City of Kalamazoo

2015 Stormwater NPDES Permit Application

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Stormwater Jurisdicial Discharge Points

| Table 7 | IDEP | Enforcement | Iracking | l able |
|---------|------|-------------|----------|--------|
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Table 1

Table 8 Site Plan Review - Wellhead Protection and Stormwater Compliance Checklist

City of Kalamazoo Response to MDEQ Comments in Correspondence dated November 15, 2016 Titled "DEQ Staff Comments in Response to City of Kalamazoo Revised MS4 Permit Application Submitted on August 31, 2016": January 30, 2017

1. Provide the ERP

"The response explains how the City will track status, but still does not explain how the City will follow up on violations. Please include a procedure which provides the applicants' expected response to violations to compel compliance. Please include timeframes as appropriate."

Response:

The "procedure which provides the City of Kalamazoo expected response to violations to compel compliance" is to follow the previously submitted and approved Illicit Discharge Elimination Plan (IDEP) and the "Stormwater IDEP Enforcement Tracking Table," and to follow protocol in City of Kalamazoo Ordinances that are associated with water quality, provided in previous correspondences and available on-line; primarily: Chapter 29 of the City of Kalamazoo Code of Ordinances (Stormwater System), Chapter 30 of the City of Kalamazoo Code of Ordinances (Soil Erosion and Sedimentation), Ordinance 1825 (Wellhead Protection Overlay), and Ordinance 1826 (Performance Standards).

City Ordinances are designed by the City attorneys to provide the City with legal mechanisms to address the violations but also purposely designed to provide staff with a reasonable level of flexibility in timelines and methodology since each situation exhibits unique characteristics, amount of evidence, and level of known and potential severity.

In the intent to provide MDEQ satisfactory additional detail regarding the City's objectives in addressing Ordinance violations, the previously submitted "Attachment A: Stormwater IDEP Enforcement Tracking Table" has been revised (see attached) to include additional documentation fields for initial situation assessment, and if the situation warrants an ordinance related response – both with timelines.

28.-31. Construction Storm Water Runoff Control

"The response does not explain how the City insures that required Soil Erosion and Sedimentation Control Permits are obtained before construction begins. The procedure needs further clarification."

Response:

During Site Plan Review, it is the Building Department's responsibility to inform the developer/contractor that a Soil Erosion and Sedimentation Control (SESC) Permit is required or not. If it is, then they are required to show it on the site plan. Subsequently, the building inspectors complete a building plan review, using a checklist on the third page of the building permit (see attached). During this process, the inspectors are responsible to check if the SESC

Permit is issued or not, if all measures are in place on the plan, and finally to inspect the soil control measures in the field. Once the SESC Permits are issued and all soil erosion control measures are in place, then the inspectors will enter and track the inspections in the City's BS&A software system until the project is completed and the permits are closed out. Any further questions can be directed to Mr. Robert (Bob) McNutt, Building Official, Code Admin Manager, 269-337-8566. A revised document regarding Construction Stormwater Runoff Control is attached.

41. Post-Construction Storm Water Runoff Program

The City's statement that DEQ RRD staff David Harn and Alisa Lindsay serve at DEQ points of contact does not constitute a commitment to contact these staff in cases where postconstruction storm water practices need to be implemented in areas with existing soil or groundwater contamination. Please provide a statement that DEQ RRD staff will be consulted, and add this step to the City's review checklist."

Response:

DEQ RRD staff will be contacted for consultation in projects where stormwater infiltration is being proposed in areas with known existing soil groundwater contamination. Please see revised Site Plan Review Wellhead Protection and Stormwater Compliance Checklist.

70. Procedure Identifying BMPs at Facilities with Medium and Lower Potential for Discharge of Pollutants

"The City did not submit this procedure with the revised permit application, and stated that further information about exposure potential will be submitted by December 31, 2016. Please submit this procedure along with the other requested revisions."

Response:

The City has determined that other than the Metro Transit Facility and the Wastewater Treatment Plant – both having their own SWPPPs – no other facilities other than the Fleet Maintenance Facility, 415 Stockbridge Avenue, warrant a SWPPP. As requested by the MDEQ in an earlier correspondence, the Fleet Facility SWPPP has been revised to the newer MDEQ SWPPP template (see attached). The procedure selected to identify the need for BMPs at facilities with a "Medium and Lower Potential for Discharge of Pollutants" a facility chemical evaluation was completed by the Public Services Safety Coordinator. The result of this evaluation is attached and is titled "Report Name: Material Report Run Date: 1/24/17." All of the chemicals inventoried were at relatively low quantities and/or pre-packaged, within an enclosed/contained building, and reported to meet chemical storage requirements. This additional procedure has been added to the revised "Procedure for Updating the Existence, Location, Structural Stormwater Controls, and Potential to Discharge Pollutants to the Surface Waters of the State" (attached).

71.-74. Structural Storm Water Control Operation and Maintenance Activities "The City's procedure for catch basin cleaning is acceptable only as a preliminary protocol. The prioritization will need to be refined over time as catch basins are identified which need more frequent cleaning. Waiting until these catch basins fill up to the point



TABLE 1 **Stormwater Jurisdictional Discharge Points**

| Discharge Point ID | Location | Outfall_ID | Jurisdiction Receiving Discharge |
|--------------------|---------------------------|---------------|-------------------------------------|
| STMHKT18226JDP | Devonshire & Turwill | STOGKT18236 | KCRC |
| STMHKC18165JDP | W. Main & Drake | STOWKT18259 | MDOT |
| STMHKC18147JDP | W. Main & Northampton | STOWKT181019 | MDOT |
| STMHKC30119JDP | Seneca Ln. & Stadium | STOGKC30136 | MDOT |
| STMHKC29537JDP | Rambling & Stadium | STOWKC29360 | MDOT |
| STCBPC051JDP | Oakland & Kilgore | STOWAPC052 | City of Portage |
| STMHKC1078JDP | Prouty & N. Westnedge | STOWAKC102308 | MDOT |
| STMHKC101182JDP | Hopkins & Park | STOWAKT102030 | MDOT |
| STMHKC1084JDP | Lulu & N. Westnedge | STOWAKC102308 | MDOT |
| STMHKC10120JDP | Bosker & N. Westnedge | STOWAKC102308 | MDOT |
| STMHKC10124JDP | Harding PI & N. Westnedge | STOWAKC102308 | MDOT |
| STMHKC156JDP | Williams & N. Westnedge | STOGKC102100 | MDOT |
| STMHKC158JDP | Elizabeth & N. Westnedge | STOGKC102100 | MDOT |
| STMHKC1512JDP | Mabel & N. Westnedge | STOGKC102100 | MDOT |
| STMHKC1516JDP | Florence & N. Westnedge | STOWKC15459 | MDOT |
| STMHKC1520JDP | Lawrence & N. Westnedge | STOWKC15459 | MDOT |
| STMHKC1524JDP | Ada & N. Westnedge | STOWKC15459 | MDOT |
| STMHKC1672JDP | Ransom & N. Westnedge | STOWKC15459 | MDOT |
| STMHKC15684JDP | Willard & N. Westnedge | STOWKC15459 | MDOT |
| STMHKC162016JDP | Eleanor & N. Westnedge | STOWAKC162227 | MDOT |
| STMHKC15170JDP | Drexel Pl. & N. Park | STOWKC15459 | MDOT |
| STMHKC15158JDP | Frank & N. Park | STOWKC15459 | MDOT |
| STMHKC151065JDP | N. Burdick & Kalamazoo | STOWAKC152205 | MDOT |
| STMHKC15905JDP | Cooley & Kalamazoo | STOWKC15707 | MDOT |
| STMHKC16461JDP | Academy & S. Westnedge | STOWAKC162228 | MDOT |
| STMHKC16475JDP | South St. & S. Westnedge | STOWAKC162228 | MDOT |
| STMHKC22957JDP | Cedar & S. Westnedge | STOWAKC223501 | MDOT |
| STMHKC222243JDP | Lovell & S. Westnedge | STOWAKC223501 | MDOT |
| STMHKC22961JDP | Walnut & S. Westnedge | STOWAKC223501 | MDOT |
| STMHKC22963JDP | Dutton & S. Westnedge | STOWAKC223501 | MDOT |
| STMHKC21444JDP | Village & S. Westnedge | STOWAKC222500 | MDOT |
| STMHKC21446JDP | Village & S. Westnedge | STOWKC221141 | MDOT |
| STMHKC21448JDP | Minor & S. Westnedge | STOWKC221141 | MDOT |
| STMHKC21643JDP | McCourtie & S. Westnedge | STOWAKC212202 | MDOT |
| STMHKC151413JDP | Academy & S. Westnedge | STOWAKC151272 | MDOT |
| STMHKC151623JDP | Lovell & S. Park | STOWAKC151272 | MDOT |

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| Discharge Point ID | Location | Outfall_ID | Jurisdiction Receiving Discharge |
|--------------------|--------------------------------|---------------|-------------------------------------|
| STMHKC2239JDP | Cedar & S. Park | STOWAKC223501 | MDOT |
| STMHKC22173JDP | Walnut & S. Park | STOWAKC223501 | MDOT |
| STMHKC22159JDP | Dutton & S. Park | STOWAKC223501 | MDOT |
| STMHKC22261JDP | Ranney & S. Park | STOWAKC222500 | MDOT |
| STMHKC22251JDP | Ranney & S. Park | STOWKC221141 | MDOT |
| STMHKC221093JDP | Park Pl. & S. Park | STOWKC221141 | MDOT |
| STMHKC151099JDP | Farmer's Alley & E. Michigan | STOWAKC152204 | MDOT |
| STMHKC21670JDP | Pioneer & S. Westnedge | STOWAKC212201 | MDOT |
| STMHKC28552JDP | Grandview & S. Westnedge | STOWKC213012 | MDOT |
| STCBKC27811JDP | Montrose & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC28764JDP | Fairview & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC27676JDP | Fairview & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC27808JDP | Garland & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC28775JDP | Whitcomb & S. Westndege | STOWKC341010 | MDOT |
| STMHKC27799JDP | Whitcomb & S. Westnedge | STOWKC341010 | MDOT |
| STCBKC27757JDP | Fairfax & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC28789JDP | Whites & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC27851JDP | Whites & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC27330JDP | Howard & S. Park | STOWKC221397 | MDOT |
| STCBKC221721JDP | Emerson (extened) & S. Park | STOWKC221397 | MDOT |
| STMHKC221687JDP | Balch & S. Park | STOWKC221397 | MDOT |
| STMHKC221681JDP | Balch & S. Park | STOWKC221399 | MDOT |
| STMHKC33811JDP | Lynn (extended) & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC33821JDP | Parker & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC33114JDP | Denway & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC33113JDP | Denway & S. Westnedge | STOWKC341010 | MDOT |
| STMHKC33119JDP | Liberty & S. Westnedge | STOWAKC342500 | MDOT |
| STMHKC33122JDP | Oakhurst & S. Westnedge | STOWAKC342500 | MDOT |
| STMHKC34158JDP | Pratt & S. Westnedge | STOWAKC342500 | MDOT |
| STMHKC33140JDP | 4400 Block of S. Westnedge | STOWAKC342500 | MDOT |
| STMHPC041022JDP | Kilgore & S. Westnedge | STOWAKC342500 | City of Portage |
| STCBKC25125JDP | Cork & Sprinkle | STOGCT3013 | KCRC |
| STMHKC36123JDP | Easy St. & Sprinkle | STOWKC364 | KCRC |
| STMHKC36185JDP | Kilgore & Sprinkle | STOGKC366020 | KCRC |
| STMHKC14305JDP | 1100 Block of Gull Rd. | STOWKC15453 | MDOT |
| STMHKC14239JDP | Engleman & Riverview | STOWKC156000 | MDOT |
| STMHKC151200JDP | 800 Block of King Hwy. | STOWKC146513 | MDOT |
| STMHKC23723JDP | Branch & King Hwy. | STOWKC145 | MDOT |

