	15,412	15,482	6,928		7,681	11,768	29,542		8,841	95,654	47.83