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| Row | BMP/Action | Description/Method of Implementation | PPP | PEP | IDEP | CSC CSC | PCC | P2/GH | TMDL | Frequency/Schedule | Method of Evaluating Effectiveness | Progress |
| 1 | Enforcement Response Procedures (ERPs) | See Attachment A (Chapter 29 of City of Kalamazoo Code of Ordinances - Stormwater); Attachment B (Chapter 30 of Code - Soil Erosion and Sedimentation Control); Appendix A of Code, Section 8.3H (Site Plan Review); Section 10 (Violations, Penalties and Enforcement). | | | х | х | х | | | As needed. | Enforcement as necessary. | No enforcement actions were necessary in 2018-2019. |
| 2 | Public Participation/ Involvement Program | See Attachment B. | Х | | | | | | | See Attachment B | See Attachment B. | Public Noticed 2019 SWMP on www.protectyourwater.net Dec. 2019, the COK's main website, "View from the Curb" Spring 2020. Six stormwater related pages added to protectyourwater.net. KVCC will add the SWMP in future newsletters, social media and/or websites. |
| 3 | Public Education Plan | See Table 3. | | х | | | | | | See Table 3 | See Table 3. | See TABLE 5: Stormwater Public Education Plan 2016-17 Progress Report - Revision 201. Various Emails, website contacts and phone calls inquiring abou water quality issues directly or indirectly confirm PEP effectiveness. Public outreach via ProtectYourWater.net, radio ads, movies and social media ads for the years 2018-2019 is verified by the Analytical Metrics. Water Resources Public Survey las conducted in 2017. Since KVCC approved nesting under COK's permit Aug. 2019, no IDEPs have been reported. |
| 4 | Illicit Discharge Elimination Plan KVCC BMP5 | IDEP outfall screening; See Attachment C, Figures 3 and 4, Tables 1 and 4. | | | х | | | | | See Attachment C - IDEP (2016) for 4-year schedule for dry weather outfall screening and retention/detention basins. | See Attachment C - IDEP (2016) for dry weather screening program, and Attachments K (updated 2019), L2 (2016), and M2 (2016) for inspection/maintenance programs. | See IDEP trouble report list, Tables 2, 3, 4, 6 and 8, and Figures 1, 2, 3, 4, 5, 6, and IDEP Plan text section 2018-2019: 169 of the 354 COK stormwater outfalls were investigated. Staff maintained/revised the IDEP Outfall Inspection Status Summary Database to track outfall evaluations. Status of Known Illicit Connections summarizes connections/discharges. Performed general on-site evaluations of 12 municipal pretreatment controls, and inspected 6 of 7 accessible municipal retention ponds. Since KVCC approved nesting under COK's permit Aug. 2019, the outfalls have not been investigated. |
| 5 | Construction Stormwater Runoff Control Program | Continue Soil Erosion & Sedimentation Control Program. Per Ordinance 1790, permit and enforce soil erosion and sedimentation controls associated with construction sites, per Part 31. Both the City's Code Enforcement Division and the Engineering Division are APAs for Part 91, addressing construction sites and street/utility work, respectively. | | | | х | | | | Continue APA status for enforcing Act 91. | See Construction Stormwater Runoff Control, permit application Questions 28- 31 (Revision January, 2017), and Map of Designated Areas of Snow Plowing and Street Sweeping. Continued certification for APA status; number of Permits issued; enforcement of Ordinances and policies; reduction in TSS. | Continued APA status for enforcing Act 91, and the COK Code of Ordinances: stormwater IDEP (Chap. 29 of Code), Soil Erosion & Sedimentation Control Program (Chap. 30 of Code), and Zoning Ordinance (Appendix A). Effective response to complaints and enforcement of relevant ordinances. |
| 6 | Documentation of Post- Construction Stormwater Control for New and Redevelopment Projects. | Current: Performance Standards for Groundwater Protection within Wellhead Protection Capture Zones and Stormwater Quality Management (Ordinance No. 1826); Pending: Updates. | | | | | x | | | Continuous. Updated October 1, 2015 | See Attachment H Post-Construction Runoff Program (permit Questions 32- 59). Effective use and enforcement of Ordinance; Ordinances and Performance Standards updates in 2015. | Continued existence and enforcement of Ordinances primarily via the Site Plan Review (SPR) process and responses to individual issues. SPR continues as the Regulatory mechanisms implementing the COK Code of Ordinances: stormwater IDEP (Chap. 29 of Code), Soil Erosion & Sedimentation Control Program (Chap. 30 of Code), Zoning Ordinance (Appendix A), and Performance Standards (Ordinance 1826). Infiltration through contaminated soil is not allowed per SPR. |
| 7 | Continue Site Plan Review process using the Wellhead Protection Zoning Overlay Ordinance and Performance Standards Ordinance. | Per Ordinances 1825 and 1826, require stormwater pre-treatment prior to discharge into the City's MS4 or directly into the surface waters. Appendix A of Code, Section 8.3. Pending: Updates for Performance Standards. | | | | x | х | | | Continuous. Updated October 1, 2015 | Number of site plans reviewed; number of required pre-treatment BMPs; number of natural BMPs; reduction in TSS; Ordinances and Performance Standards updates in 2015. | In 2018-2019 there were 168 pre-Site plan Reviews (SPR) which resulted in 129 approved SPRs including installation of 28 infiltrations ponds, 59 treatment units /chamber systems. SPR process was completely revised and enhanced 2017-2019 with new checklists and multi-department interconnected computer programs. |

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| Row | BMP/Action | Description/Method of Implementation | PPP | PEP | IDEP | Minimum Meas | PCC | P2/GH | TMDL | Frequency/Schedule | Method of Evaluating Effectiveness | Progress |
| 8 | Employee and Contractor Training. | Continue use of the Excal DVD "Storm Watch Municipal Storm Water Pollution Prevention" and/or the EGLE DVD "Storm Water Employee Training" for employee training. In addition, the Technician 3 staff will watch the more specific IDEP focused DVD "Illicit Discharge Detection & Elimination A Grate Concern." | | | | | | х | | All staff within 5 year Permit cycle. New hires within 1 year of hire. Contractors to begin viewing Storm Watch DVD in 2016 if they do not have staff with Stormwater Certification. | Number of employees trained; integration of stormwater control requirements into bid specifications. Contractor training/certification documentation. | In 2018 & 2019, 81 new COK Water Resources employees received training on stormwater related topics and viewed our professional videos on IDEP and pollution prevention. The Wastewater Division also mandates stormwater IDEP and prevention training for all personnel annually. Copies of DVDs were provided to Division and Section Managers whose employees were appropriate to view at least one of the DVDs. Contractors required to have training if not stormwater certified. Training records are located at the Harrison Facility and City Hall and are available upon request. |
| 9 | List structural Stormwater Controls (pre-treatment units). | List by Table all municipally owned properties with stormwater structural controls (pre-treatment units). | | | | | | х | X | Continuous maintenance of list of municipal properties and structural stormwater controls with locations. | See Procedure for Updating and Revising the Existence, Location, Structural Stormwater Controls and Potential to Discharge Pollutants to the Surface Waters of the State (January 2017). Completion of list with locational information; maintenance of updated list. See also Attachments K (updated 2019), L2 (2016), and M2 (2016) for inspection/maintenance programs. | See Table 4: 2019 Stormwater Outfall Status. A complied list of structural stormwater controls/locational and maintenance information is ongoing. Stormwater trouble reports are maintained. |
| 10 | Inspect, perform maintenance, and evaluate all Stormwater Controls (pretreatment units). KVCC BMP6 | Annual year plan to inspect, perform maintenance and evaluate for effectiveness each City-owned stormwater control (pre-treatment unit) identified within the SWMP. | | | | | | х | x | Annual Inspection & Maintenance | See Attachments K (updated 2019), L2 (2016), and M2 (2016) for inspection/maintenance programs. | In 2011, all non-Public Services Department organizations responsible for municipal stormwater pretreatment structures were notified of their obligations to perform annual inspections and any needed maintenance. These structures are inspected by Division staff and required maintenance is performed by the Field Services Division. 2018-2019: 169 of the 354 COK stormwater outfalls were investigated, x catch basins cleaned. The vactor truck became active summer 2018. COK maintains tracking records for updating and prioritizing the cleanouts. Since KVCC approved nesting under COK's permit Aug. 2019, the raingardens have been maintained and overflow filters cleaned. |
| 11 | Continue street sweeping program. KVCC BMP2 | Use one to two up to three Elgin Pelican series street sweepers to clean streets. A contractor removes the dumpsters that the sweepers deposit the debris in and delivers it to a Class II landfill. The same contractor tracks the volume of the debris accumulated. | | | | | | x | x | On average, weekly sweeping for downtown area, and two to three times annually for the remaining City. | See "Additional Permit Information August 2016, Street Sweeping Policy Presented as a Supplement to Table 2 (SWMP 2016), Construction Stormwater Runoff Control, permit application Questions 28-31 (Revision January, 2017), and Map of Designated Areas of Snow Plowing and Street Sweeping. Number of sweepings, pounds of material collected and disposed; reduction in TSS. | 2018-2019: weekly sweeping for downtown area, and two to three times annually for the remaining City were accomplished on average. The volume of material collected was total of 598 cubic yards of solid waste in 2018 and 2019, respectively. A 3rd street sweeper was added in 2018. All material was dispose of at a Type II Landfill. Since KVCC approved nesting under COK's permit Aug. 2019, street sweeping was not conducted. |
| 12 | Continue Leaf Collection Program. KVCC BMP3 | Residents are asked to rake their leaves in the late fall into the edge of the street in accordance with a published schedule. City crews then use a combination of tractors, front-end loaders and compactor trucks to collect the leaves. Cycle is repeated (weather permitting). Collected leaves are hauled and deposited at a city composting facility. | | | | | | х | х | Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | Volume of leaves collected and disposed; estimated pounds of phosphorus prohibited from entering surface waters and clogging storm sewers; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling"; reduction in phosphorus loadings. | In 2018-2019 an average of 11,000 cubic yards of leaves were collected for each year (22,000 cubic yards total). The leaves are composted and given away free of charge. The "View from the Curb" was published twice a year for the period 2018-2019. All associated publications continue to be updated and distributed. Since KVCC approved nesting under COK's permit Aug. 2019, leaf collections was contracted out. |
| 13 | Continue Brush Pick-up Program. KVCC BMP3 | A private contractor currently performs brush collection once a month from May through October on the same day as bulk trash (see below). Residents are asked to place bundled brush in the curb lawn for collection in accordance with the published monthly bulk trash collection schedule. | | | | | | х | х | Per published monthly schedule from May through October on the same day as bulk trash. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | Volume of brush collected; estimated pounds of phosphorus prohibited from entering surface waters, and clogging storm sewer; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling"; reduction in phosphorus loadings. | In 2018-2019 439 tons of brush were picked up. The "View from the Curb" was published twice a year for the period 2018-2019. All associated publications continue to be updated and distributed. Since KVCC approved nesting under COK's permit Aug. 2019, inhouse trimming of a few trees was completed. |

| Column > | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
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| Row | BMP/Action | Description/Method of Implementation | PPP | PEP | IDEP | Minimum Meas | ures PCC | P2/GH | TMDL | Frequency/Schedule | Method of Evaluating Effectiveness | Progress |
| 14 | Continue Bulk Trash Collection Program. | A private contractor performs bulk trash collection for the City. Curbside collection is provided to residential properties with four units or less. All other properties must contract individually with private companies for trash removal. Residents place bulk trash near the curb for collection in accordance with a published schedule. A limit of 7.7 cubic yards per property per month is currently in place. | | | | | | х | | Monthly, per published schedule. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | Volume of bulk trash collected; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | In 2018-2019 2,133 tons of bulk waste/trash were picked up. The "View from the Curb" was published twice a year for the period 2018-2019. All associated publications continue to be updated and distributed. |
| 15 | Catch Basin/Inlet Cleaning. KVCC BMP7 | Due to budget/staff constraints, there is currently no- scheduled stormwater catch basin/inlet cleaning- program. However, A dedicated vactor truck and crew for the city-wide cleanout plan of all catch basins/inlets, and manholes was initiated in 2018. Also, cleanings are performed on a requested and urgently needed basis (e.g., localized flooding), and associated with IDEP investigations as needed. Waste collected is by vactor trucks or by hand and are disposed of at the Wastewater Treatment Plant, unless it is determined that it be necessary to dispose of it at a Type II Landfill or by a certified hazardous waste hauler determined location. | | | | | | х | Х | In 2018, the COK obtained one dedicated vactor truck and crew for our city-wide cleanout plan of all catch basins/inlets, and manholes. One cycle of the cleanout plan is estimated between 10-20 years. | See Attachments K (updated 2019), L2 (2016), and M2 (2016) for inspection/maintenance programs. All catch basins will need to be cleaned out when the sediment level in the sup reaches between 1/3 and 1/2 full based on sediment depth using rods. | In 2018-2019 hundreds of catch basins were cleaned. Stormwater cleanouts produces 349,711 gallons of liquid waste and 1,576 tons of sands. The vactor truck became active summer 2018. COK maintains tracking records for updating and prioritizing the cleanouts. The material is disposed from the Harrison Street Facility. Since KVCC approved nesting under COK's permit Aug. 2019, catch basin/inlets cleaning was not completed. |
| 16 | Snow and Ice Removal Program. KVCC BMP1 | The City applies rock salt, rock salt with liquid calcium chloride, rock salt with sand mix, a prewetting de-icing material, and is experimenting with beet juice to maintain safer roadway travel while reducing rock salt usage. Product use is largely dependent upon weather conditions. Other agricultural products, such as corn-based products, are also being evaluated. In addition, the Kalamazoo Mall uses a snowmelt system instead of salting. | | | | | | х | | As needed. | See City of Kalamazoo Snow Plowing 2016, Construction Stormwater Runoff Control, permit application Questions 28-31 (Revision January, 2017), and Map of Designated Areas of Snow Plowing and Street Sweeping. The amount of rock salt and sand mix used under appropriate conditions. Strategy to reduce the use of sand | In 2018-2019 approx. 12,246 tons of road salt were brought in and 11,765 tons were taken out for road salting (difference of 481 tons in storage). The COK finished evaluations of using beet juice or agricultural products for road salting and determined these options were not viable given the cost compared to rock salt. Since KVCC approved nesting under COK's permit Aug. 2019, these services were contracted. |
| 17 | Continue Use of Enclosed Salt Storage Facility. | Rock salt is stored in an enclosed above-ground salt storage facility with a capacity of 7,000 tons, above the 100-year flood plain elevation. | | | | | | x | | Continuous: Use enclosed salt storage facility located at the Harrison Street Facility. | Continued use of enclosed above-ground facility; compliance with SWPPP for wastewater treatment plant. | Continued use of the Harrison enclosed, above-ground salt storage facility, and compliance with the SWPPP. |
| 18 | Continue implementation of SWPPP for the 415 Stockbridge Avenue Facility. | Since this the fleet maintenance operation at this location meets the criteria for which a SWPPP is necessary, one was prepared and updated in 2017. | | | | | | х | | Continuous: Fleet Director or representative to maintain stormwater certified operator status, implement inspections and continue BMPs. | Attachments K (updated 2019), L2 (2016), and M2 (2016) for inspection/maintenance programs. Acquired Stormwater Certified Operator License(s); number of inspections; number of BMPs implemented; overall SWPPP compliance. | See 2017 revised SWPPP for Fleet Services at the Stockbridge Facility. Continued implementation of SWPPP, monthly inspection of facility, record updates, etc. The COK currently has 11 Certified Stormwater Operators. |
| 19 | Continue Recyclable Material Collection Program. | There are three components to the City's residential recycling program: weekly curbside residential collection for all residential properties with four units or less; multi-unit collection for those property owners or managers willing to participate; and a recycling drop-off facility is available to all citizens. | | | | | | х | | Annual evaluation to continue program. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | Volume of materials collected and number of participants; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | In 2018-2019 approx. 4,360 tons of recycled waste were picked up from approximately 11,000 households each year (~32-35%). All associated publications continue to be updated and distributed. |
| 20 | Continue Household Hazardous Waste Collection. | City residents are able to dispose of their hazardous waste at the Kalamazoo County Household Hazardous Waste Center, 1301 Lamont Avenue, free of charge. Each year the City enters into a contract with Kalamazoo County, which shares proportionally the cost with all participants to operate the program. | | | | | | х | | Re-evaluate and propose renewal of contract on an annual basis. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling." | Continued contracts with Kalamazoo County; volume and type of materials collected and number of participants; continued Bi-Annual publication and COK website ads of "A View From the Curb The City's Guide to Waste & Recycling." | In 2018-2019 approx. 5,000 participants from the COK utilized disposal services of the HHWC. The COK continues to contract with Kalamazoo County for waste collection and participation continues to grow. All associated publications continue to be updated and distributed. Please contact Kalamazoo County for specific details regarding type of materials collected and associated volumes. |

| Column > | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------|--------------|------|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | Minimum Meas | ures | | | | | |
| Row | BMP/Action | Description/Method of Implementation | PPP | PEP | IDEP | csc | PCC | P2/GH | TMDL | Frequency/Schedule | Method of Evaluating Effectiveness | Progress |
| 21 | Environmental Safer Products. | The City Commission Policy for "Procurement of Recycled & Environmentally Friendly Products" is provided as Attachment 1. | | | | | | х | | Continue current policy; 2016:- Review and consider- updates/revisions. | Continuation and/or enhancement of existing policy. | The COK continues with the stated methods and enforcement policies. No updates have occurred since 2016 except the COK discontinuance of glyphosate herbicides since March 2019. |
| 22 | Waterway Vegetative Buffers. | Continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day." | | | | | | х | | Continue current policy; 2015: Review and consider- updates/revisions. By 2015, incorporate specifications into- lawn mowing contracts-for- subcontractors. | Continuation and/or enhancement of existing policy; number of existing vegetative buffers maintained and new ones installed along waterways. Incorporation of specifications into contracts. | The COK continues with the stated methods and enforcement policies. No updates have occurred since 2016. All specifications were incorporated into our contracts. Maintained existing buffers (e.g. South Crosstown Ponds & Milham Park). |
| 23 | Lawn Care Guidelines. KVCC BMP3 | Continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day." | | | | | | х | | Continue current policy; 2016:- Review and consider- updates/revisions. By 2017, incorporate specifications into- lawn mowing contracts for- subcontractors. | Continuation and/or enhancement of existing policy. Effective communication with lawn maintenance employees and temporary seasonal hires regarding policy. Incorporation of specifications into contracts. | The COK continues with the stated methods and enforcement policies. No updates have occurred since 2016. All specifications were incorporated into our contracts. Perform annual training day in Parks & Recreation for staff |
| 24 | Reduction of Pesticides, Herbicides, and Fertilizers. KVCC BMP4 | The City has a "Pesticide/Herbicide Advisory Committee" to monitor the use of pesticides and herbicides in the City and recommend policies and guidelines. Also, continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day." | | | | | | х | х | Continue current policy: Review and consider updates/revisions. | See Attachments P for pesticide information, and N " TMDL Implementation Plan". Continuation and/or enhancement of existing policies. | TMDL Implementation Plan continues. On March 21, 2019 the COK removed all sources and supplies of Round Up and/or any product containing Glyphosate and/or 2-4-D. Replacement products were recommended containing an ammonia salt product or sodium nitrate in various concentrations. All contractors continue to be licensed for chemical use. Since KVCC approved nesting under COK's permit Aug. 2019, no BMP changes occurred. |

PPP - Public Participation/Involvement Program

PEP - Public Education Program

CSC - Construction Stormwater Runoff Control Program

IDEP - Illicit Discharge Elimination Program

PCC - Post-Construction Control Stormwater Runoff Program

TMDL - Total Maximum Daily Load Implementation Plan

Response to MDEQ Comments in Letter dated May 20, 2016 Described in "Appendix 1: Comments on City of Kalamazoo MS4 Permit Application" Regarding City of Kalamazoo 2015 Application for Reissuance of the NPDES MS4 Permit (Updated 2021)

Additional Information to Supplement Textual Response

Questions 60 - 84

Attachment K:

1. "Work Practice to Update Stormwater Asset Inventory and Mapping"

Attachment L2:

2. "Procedure for Updating and Revising the Existence, Location, Structural Stormwater Controls, and Potential to Discharge Pollutants to the Surface Waters of the State"

Attachment M2:

- 3. "Stormwater System Operations and Maintenance Plan"
- 4. "Stormwater System Cleaning Tracking Table" Example
- 5. "Outfall Stormwater Sewershed Map" Example

Table 2:

- 6. Table "Municipal Operations/Good House-Keeping for Pollutants, BMPs and Stormwater Program Assessment"
- 7. "Street Sweeping Policy"

Figure 7:

8. Figure "Designated Areas for Snow Plowing & Street Sweeping"

MUNICIPAL OPERATIONS/GOOD HOUSE-KEEPING BMPS, POLLUTANTS, AND STORMWATER PROGRAM ASSESSMENT Presented as a Supplement to Table 2 (SWMP)

| вмр | Pollutant of Concern | Other Issues/Concerns | Annual Assessment |
|-----------------------------------------------------|--------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------|
| Winter Road Maintenance - Snow and Ice Removal | Salts, Sediment | Street Safety | Best materials and least amounts being used to meet program objectives |
| Salt Storage | Sodium, Chlorides | Storage Facility Maintenance | Regulatory Compliance |
| Street Sweeping and Cleaning | Salt, Sediment, Hydrocarbons | Traffic Control | Adequate Street Coverage, Methods, and Disposal Practices |
| Catch Basin/Inlet and Storm Main Cleaning | Salt, Sediment, Hydrocarbons | Traffic Control | Adequate Progress, Methods, and Disposal Practices |
| Soil Erosion/Sedimentation | Sediment, Phosphorus | Street Safety | Ordinance/Permit Compliance |
| Structural Controls | Sediment/Various | Stormwater Storage and Treatment | Inspections/Response to Needs |
| Leaf Collection Program | Phosphorus/Organic Matter | Street Safety, Stormwater Impediment | Volume Collected and Adequacy of Methods and Schedule |
| Brush Pick-up Program | Phosphorus/Organic Matter | Street Safety, Stormwater Impediment | Volume Collected and Adequacy of Methods and Schedule |
| Bulk Trash Pick-up Program | Debris/Mixed | Street Safety, Stormwater Impediment | Volume Collected and Adequacy of Methods and Schedule |
| Recyclable Material Collection Program | Paper, Glass, Plastics | | Volume Collected and Adequacy of Methods and Schedule |
| Household Hazardous Waste Collection Program | Household Chemicals | Chemical Exposures with Illicit Dumping | Currency of Contract, Volume Collected |
| Pesticides, Herbicides, and Fertilizer Applications | Pesticides, Herbicides, Phosphorus, Nitogen | Chemical Exposures with Illicit Dumping | Policies to Minimize Use/Effectiveness |
| Fleet Services | Oils, Greases, Hydraulic Fluids, Solvents, Gasoline | UST Management/Safety, Staff Exposures and Safety | See SWWP; Safety Management; Waste Disposal Practices |

Street Sweeping Policy Presented as a Supplement to Table 2 (SWMP)

Street sweeping is only to be performed during dry weather if possible.

Sweepers are to be operated at manufactured requested optimal speed level to increase effectiveness.

Sweepers are to be adequately maintained per manufactured recommendations and determined needs.

Staff equipment use training will be provided for all sweeper vehicle drivers.

Materials from the street sweepers will be stored at dedicated dumpsters and transported to the 1415 N. Harrison Street Facility where it is dewatered, sampled and analyzed for landfill acceptance, and transported to a Type II Landfill.

Accurate logs of:

- Date work performed
- Streets swept
- Sweeper crew identification
- Sweeper vehicle use identification
- Emergency contacts
- City covered area associated with boundary sections (from City-prepared street sweeping and Snow Plowing Section Map)
- Number of material dumps
- Location of dumpsters
- Material storage
- Material disposal records

Schedule

The current schedule of street sweeping is weekly for the "downtown" area, approximately defined as Area 1 on the attached map titled "City of Kalamazoo Snow Plowing 2016." The remaining portions of the City (Zones 2 through 10) are swept approximately every 3 weeks.

Street sweeping is also performed as necessary when construction or utility work activities result in excessive sediment on the streets (e.g. water main breaks).

Reference: "City of Kalamazoo Snow Plowing 2016" or any updated subsequent figure showing defined zones.



TABLE 3: Stormwater Public Education Plan - Revised 8-2016, Updated 1-2021

| Column > | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Row | Public Education Topic | Key Messages | Target Audiences | Delivery Mechanism or Activity | Timeline for Development | Timeline for Implementation | Responsible Party | Evaluation Method |
| 1 | Public Responsibility and Stewardship in Watershed | Definition of a watershed; education on specific watershed(s) that public can affect, purpose for protecting watershed; ways human activities can affect watersheds. | Broad Audience: Residents, visitors, public employees, students; businesses, institutions, construction contractors, and developers. | City's protectyourwater.net (PYW) website; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations (EnviroScape), static displays; material distribution (e.g. "Storm Watch," "Brown Water, Green Weeds" brochures, sponges). KVCC Ref. B, C, E, G, H & I | Continue operation and maintenance (O & M) of PYW Website. Annual review and O & M of classroom presentation materials and models, static display; and distribution materials. | 2019-21 significant upgrades to PYW Website. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. | City of Kalamazoo (COK) Water Resources Division (WRD) staff. Other participants may include: Kalamazoo River Watershed Council (KRWC); Total Maximum Daily Load (TMDL) Steering Committee; the Environmental Concerns Committee (ECC); the Kalamazoo Area MS4 Collaborative Stormwater Group (KSWG- MS4 Group); and Wellhead Protection Program (WHPP) Committee. | Enhancements to, O & M of, and visits to City's website; number of presentations/facility tours, materials distributed, events participated in; general feedback received from community. 2022 4th Community Water Resources Public Survey. KVCC Reference F |
| 2 | Ultimate Stormwater Discharge Location and Potential Impacts | Discharges to surface water and potential water quality impacts. | Residents, visitors, public employees, students, businesses, construction contractors, and developers. | Maintain stormwater asset markers, and consider additional locations. online GIS shows stormwater assets, including outfalls. Site Plan Review meetings. Distribution of IDEP Brochure. KVCC Reference D | Already developed and implemented stormwater asset marker plan, and online GIS and will continue updating periodically. Will continue to communicate to contractors during the Site Plan Review process the importance of understanding ultimate discharge locations and potential impacts. | Completed - Implemented approximately 420 markers to selected catch basins/inlets; O & M and additional markers to continue based on need and resources. 55 read "No Dumping Drains to Lake" and the rest read "No Dumping Drains to River." 2020 additional markers installed. Quarterly updates to online GIS stormwater map. Weekly communication with contractors during the Site Plan Review process RE: the importance of understanding ultimate discharge locations and potential impacts. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Number of markers installed and maintained. Continued availability of online GIS; and website; continued presentations and model demonstrations; distribution of IDEP Brochure. 2022 - 4th Community Water Resources Public Survey. |
| 3 | Public Reporting of Illicit Discharges | Definition of illicit discharges/connections; illicit discharges can adversely impact surface and groundwater; importance of, and how to detect and report known and suspected illicit discharges to County, City and/or EGLE; City ordinances. | Residents, visitors, public employees, students, businesses, construction contractors, and developers. | City's main website & PYW website, City's annual CCR; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations, static displays; material distribution (e.g. "Storm Watch," "Brown Water, Green Weeds" brochures, sponges). Internal communication / protocol regarding roles & responsibilities in handling reports (e.g. Hazmat Team and staff support). 2020 development of 311 call center includes IDEP reporting. Updated IDEP Brochure for citizens, and staff training. | Already developed: websites; CCR; View from the Curb; classroom presentation format and models; static display; staff training, IDEP Brochure, and some materials for distribution (e.g., handouts, sponges); use the P & A slogan "What gets to the street, gets to the creek!"; and IDEP tracking system (from 2017). | Completed: IDEP recording tracking system. Annually (one minimum) classroom presentations and/or model demonstrations, P & A slogan "What gets to the street, gets to the creekt" on PYW website. Annually - Training for new staff within 1 -year; all staff training within permit period. 2020 initiated 311 call center. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Existence of a public reporting system. Number of reports received/logged; number of responses to calls; number of, and variety of strategies to inform public on the importance of and how to report illicit discharges and connections. Implementation of staff training. 2022 - 4th Community Water Resources Public Survey (if EGLE grant funding received). |
| 4 | Promote Preferred Cleaning Materials and Procedures for Car, Pavement, and Power Washing | Environmentally friendly cleaning materials, and procedures for washing cars, pavement, and power washing. | Residents, visitors, public employees, students, businesses, construction contractors, and developers. | City's websites; movie ads, radio ads, social media campaign, CCR, KSWG-MS4 Group; View from the Curb; classroom presentation format and models; static display, staff training. Internal communication/protocol regarding use of BMPs; distribution and/or reference of EGLE guide for Power Washing. KVCC Ref. C, G, H & I | Already developed: websites; movie ads, radio ads, social media campaign, CCR; A View from the Curb; classroom presentation format and models; static display; staff training, IDEP Brochure, and some materials for distribution (e.g., handouts, sponges); use the P & A slogan "What gets to the street, gets to the creek!". | 2019-21 significant upgrades to PYW Website. Annually in March - Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad campaign. March and/or September - View from the Curb; Annually CCF, KSWG-MS4 Group outreach. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Enhancements to, O & M of, and visits to City's website; premovie ads; radio ads; social media campaign; number of presentations/facility tours; materials distributed; events participated in; general feebback received from community. 2022-4th Community Water Resources Public Survey (if EGLE grant funding received). KVCC Reference F |
| 5 | Inform and Education the Public on Proper Application and Disposal of Pesticides, Herbicides, and Fertilizers | Improper disposal of chemicals can adversely impact surface water/ importance of using the Kalamazoo County Household Hazardous Waste Center; best management practices (BMPs) can prevent adverse impacts to surface water. | Residents, visitors, public employees, students, businesses, construction contractors, and developers. | City's PYW website; pre-movie theater ads/online streaming; radio ads; social media campaign; City's annual CCR; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations (Groundwater Simulator and EnviroScape), static displays; material distribution. KVCC Ref. C & I | Already developed: websites: movie ads, radio ads, social media campaign, CCR, KSWG-MS4-Group; View from the Curb; classroom presentation format and models; static display; staff training, IDEP Brochure, and some materials for distribution (e.g., handouts, sponges); use the P & A slogan "What gets to the street, gets to the creek!". City added new website links in 2019. | Annually - Disposal contract with Kalamazoo County Household Hazardous Waste Center. As opportunity exists - Distribute materials (e.g., "Slorm Watch" and "Brown Water, Green Weeds" brochures, sponges), and use the P & A slogan "What gets to the street, gets to the creek!" 2019-21 significant upgrades to PYW Website. Annually in March - Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Number of website visitors; continued contract with Kalamazoo County for Household Hazardous Waste Collection Center use; number of educational presentations and demonstrations discussing stormwater, number and type of material distribution; confinued movie theatre ads, radio ads, social media campaign; new or enhanced website links. 2022 - 4th Community Water Resources Public Survey (if EGLE grant funding received). KVCC Reference F |
| 6 | Promote Proper Disposal Practices for Grass Clippings, Leaf Litter, and Animal Wastes that May Enter the MS4 | Keep yard and pet waste from getting to the street/storm inlets to prevent negative impact to surface waters. | Residents, visitors, public employees, students, businesses, construction contractors, and developers. | City's PYW website; pre-movie theater ads/online streaming; radio ads; social media campaign; City's annual CCR; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations (Groundwater Simulator and EnviroScape), static displays; material distribution. KVCC Ref. C & I | Already developed: websites: movie ads, radio ads, social media campaign, CCR, KSWG-MS4 Group; View from the Curb; classroom presentation format and models; static display; staff training, IDEP Brochure, and some materials for distribution (e.g., handouts, sponges); use the P & A slogan "What gets to the street, gets to the creek!". City added new website links in 2019. | 2019-21 significant upgrades to PYW Website. Annually in March Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Decrease in debris in streets/collected by street sweeper. Enhancements to, O & M of, and visits to City's website; premovie ads/online streaming; radio ads; social media campaign; number of presentations/facility tours; materials distributed; events participated in; general feedback received from community. 2022 4th Community Water Resources Public Survey (if EGLE grant funding received). KVCC Reference F |



TABLE 3: Stormwater Public Education Plan - Revised 8-2016, Updated 1-2021

| Column > | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Row | Public Education Topic | Key Messages | Target Audiences | Delivery Mechanism or Activity | Timeline for Development | Timeline for Implementation | Responsible Party | Evaluation Method |
| 7 | Identify and Promote the Availability, Location, and Requirements of Facilities for Collection or Disposal of Household Hazardous Wastes, Travel Trailer Sanitary Wastes, Chemicals, and Motor Vehicle Fluids | Improper disposal of chemicals and solid waste can adversely impact surface water, availability of and importance of using the Kalamazoo County Household Hazardous Waste Center and the City's solid waste collection services (e.g., leaf, brush, bulk trash, and recyclables). | Residents, visitors, public employees, students; businesses, institutions, construction contractors, and developers. | Contract with Kalamazoo County for Household Hazardous Waste Center use; Cify's PTW website; City's pre-movie theater ads/online streaming; radio ads; social media campaign; City's annual CCR; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations (Groundwater Simulator and EnviroScape), static displays; material distribution. KVCC Ref. C & I | Already developed: contract with Kalamazoo County; websites; two pre-movie theatre/online streaming ad specifically addresses issue; radio ads; social media campaign; View from the Curb; presentation material; use of models; material distribution. | Annually - Disposal contract with Kalamazoo County Household Hazardous Waste Center. Annually - 0 & M Solid Waste Management Program (4 parts). 2019-21 significant upgrades to PYW Website. Annually in March - Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCh. Annually in September - Review & renewal of radio ad campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Number of website visitors; continued contract with Kalamazoo County for Household Hazardous Waste Collection Center use; continued City Solid Waste Collection Program; number of City residents using collection services; volume of materials collected; number of educational presentations and demonstrations discussing stormwater; continued movie theater ad; radio ad social media campaign. 2022 - 4th Community Water Resources Public Survey (if EGLE grant funding received). KVCC Reference F |
| 8 | Septic Tank Care and Maintenance | Proper septic system O & M; how to recognize system failure and its potential impact on water quality; proper disposal of pumped waste; where to get information; existing ordinances. | Septic system owners; septage haulers. | City's ordinances; PYW website; pre-movie theater ads/online streaming; radio ads; social media campaign; City's annual CCR; KSWG-MS4 Group; classroom/club presentations and demonstrations; facility tours; event presentations/model demonstrations (Groundwater Simulator and EnviroScape), static displays; material distribution. | are not serviced by sanitary sewer and have storm sewers, we | 2019-21 significant upgrades to PYW Website. Annually in March-Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. | Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP | Since there are only two short sections of streets within the City that are not serviced by sanitary sewer and have storm sewers, we largely defer this issue to Kalamazoo County Environmental Health. However, we will continue to use the PYVI website to promote this topic. Maintain and enhance message and links regarding septic tank care and maintenance. 2022 - 4th Community Water Resources Public Survey (if EGLE grant funding received). |
| 9 | Educate the Public on and Promote the Benefits of Green Infrastructure and Low Impact Development | Using native vegetation is usually beneficial, especially for surface water buffers since they typically are relatively low maintenance (do not need chemicals), they effectively absorb stormwater, decrease the need for mowing, and improve wildlife habitat. Benefits of green infrastructure and LID. | | Communicate the benefits to City decision makers; incorporate native vegetation into as many vegetative projects to the maximum extent practical. Maintain and enhance existing website links regarding topics. Encourage incorporation of green infrastructure and Low Impact Development (LID) measures into site plans where applicable. KVCC Ref. A & D | Already have several good links on website regarding benefits of native plants; added more links in 2021; will continue to research and modifyladd more as appropriate. | 2019-21 significant upgrades to PYW Website. Annually in March-Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad and social media campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. Weekly - City will promote during Site Plan Meetings. | Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP | Existence of website links; number of events that discuss benefits of using native plants; material made available to general citizens; communication to select City staff and contractors; participation with collaborative grant projects implementing green strategies. KVCC Reference F |
| 10 | Management of Riparian Lands to Protect Water Quality | Importance of riparian corridors; issues/challenges associated with water quality; BMPs for riparians. | Property owners; riparians; developers/contractors; lake & stream associations; golf courses; City employees, especially Parks & Recreation staff. | Communicate issue to general citizens via website, and pre-movie ad/online streaming; discuss issue at presentations/demonstrations regarding water quality; incorporate BMPs into City policy as appropriate and practical. | Added more links & resources in 2019-21. Will continue research for additional links for informational sources via website and research for potential handout material for presentations or website downloads. Distribute educational brochures. | Weekly - Use new Performance Standards to incorporate buffer requirements for Site Plan Review. 2019-21 significant upgrades to PYW Website. Annually in March - Renewal of pre-movie theatre ads (Kalamazoo 10, AMC Portage 10 (closed 11-2020) and Celebration Cinema) or online streaming with NCM. Annually in September - Review & renewal of radio ad and social media campaign. March and/or September - View from the Curb; Annually CCR. Minimum once annually - presentation/model demonstration. Quarterly - Material distribution. As opportunity exists - City will continue to mention issue during presentations, model demonstrations, and facility tours. Weekly - City will promote during Site Plan Meetings. | COK WRD staff. Other participants may include: KRWC, TMDL Steering Committee, the ECC, the KSWG-MS4 Group, the WHPP Committee, private organizations and citizens. | Maintaining existing and adding new or enhanced website links; number of events that discuss importance of and BMPs for riparian properties; materials distributed; communication to select City staff and contractors; participation with collaborative grant projects implementing vegetative strategies. |
| 11 | Identify and Educate Entity Specific Contributors of Stormwater Pollutants | Importance of proper management of chemicals and disposal practices; existing City ordinances/regulations. | Business specific sectors; City-wide operations & maintenance; City Environmental Managers. | Target social media to selected business and residential sectors; available website links/information; communication to business owners/managers/operators RE: relevant issues; discussion of issue at presentations/model demonstrations; explore opportunities to communicate issue with businesses during City business (PP, Cross-Connections, etc.); IDEP brochure. | Already completed two targeted mailings to commercial business sectors (pressure washing and waste haulers); enhanced website links and new section in 2019; update IDEP brochure. Already have demonstration models. 2017 communicated with Purchasing Manager regarding new opportunities for green supplies and 2019 elimination of glyphosate. | As opportunities exist - Continue to discuss issue during presentations/model demonstrations; 2017 - Integrated objectives with ongoing WHPP Chemical Storage/Inventory Project and 2017 Contaminant Source Inventory added to the City's internal GIS. 2022 update to Chemical Storage/Inventory Project. 2019-21 significant upgrades to PYW Website. 2017 communicated with Purchasing Manager regarding new opportunities for green supplies and 2019 elimination of glyphosate. | | Continued and enhanced website links; additional website links, text and graphics; material made available to general citizens; number of presentations/model demonstrations that issue was discussed; collaboration with Fire Marshal; collaborative efforts with other organizations; specific contacts with businesses. KVCC Reference F |

BMP = Best Management Practices COK = City of Kalamazoo

CCR = Consumers Confidence Report/Water Quality Report

ECC = Consumers Contidence reportivater Quality Report
ECC = Environmental Concerns Committee
EGLE = Michigan Department of Environment, Great Lakes & Energy
GIS = Geographic Information System
IDEP = Illicit Discharge Elimination Program

KRWC = Kalamazoo River Watershed Council

KVCC = Kalamazoo Valley Community College
KSWG-MS4 Group = Kalamazoo Stormwater Working Group - MS4 Collaborative Stormwater Group

NCM = National CineMedia

O & M = Operation and Maintenance PYW = ProtectYourWater.net TMDL = Total Maximum Daily Load

WHPP = Wellhead Protection Program WRD = Water Resources Division



TABLE 4: 2019 Stormwater Outfall Status & Action Plan

| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|--------------|-------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 19 | STOWKC15459 | Kalamazoo River/Mainstem 3 | Kalamazoo River | 8/18/2004-DFN 5/2005-FSC/EAO 6/23/2006-DF 8/24/2015-DF 9/11/2019-DF | 8/18/2004 8/24/2015 9/11/2019 | 8/18/2004 | | | May-05 | FSC | 30-100+ gpm (Varies) | EA complete at Metro Transit | 2019 - Recheck(ed) |
| 35 | STOWKC27580 | Portage Creek | Portage Creek | 7/22/2003-DF 10/5/2004 DF 10/11/2011-DF 8/12/2015-DF 7/11/2019-DF | 7/22/2003 10/5/2004 10/11/2011 8/12/2015 7/11/2019 (Initial) | 10/23/2003 10/12/2011 8/12/2015 8/21/2019 | 10/6/2004 10/12/2011 | 10/6/2004 10/12/2011 | N/A | FSC | Measurable, ~2 - 15 gpm with flouride = 0.21 - 0.234 mg/L and no negative characteristics is groundwater infiltration | Infiltration visible in manhole upstream | 2019 - Recheck(ed) |
| 91 | STOWKC271002 | Portage Creek | Portage Creek | 7/1/2003-DF 10/5/2004- DF 6/3/2008-DF 6/12/2008-DF 10/13/2011-DF 8/12/2015-DF 7/11/2019-DF | 7/1/2003 10/5/2004 6/3/2008 6/12/2008 10/13/2011 8/12/2015 7/11/2019 (Initial) | 10/23/2003 6/12/2008 10/13/2011 8/12/2015 8/21/2019 | 10/6/204 10/13/2011 | 10/6/2004 10/13/2011 | N/A | FSC | 5-10 gpm, lab flouride = 0.081-0.13 mg/L and surfactant < 0.5 mg/L | Groundwater is from City drains | 2019 - Recheck(ed) |
| 92 | STOWKC231 | Mainstem 3 | Kalamazoo River | 6/7/2005-DF 2009 & 2010-DF 1/5/2011-DF 4/13/2011-DF 9/15/2015-DF | 6/7/2005 6/4/2010 1/5/2011 4/13/2011 9/15/2015 | 6/7/2005 11/1/2010 4/13/2011 9/15/2015 | 7/15/2005 11/2010 | 7/15/2005 | 2008 | FSC | 2011 Observations were at upstream location near Holland Pallett. Lab flouride = 0.068 and flow appears to be groundwater infiltration. | Flow of 30-40 gpm at outfall. Cross connection with sanitary sewer late Sept. 2009 - Corrected. | 2019 - Recheck |
| 114 | STOWKC22170 | Portage Creek | Portage Creek | 6/24/2003-TC 9/1/2004- TC 10/15/2004-NF 8/12/2009-DF 9/2/2015-DF 7/29/2019-NF | 6/24/2003 9/1/2004 8/12/2009 9/2/2015 7/29/2019 | 8/14/2009 9/2/2015 7/29/2019 | 8/19/2009 | 8/19/2009 | Hageman's Used Furniture - 9/20/2010 Hockstra Hardware - 9/20/2010 Playhouse Barber Shop - 3/30/2011 | NF | Lab flouride = 0.6 - 1.01 mg/l | No flow on 7/29/2019. | 2019 - Recheck(ed) |
| 123 | STOWKC151022 | Portage Creek | Portage Creek | 6/24/2003-DF 9/14/2004 TC 10/21/2004-DF 5/19/2008-DF 10/20/2009-DF 10/13/2011-DF 9/16/2015-DF 8/12/2019-DF | 5/19/2008 10/20/2009 10/13/2011 9/16/2015 8/12/2019 | 10/31/2003 10/26/2004 5/20/2008 10/13/2011 9/16/2015 9/6/2019 | 9/10/2004 5/20/2008 10/13/2011 | 5/20/2008 10/13/2011 | Arcus Foundation - 11/5/2008 YWCA - 10/28/2008 Bimbo's Pizza - 10/27/2008 Columbia Plaza - 10/27/2008 | FSC | 15-20 gpm is from dewatering, lab flouride = 0.234 mg/L and surfactants <0.5 mg/L, no negative characteristics. | No flow in west leg. Flow in north leg from YWCA & Columbia Plaza dewatering. No flow in south leg. | 2019 - Recheck(ed) |
| 130 | STOWKC145 | Mainstem 3 | Kalamazoo River | 6/22/2005-DF 9/15/2014-DF 7/29/2015-DF 8/14/2019-DF | 6/22/2005 9/15/2014 7/29/2015 8/21/2019 | 6/22/2005 9/15/2014 7/29/2015 | 7/15/2005 7/29/2015 | 7/15/2005 | Dec-09 | FSC | 1-2 gpm, lab fluoride result = 0.109 mg/l | Several contributory flows | 2019 - Recheck(ed) |
| 140 | STOWKC28316 | Axtell Creek | Axtell Creek | 6/18/2003-US 8/10/2004- DF 5/30/2006-DF 9/9/2009-DF 8/21/2014- DF 7/24/2015-DF 7/18/2019-DF | 6/18/2003 8/10/2004 9/9/2009 - 8/21/2014 7/24/2015 7/18/2019 | 9/30/2003 11/1/2004 9/9/2009 7/29/2019 | 8/10/2004 9/21/2009 | 8/10/2004 9/21/2009 | WWMT - 9/13/2005 AAA Michigan - 11/2/2005 AZON USA Inc 9/6/2005 & 4/19/2006 (Dye) - See STOWKC213012 Glowing Embers Girl Scout Council - 9/16/2005 | FSC | 25 - 50 gpm with flouride = 0.000 - 0.13 mg/L and no negative characteristics is groundwater; additional flow from creek backflow | Possibly up to 100 gpm flow due to creek backflow from STOWKC28325, hydraulically interconnected with STOWKC28316. | 2019 - Recheck(ed) |
| 141 | STOWKC28325 | Axtell Creek | Axtell Creek | 6/18/2003-US 8/10/2004 DF 5/30/2006-DF 9/9/2009-DF 8/21/2014 DF 7/23/2015-DF 7/18/2019-DF | 6/18/2003 8/10/2004 9/9/2009 8/21/2014 7/23/2015 7/18/2019 | 9/30/2003 9/9/2009 7/29/2019 | 8/10/2004 See STOWKC 28316 | 8/10/2004 See STOWKC 28316 | WWMT - 9/13/2005 AAA Michigan - 11/2/2005 AZON USA Inc 9/6/2005 & 4/19/2006 (Dye) - See STOWKC213012 Glowing Embers Girl Scout Council - 9/16/2005 | FSC | 25 - 50 gpm with flouride = 0.000 - 0.13 mg/L and no negative characteristics is groundwater; additional flow from creek backflow | Creek water is backing up through outfall and entering creek again via STOWKC28316, hydraulically interconnected with STOWKC28325. | 2019 - Recheck(ed) |

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|-----|---------------|-------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------|
| 145 | STOWAKC222508 | Axtell Creek | Axtell Creek | 6/18/2003-TC 9/29/2004- DF 11/22/2005-DFN 6/9/2006-DF 11/10/2010- DF 9/21/2015-DF 8/02/2019-DF | 6/18/2003 9/29/2004 11/10/2010 9/21/2015 8/02/2019 | 9/29/2004 11/16/2010 9/21/2015 8/21/2019 | 10/18/2004 | 10/13/2004 | Wilson-Brinker Assoc., Inc 10/11/2005 & 4/13/2006 (Dye) Smokes On Burdick - 11/8/2005 Vacant Bldg 1318 S. Burdick Southtown Naturopathic Center - 11/15/2005 | FSC | Flow of 10-15 gpm does not have oily sheen observed in 2005. Illicit floor drain at 1209 S. Burdick eliminated in 2009. | groundwater; lab flouride = | 2019 - Recheck(ed) |
| 154 | STOWKC28306 | Axtell Creek | Axtell Creek | 6/17/2003-US 9/2/2003- DF 5/30/2006-DF 5/1/2008-DF 8/5/2015-DF 7/15/2019-NF | 6/17/2003 8/10/2004 5/5/2008 8/5/2015 7/09/2019 | 9/30/2003 11/1/2004 5/5/2008 8/21/2019 | 8/10/2004 5/5/2008 | 8/10/2004 5/5/2008 | AZON USA Inc 9/6/2005 & 4/19/2006 (Dye) - See STOWKC213012 | FSC | Submerged, 10-40 gpm, low fluoride (0.075 - 0.12 ppm), groundwater from City & private dewatering | Flow can also be observed at upstream manholes - adjacent to GW seep. | 2019 - Recheck(ed) |
| 156 | STOWKC28302 | Axtell Creek | Axtell Creek | 6/17/2003-US 9/12/2003-DF 8/9/2004-FSC 5/1/2008-DF 8/28/2015-DF 8/01/2019-DF | 6/17/2003 8/9/2004 5/5/2008 8/28/2015 8/01/2019 | 10/8/2003 11/1/2004 5/5/2008 8/28/2015 9/11/2019 | 8/9/2004 5/5/2008 8/28/2015 8/01/2019 | 5/5/2008 9/1/2015 | Sep-15 | DF | City water from leaking pump to trench drain in Station #6, confirmed by dye testing. Problem was rectified. | Fluoride lab result - 0.071 - 0.151 ppm. Appears to be GW from high water table. | 2019 - Recheck(ed) |
| 157 | STOWKC221397 | Axtell Creek | Crosstown Ponds | 6/17/2003-US 9/12/2003-DF 8/13/2004- TC 6/8/2010-DF 8/17/2015-DF 7/11/2019-DF | 6/17/2003 8/13/2004 6/8/2010 8/17/2015 7/11/2019 (Initial) | 10/1/2003 6/8/2010 8/17/2015 8/21/2019 | 8/13/2004 10/21/2010 | Nov-05 | Harding's Market - 10/23/2007 RX Optical/Park Place Partnership, LLC - 9/21/2005 Solaire Optical - 9/21/2005 | FSC | Aqua PVC pipe in catch basin which connects to STMHKC27335. | Flow of 2-5 gpm has flouride = 0.0149 - 0.352 and appears to be groundwater | 2019 - Recheck(ed) |
| 173 | STOWKC21685 | Axtell Creek | Axtell Creek | 6/17/2003-DF 4/30/2008- NF 7/27/2011-DF 8/17/2015-DF 7/18/2019-DF | 6/17/2003 8/9/2004 4/30/2008 7/27/2011 8/17/2015 7/18/2019 | 9/30/2003 11/1/2004 7/27/2011 8/17/2015 7/29/2019 | 8/9/2004 7/27/2011 | 8/9/2004 | Parkway Plastic Surgery - 9/26/2005 | FSC | 5-7 gpm evident at upstream manhole | Lab flouride = 0.074 - 0.165 ppm, surfactants = <0.5 ppm. Flow is groundwater, probably from City drains. | 2019 - Recheck(ed) |
| 230 | STOWKC141 | Kalamazoo River/Mainstem 3 | Kalamazoo River | 4/23/2004-DF 6/8/2007- DF 7/17/2014-NF 7/21/2015-NF 7/09/2019-NF | 4/23/2004 6/8/2007 7/17/2014 7/21/2015 7/09/2019 | 4/23/2004 | 6/19/2007 | 6/19/2007 | N/A | NF | Flow varies from 20-60 gpm due to MDOT dewatering station at viaduct | Flow at outfall is consistent with flow from station - no more flow detected after July 2014. | 2019 - Recheck(ed) |
| 231 | STOWKC15417 | Kalamazoo River/Mainstem 3 | Kalamazoo River | 4/23/2004-DF 5/23/2007- DF 7/24/2014-DF 7/22/2015-NF 8/09/2019-DF | 4/23/2004 7/24/2014 7/22/2015 8/09/2019 | 4/26/2004 7/24/2014 9/6/2019 | 6/19/2007 | 6/19/2007 | Oct-07 | FSC/ NF - 2015 | Outfall submerged, upstream flouride sample results are 0.067 at STILKC143001-2019. | Illicit connection at Kal. County Circuit Court eliminated. | 2019 - Recheck(ed) |
| 356 | STOWAKC215004 | Arcadia Creek | Arcadia Creek | 11/21/2006-DF 5/17/2010-NF 9/8/2014- DF 8/13/2015-DF 7/31/2019-DF | 11/21/2006 5/17/2010 9/8/2014 8/13/2015 7/31/2019 | 11/21/2006 5/17/2010 8/13/2015 8/21/2019 | N/A | N/A | N/A | FSC | Low flow of about 5 gpm appears to be from GW; Fluoride from 0.051 - 0.151 mg/L. | | 2019 - Recheck(ed) |
| 364 | STOWKC364 | Kalamazoo River/Mainstem 3 | Davis Creek | 11/18/2004-DF 11/24/2004-TC 6/7/2007-DF/TC 10/18/2011-DF 8/4/2015-DF 8/13/2019-DF | 11/18/2004 6/7/2007 10/18/2011 8/4/2015 8/13/2019 | 11/24/2004 10/18/2011 8/4/2015 8/21/2019 | N/A 10/18/2011 | N/A | N/A | FSC | No negative effects. Fluoride concentration collected at outfall was 0.15 mg/L (2019), indicative of groundwater/-stormwater. | interconnects | 2019 - Recheck(ed) |

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|-----|---------------|-------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 367 | STOWKC362 | Kalamazoo River/Mainstem 3 | Davis Creek | 11/18/2004-DF 10/18/2011-DF 8/4/2015-DF 7/26/2019 DF | 11/18/2004 10/18/2011 - 8/4/2015 7/26/2019 | 11/24/2004 10/18/2011 8/4/2015 8/21/2019 | 5/19/2005 11/2/2011 | 5/19/2005 | 2008 & 2009 | FSC | 15-20 gpm flow with lab flouride = 0.18 - 0.249 mg/L and no negative effects | Flow appears to be groundwater; flow decreases to 1-2 gpm at manhole STMHKC36231 | 2019 - Recheck(ed) |
| 144 | STOWAKC222507 | Axtell Creek | Axtell Creek | 6/18/2003-TC 9/29/2004-DF 6/9/2006-DF 10/6/2011-DF 9/3/2015-DF 7/2/2019 NF | 6/18/2003 9/29/2004 10/6/2011 7/2/2019 | 9/29/2004 10/6/2011 9/3/2015 | 10/18/2004 10/6/2011 | 10/13/2004 10/6/2011 | Fifth Third Bank - 11/2/2005 R & R Discount Medical - 11/1/2005 George R. Wade Realtor - 11/16/2005 VanderSalm's Florist - 11/2/2005 | FSC | Lab flouride = 0.13 - 0.251 mg/L and MBAS = <0.5 mg/L. Groundwater being pumped from basement at VanderSalm's. | Flow 15-20 gpm traced to upstream catch basin at VanderSalm's drive. Some sumps and floor drains may need dye testing. | 2019 - Recheck(ed) |
| 175 | STOWKC25206 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/9/2005-DF 10/18/2011 DF 8/25/2014-DF 7/27/2015-DF 7/23/2019-DF | -5/9/2005 10/18/2011 8/25/2014 7/27/2015 7/23/2019 | 5/26/2005 7/27/2015 7/29/2019 | 5/18/2005 | 5/26/2005 | Nov-08 | FSC | >10 gpm with no negative characteristics. Collected sample at outfall and upstream manhole, STMHKC203 in 2015 & 2019; fluoride is 0.12-014 mg/L indicating groundwater. | | 2019 - Recheck(ed) |
| 435 | STOWKC3412 | West Fork Portage Creek | West Fork Portage Creek | 10/25/2004-DF 12/2/2009-NF 9/06/2013-DF 9/10/2015-DF 7/17/2019-NF | 10/25/2004 12/2/2009 9/06/2013 9/10/2015 7/17/2019 | 10/25/2004 | 11/5/2004 | 11/5/2004 | Nov-04 | NF | | Flow from Mt. Everest Cemetery - in 2013 & 2015. No flow in 2019. | 2019 - Recheck |
| 245 | STOGKC20396 | Arcadia Creek | | 4/21/2005-CNL 4/22/2005-NF 6/4/2009- NF 9/26/2013-DF 10/172013-NF 7/10/2015-NF 6/11/2019-NF | 4/21/2005 6/4/2009 9/26/2013 10/17/2013 7/10/2015 6/11/2019 | N/A | N/A | N/A | N/A | NF | | Initial flow on 9/26/2013 was due to a water main break near a catch basin. This flow ceased when break was repaired, verified on 10/17/2013. | 2019 - Recheck(ed) |
| 13 | STOWKC25310 | Mainstem 3 | Davis Creek | 9/14/2010-NF 7/16/2015-NF 6/12/2019-NF | 9/14/2010 7/16/2015 6/12/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 14 | STOGKC25312 | Mainstem 3 | Davis Creek | 9/14/2010-NF 7/16/2015-NF 6/12/2019-NF | 9/14/2010 7/15/2015 6/12/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 29 | STOWKC34366 | Portage Creek | Portage Creek | 7/3/2003-NF 10/12/2004 NF 5/22/2008-NF 10/4/2011-NF 7/20/2015-NF 8/12/2019-NF | -7/3/2003 10/12/2004 5/29/2008 10/4/2011 7/20/2015 8/12/2019-NF | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole | Partially submerged | 2019 - Recheck(ed) |
| 30 | STOWKC34233 | Portage Creek | Portage Creek | 7/3/2003-DF 9/27/2004- NF 5/16/2008-NF 6/15/201-NF 7/20/2015-NF 7/08/2019-NF | 7/3/2003 9/27/2004 5/16/2008 6/15/2011 7/20/2015 7/08/2019 | N/A | N/A | N/A | N/A | NF | Outfall partially submerged, evaluated at upstream catch basin | | 2019 - Recheck(ed) |
| 31 | STOGKC34237 | Portage Creek | Portage Creek | 7/22/2003-NF 9/27/2004 NF 5/30/2008-NF 10/10/2011-NF 7/20/2015-NF 7/08/2019-NF | 7/22/2003 9/27/2004 5/30/2008 10/10/2011 7/20/2015 7/08/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 34 | STOWKC27392 | Portage Creek | Portage Creek | 7/22/2003-NF 9/22/2004 NF 6/12/2008-NF 9/29/2011-NF 7/16/2015-NF 6/12/2019-NF | 7/22/2003 9/22/2004 6/12/2008 9/29/2011 7/16/2015 6/12/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated at upstream catch basins. | | 2019 - Recheck(ed) |

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|----|--------------|-----------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------|
| 43 | STOGKC27556 | Portage Creek | Portage Creek | 7/2/2003-NF 9/27/2004- NF 5/16/2008-NF 9/13/2011-NF 7/16/2015-NF 6/12/2019-NF | 7/2/2003 9/27/2004 5/16/2008 9/13/2011 7/16/2015 6/12/2019 | N/A | N/A | N/A | N/A | NF | Verified at upstream manhole | Outfall on private property | 2019 - Recheck(ed) |
| 50 | STOWKC27564 | Portage Creek | Portage Creek | 7/17/2003-NF 10/5/2004 NF 5/29/2008-NF 9/29/2011-NF 7/16/2015-NF 6/12/2019-NF | 7/17/2003 10/5/2004 5/29/2008 9/29/2011 7/16/2015 6/12/2019 | N/A | N/A | N/A | Jun-10 | NF | Outfall on private property, evaluated at upstream catch basin | | 2019 - Recheck(ed) |
| 53 | STOWKC223528 | Portage Creek | Portage Creek | 7/16/2003-NF 9/21/2004 NF 6/3/2008-NF 9/29/2011-NF 6/26/2015-NF 7/2/2019-NF | 7/16/2003 9/21/2004 6/3/2008 9/29/2011 6/26/2015 7/2/2019 | N/A | N/A | N/A | N/A | NF | Submerged, evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 54 | STOWKC223526 | Portage Creek | Portage Creek | 7/16/2003-NF 9/21/2004- NF 6/2/2008-NF 9/29/2011-NF 6/26/2015-NF 7/2/2019-NF | 7/16/2003 9/21/2004 6/2/2008 9/29/2011 6/26/2015 7/2/2019 | N/A | N/A | N/A | N/A | NF | Outfall submerged, evaluated upstream | | 2019 - Recheck(ed) |
| 55 | STOWKC223525 | Portage Creek | Portage Creek | 7/16/2003-NF 9/21/2004 NF 5/30/2008-NF 9/29/2011-NF 6/26/2015 NF 7/2/2019-NF | 7/16/2003 9/21/2004 5/30/2008 9/29/2011 6/26/2015 7/2/2019 | N/A | N/A | N/A | N/A | NF | Outfall submerged, evaluated upstream | | 2019 - Recheck(ed) |
| 56 | STOWKC221873 | Portage Creek | Portage Creek | 7/16/2003-NF 9/20/2004 NF 5/30/2008-NF 9/29/2011-NF 6/26/2015 NF 7/1/2019-NF | 7/16/2003 9/20/2004 5/30/2008 9/29/2011 6/26/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated upstream | | 2019 - Recheck(ed) |
| 57 | STOWKC221915 | Portage Creek | Portage Creek | 7/16/2003-NF 9/20/2004- NF 5/30/2008-NF 9/29/2011-NF 6/26/2015-NF 7/1/2019-NF | -7/16/2003 9/20/2004 5/30/2008 9/29/2011 6/26/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated upstream | | 2019 - Recheck(ed) |
| 58 | STOGKC34231 | Portage Creek | Portage Creek | 7/16/2003-NF 10/13/2004-NF 5/21/2008-NF 6/15/2011-NF 8/03/2015-NF 7/08/2019-NF | 7/16/2003 10/13/2004 5/21/2008 6/15/2011 8/03/2015 7/08/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream catch basin, outfall overgrown with vegetation | Catch basin STCBKC34230 immediately upstream needs cleaning out (badly). | 2019 - Recheck(ed) |
| 59 | STOGPC032000 | Portage Creek | Portage Creek | 7/16/2003-NF 10/13/2004-NF 5/21/2008-NF 10/6/2011 NF 6/26/2015-NF 7/08/2019-NF | 7/16/2003 10/13/2004 -5/21/2008 10/6/2011 6/26/2015 7/08/2019 | N/A | N/A | N/A | N/A | NF | Evaluated upstream, outfall overgrown with vegetation | Catch basin STCBPC031012 immediately upstream needs cleaning out (badly). | 2019 - Recheck(ed) |
| 62 | STOWKC27447 | Portage Creek | Portage Creek | 7/16/2003-DF 9/22/2004 DF 11/20/2007-NF 11/28/2007-NF 12/12/2007-NF 9/29/2011-NF 8/21/2015-NF 7/2/2019-NF | 7/16/2003 9/22/2004 11/20/2007 9/29/2011 8/21/2015 7/2/2019 | 10/24/03 | 9/23/2004 | 9/23/2004 | Nov-07 | NF | 2012 - Enforcement Letter | Storm sewer connection to Portage Creek from "dirty room" at Goodwill Industries on Alcott - (old) | 2019 - Recheck(ed) |
| 88 | STOWKC34291 | Portage Creek | Portage Creek | 7/1/2003-NF 9/23/2004- NF 5/16/2008-NF 6/15/2011-NF 7/20/2015-NF 7/08/2019-NF | 7/1/2003 9/23/2004 5/16/2008 6/15/2011 7/20/2015 7/08/2019 | N/A | N/A | N/A | N/A | NF | Outfall partially submerged, evaluated at upstream manhole | | 2019 - Recheck(ed) |

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|-----|--------------|-----------------------|---------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------|
| 101 | STOWKC222035 | Portage Creek | Portage Creek | 6/25/2003-NF 9/21/2004- NF 5/9/2008-NF 9/13/2011-NF 7/1/2015- NF 7/1/2019-NF | 6/25/2003 9/21/2004 5/9/2008 9/13/2011 7/1/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 102 | STOWKC221743 | Portage Creek | Portage Creek | 6/25/2003-NF 9/20/2004- NF 5/16/2008-NF 9/13/2011-NF 8/21/2015-NF 7/1/2019-NF | 6/25/2003 9/20/2004 5/16/2008 9/13/2011 8/21/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 103 | STOWKC221739 | Portage Creek | Portage Creek | 6/25/2003-NF 9/20/2004- NF 5/9/2008-NF 9/7/2011-NF 7/1/2015- NF 7/1/2019-NF | 6/25/2003 9/20/2004 5/9/2008 9/7/2011 7/1/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 104 | STOWKC221851 | Portage Creek | Portage Creek | 6/25/2003-NF 9/20/2004- NF 5/15/2008-NF 9/13/2011-NF 6/26/2015-NF 7/1/2019-NF | 6/25/2003 9/20/2004 5/15/2008 9/13/2011 6/26/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Outfall submerged, evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 105 | STOWKC22591 | Portage Creek | Portage Creek | 6/25/2003-NF 9/15/2004- NF 5/9/2008-DF 9/5/2011-NF 7/1/2015- NF 6/17/2019-NF | 6/25/2003 9/15/2004 5/9/2008 9/7/2011 7/1/2015 6/17/2019 | 5/9/08 | 5/9/2008 | 5/9/2008 | N/A | NF | | | 2019 - Recheck(ed) |
| 107 | STOWKC222041 | Portage Creek | Portage Creek | 6/25/2003-NF 9/21/2004- US 10/2004-NF 5/19/2008-NF 9/13/2011- NF 7/1/2015-NF 7/1/2019-NF | 6/25/2004 9/21/2004 5/19/2008 9/13/2011 7/1/2015 7/1/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 110 | STOWKC22537 | Portage Creek | Portage Creek | 6/25/2003-DF 7/2/2003- DF 9/15/2004-NF 5/6/2008-NF 9/7/2011- NF 7/01/2015-NF 6/17/2019-NF | 6/25/2003 7/2/2003 9/15/2004 5/6/2008 9/7/2011 7/01/2015 6/17/2019 | N/A | N/A | N/A | N/A | NF | Outfall partially submerged | Only two catch basins associated with this outfall | 2019 - Recheck(ed) |
| 116 | STOWKC223012 | Portage Creek | Portage Creek | 6/24/2003-NF 9/15/2004- NF 5/6/2008-NF 9/7/2011-NF 7/1/2015- NF 6/17/2019-NF | 6/24/2003 9/15/2004 5/6/2008 9/7/2011 7/1/2015 6/17/2019 | N/A | N/A | N/A | N/A | NF | Outfall submerged | Freshwater clams | 2019 - Recheck(ed) |
| 117 | STOWKC15980 | Portage Creek | Portage Creek | 6/24/2003-NF 9/1/2004- NF 5/6/2008-NF 10/6/2011-NF 7/10/2015-NF 6/18/2019-NF | 6/24/2003 9/1/2004 5/6/2008 10/6/2011 7/10/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole, outfall under bridge | Standing water in upstream manhole but no flow | 2019 - Recheck(ed) |
| 118 | STOWKC15984 | Portage Creek | Portage Creek | 6/24/2003-NF 7/2/2003- DF 9/1/2004-NF 5/6/2008-NF 10/6/2011- NF 7/10/2015-NF 6/18/2019-NF | 6/24/2003 7/2/2003 9/1/2004 5/6/2008 10/6/2011 7/10/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Evaluated upstream, outfall partially submerged | | 2019 - Recheck |
| 120 | STOWKC22823 | Portage Creek | Portage Creek | 6/24/2003-NF 9/1/2004- NF 5/8/2008-DF 10/4/2011-NF 7/1/2015-NF 6/17/2019-NF | 6/24/2003 9/1/2004 5/8/2008 10/4/2011 7/1/2015 6/17/2019 | 5/8/2008 | 5/8/2008 | 5/8/08 | N/A | NF | Rust stains along curbing but no flow at outfall | Several businesses dewaterd to this outfall in past years | 2019 - Recheck(ed) |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|---------------|-----------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|---------------------------------------|------------------|-------------------------------------------------------------------------|-----------------------------------------|----------------------|
| 121 | STOWAKC222504 | Portage Creek | Portage Creek | 6/24/2003-NF 9/1/2004- NF 5/6/2008-NF 8/18/2011-NF 7/1/2015- NF 6/17/2019-NF | 6/24/2003 9/1/2004 5/6/2008 8/18/2011 7/1/2015 6/17/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole, outfall under bridge | | 2019 - Recheck(ed) |
| 139 | STOWAKC222503 | Axtell Creek | Axtell Creek | 6/18/2003-US 8/13/2004- DF 5/1/2008-DF 10/4/2011-NF 7/2/2015-NF 6/17/2019-NF | 6/18/2003 8/13/2004 5/5/2008 10/4/2011 7/2/2015 6/17/2019 | 8/16/2004 11/1/2004 5/5/2008 | 8/24/2004 5/5/2008 | 8/24/2004 5/5/2008 | Arthur Washington Center - 10/14/2005 | NF | | | 2019 - Recheck(ed) |
| 142 | STOWAKC222502 | Axtell Creek | Axtell Creek | 6/18/2003-US 10/8/2003- NF 8/16/2004-NF 5/15/2008-NF 8/17/2011- NF 7/2/2015-NF 6/17/2019-NF | 6/18/2003 8/13/2004 5/15/2008 8/17/2011 7/2/2015 6/17/2019 | 8/16/2004 8/13/2004 | N/A | N/A | N/A | NF | Outfall under ground, evaluated at upstream manhole | Trash (floatables) in standing water | 2019 - Recheck(ed) |
| 150 | STOWKC28326 | Axtell Creek | Axtell Creek | 6/18/2003-NF 7/12/2004- NF 5/29/2008-NF 8/4/2011-NF 6/26/2015- NF 6/18/2019-NF | 6/18/2003 7/12/2004 5/29/2008 8/4/2011 6/18/2019 | N/A | N/A | N/A | N/A | NF | Submerged | Evaluated at upstream manhole | 2019 - Recheck(ed) |
| 151 | STOWKC28315 | Axtell Creek | Axtell Creek | 6/18/2003-NF 7/12/2004- NF 5/19/2008-NF 8/4/2011-NF 6/26/2015- NF 6/14/2019-NF | 6/18/2003 7/12/2004 5/19/2008 8/4/2011 6/26/2015 6/26/2015 6/14/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 152 | STOWAKC222506 | Axtell Creek | Axtell Creek | 6/18/2003-DF 8/13/2004- NF 12/15/2004-DF 12/15/2004-FSC/IF 4/20/2007-NF 5/18/2007-NF 5/31/2007- NF 8/172011-NF 7/2/2015-NF 6/17/2019-NF | 6/18/2003 8/13/2004 4/20/2007 5/18 & 31/2007 8/17/2011 7/2/2015 6/17/2019 | 11/13/2003 | N/A | N/A | N/A | NF | Outfall under ground, evaluated at upstream manhole, CATCH BASINS | | 2019 - Recheck |
| 155 | STOWKC21688 | Axtell Creek | Axtell Creek | 6/17/2003-US 7/2/2003- DFN 8/9/2004-FSC 4/30/2008-NF 7/27/2011- NF 6/26/2015-NF 6/14/2019-NF | 6/17/2003 7/2/2003 4/30/2008 7/27/2011 6/26/2015 6/14/2019 | 10/1/2003 11/1/2004 | 8/9/2004 | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 159 | STOWKC282004 | Axtell Creek | Axtell Creek | 6/17/2003-NF 8/14/2003- IF 8/29/2003-TC IO/2004-NF 5/19/2008- NF 8/4/2011-NF 6/26/2015-NF 8/12/2019-NF | 6/17/2003 10/04 5/19/2008 8/4/2011 6/26/2015 8/12/2004 | N/A | 8/17/2004 | N/A | N/A | NF | Partially submerged | Evaluated upstream | 2019 - Recheck(ed) |
| 160 | STOWKC221131 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004- NF 7/11/2008-NF 7/25/2011-NF 7/2/2015- NF 6/18/2019-NF | 7/11/2008 | N/A | N/A | N/A | N/A | NF | Outfall is submerged and overgrown with vegetation | Evaluated at upstream catch basin | 2019 - Recheck(ed) |
| 161 | STOWKC224021 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004- NF 7/11/2008-NF 7/25/2011-NF 7/2/2015- NF 6/18/2019-NF | 7/11/2008 | N/A | N/A | N/A | N/A | NF | Outfall is submerged | Evaluated at upstream catch basins | 2019 - Recheck(ed) |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|--------------|-----------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|---------------------------------------------------------------------------------------|--------------------------------------------|----------------------|
| 162 | STOWKC221129 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004 NF 7/10/2008-NF 7/25/2011-NF 7/2/2015-NF 6/18/2019-NF | 6/17/2003 7/12/2004 7/10/2008 7/26/2011 7/2/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 163 | STOWKC221399 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004 NF 7/10/2008-NF 7/25/2011-NF 7/10/2015-NF 6/18/2019-NF | 6/17/2004 7/12/2004 7/10/2008 7/26/2011 7/10/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | | Sediment at outfall | 2019 - Recheck(ed) |
| 164 | STOWKC221389 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004 NF 7/10/2008-NF 7/25/2011-NF 7/10/2015-NF 6/18/2019-NF | 6/17/2003 7/12/2004 7/10/2008 7/26/2011 7/10/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 165 | STOWKC224015 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004 NF 7/10/2008-NF 7/25/2011-NF 7/10/2015-NF 6/18/2019-NF | 6/17/2003 7/12/2004 7/10/2008 7/26/2011 7/10/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Submerged | Evaluated at upstream manhole | 2019 - Recheck(ed) |
| 166 | STOWKC221139 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/12/2004 NF 7/10/2008-NF 7/25/2011-NF 7/2/2015 NF 6/18/2019-NF | 6/17/2003 7/12/2004 7/10/2008 7/26/2011 7/2/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 168 | STOWKC221141 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 8/13/2003 DF 9/12/2003-TC 10/22/2004-NF 7/10/2008-NF 7/25/2011 NF 7/2/2015-NF 6/18/2019-NF | 6/17/2003 10/22/2004 7/10/2008 - 7/26/2011 7/2/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Dye testing confirmed no flow | Outfall may be submerged, could not locate | 2019 - Recheck(ed) |
| 169 | STOWKC221133 | Axtell Creek | Crosstown Ponds | 6/17/2003-NF 7/21/2004 NF 7/11/2008-NF 7/25/2011-NF 7/2/2015 NF 6/18/2019-NF | 6/17/2003 7/21/2004 7/11/2008 7/26/2011 7/2/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Outfall is submerged | Evaluated at upstream manhole | 2019 - Recheck(ed) |
| 171 | STOWKC21649 | Axtell Creek | Axtell Creek | 6/17/2003-DF 7/12/2004 NF 7/12/2004-FSC 4/30/2008-NF 7/27/2011 NF 6/26/2015-NF 6/14/2019-NF | 6/17/2003 7/12/2004 4/30/2008 7/27/2011 6/26/2015 6/14/2019 | N/A | N/A | N/A | N/A | NF | Partially submerged, evaluated upstream | Groundwater was previous source | 2019 - Recheck(ed) |
| 174 | STOWKC223014 | Axtell Creek | Crosstown Ponds | 6/17/2003-CNL 7/12/2004-NF 7/11/2008 NF 7/25/2011-NF 7/2/2015-NF 6/18/2019-NF | 6/17/2003 7/12/2004 7/11/2008 7/26/2011 7/2/2015 6/18/2019 | N/A | N/A | N/A | N/A | NF | Submerged outfall | Evaluated at upstream manhole | 2019 - Recheck(ed) |
| 191 | STOGKC252004 | Mainstem 3 | Davis Creek | 5/17/2005-DF 5/23/2005- IF 5/31/2005-DF 11/2/2011-NF 7/16/2015-NF 6/12/2019-NF | 5/17/2005 11/2/2011 7/16/2015 6/12/2019 | 5/17/2005 | 5/31/2005 | 5/31/2005 | 2008 | NF | Previous flow at Globe Construction not evident this year. | | 2019 - Recheck(ed) |
| 222 | STOWKC19398 | Arcadia Creek | | 4/25/2005-NF 7/31/2009 DF NF-2010 7/21/2015-NF 6/11/2019-NF | 4/25/2005 7/31/2009 8/27/2010 9/13/2010 7/21/2015 6/11/2019 | N/A 7/31/2009 | 8/4/2009 | 8/4/2009 | 2009 | NF | Flow from Clayborne Ct. has not been observed during periodic checks in 2010 | Flouride = 0.9 ppm (2009) | 2019 - Recheck(ed) |

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|-----|-------------|-------------------------|----------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------|
| 266 | STOWKC29375 | Axtell Creek | Woods Lake | 4/12/2005-NF 9/3/2009 NF 6/26/2015-NF 7/2/2019-NF | 4/12/2005 9/3/2009 6/26/2015 7/2/2019 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream manhole | | 2019 - Recheck(ed) |
| 317 | STOWKC31131 | West Fork Portage Creek | Cherry Creek Lake | 11/8/2004-NF 8/11/2008- NF 7/22/2011-NF 8/19/2015-NF 7/22/2019-NF | 11/8/2004 8/11/2008 7/26/2011 8/19/2015 7/22/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 318 | STOWKC31132 | West Fork Portage Creek | Cherry Creek Lake | 11/8/2004-NF 8/11/2008 NF 7/22/2011-NF 8/19/2015-NF 7/22/2019-NF | -11/8/2004 8/11/2008 7/22/2011 8/19/2015 7/22/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 319 | STOGKC31106 | West Fork Portage Creek | | 11/8/2004-NF 8/11/2008 NF 7/22/2011-NF 8/20/2015-NF 7/22/2019-NF | -11/8/2004 8/11/2008 7/22/2011 8/20/2015 7/22/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 320 | STOWKC3197 | West Fork Portage Creek | West Fork Portage Creek | 11/8/2004-NF 8/11/2008- NF 7/22/2011-NF 8/20/2015-NF 7/22/2019-NF | 11/8/2004 8/11/2008 7/22/2011 8/20/2015 7/22/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 321 | STOGKC31142 | West Fork Portage Creek | | 11/8/2004-NF 8/11/2008 NF 7/22/2011-NF 8/20/2015-NF 8/12/2019-NF | 11/8/2004 8/11/2008 7/26/2011 8/20/2015 8/12/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 322 | STOGKC31143 | West Fork Portage Creek | | 11/8/2004-NF 8/11/2008 NF 7/22/2011-NF 8/20/2015-NF 8/12/2019-NF | 11/8/2004 8/11/2008 7/26/2011 8/20/2015 8/12/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 323 | STOGKC31148 | West Fork Portage Creek | | 11/8/2004-NF 8/11/2008 NF 7/22/2011-NF 8/24/2015-NF 8/12/2019-NF | -11/8/2004 8/11/2008 7/26/2011 8/24/2015 8/12/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 324 | STOWKC31130 | West Fork Portage Creek | Cherry Creek Lake | 11/8/2004-NF 8/11/2008- DF 8/28/2008-NF 7/22/2011-NF 8/19/2015-NF 7/22/2019-NF | 11/8/2004 8/11/2008 8/28/2008 7/26/2011 8/19/2015 7/22/2019 | N/A | 8/14/2008 | N/A | N/A | NF | Three consecutive visits in 2008 resulted in NF determination. Previous flow probably irrigation. | 8/28/2008-NF 9/11/2008- NF 9/18/2008-NF | 2019 - Recheck(ed) |
| 325 | STOWKC31133 | West Fork Portage Creek | Willow Lake | 11/8/2004-NF 6/18/2008 NF 7/22/2011-NF 8/19/2015-NF 7/22/2019-NF | 11/8/2004 6/18/2008 7/22/2011 8/19/2015 7/19/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 326 | STOWKC31220 | West Fork Portage Creek | Willow Lake | 11/8/2004-NF 6/18/2008 NF 7/22/2011-NF 8/19/2015-NF 7/22/2019-NF | 11/8/2004 6/18/2008 7/22/2011 8/19/2015 7/22/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 327 | STOWKC32448 | West Fork Portage Creek | Drainage Basin on Wood Street | 11/4/2004-NF 7/31/2008 NF 10/12/2011-NF 10/12/2011-NF 7/8/2015-NF 6/5/2019-NF | 11/4/2004 7/31/2008 10/12/2011 7/8/2015 6/5/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 328 | STOGKC32346 | West Fork Portage Creek | | 11/4/2004-NF 7/31/2008 NF 10/12/2011-NF 7/8/2015-NF 6/5/2019-NF | 11/4/2004 7/31/2008 10/12/2011 7/8/2015 6/5/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 329 | STOGKC32161 | West Fork Portage Creek | | 11/3/2004-NF 7/29/2008 NF 10/12/2011-NF 7/8/2015-NF 7/19/2019-NF | 11/3/2004 7/29/2008 10/12/2011 7/8/2015 7/19/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|---------------|-------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|-----------------------|------------------------------------|----------------------|
| 330 | STOGKC32278 | West Fork Portage Creek | | 11/3/2004-NF 7/29/2008- NF 10/12/2011-NF 7/8/2015-NF 7/09/2019-NF | 11/3/2004 7/29/2008 10/12/2011 7/8/2015-NF 7/09/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 331 | STOGKC321010 | West Fork Portage Creek | | 11/3/2004-NF 7/29/2008- NF 10/12/2011-NF 7/8/2015-NF 7/16/2019-NF | 11/3/2004 7/29/2008 10/12/2011 7/8/2015 7/09/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 353 | STOWKC16639 | Arcadia Creek | Arcadia Creek | 11/21/2006-NF 9/27/2010-NF 7/10/2015-NF 7/31/2019-NF | 11/21/2006 9/27/2010 7/10/2015 7/31/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 370 | STOWAKC223500 | Axtell Creek | Axtell Creek | 11/14/2003-CNL 11/17/2003-NF 7/12/2004-NF 7/11/2008- NF 8/17/2011-NF 7/2/2015-NF 7/09/2019-NF | 11/14/2003 7/12/2004 7/11/2008 8/17/2011 7/2/2015 7/09/2019 | N/A | N/A | N/A | N/A | NF | Outfall is under road | Evaluated at upstream catch basins | 2019 - Recheck(ed) |
| 397 | STOWAKC151280 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/15/2010 NF 10/10/2016-NF 9/27/2019-NF | 10/9/2006 9/15/2010 10/10/2016 9/27/2019 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2019 - Recheck(ed) |
| 425 | STOGKC33332 | West Fork Portage Creek | | 10/25/2004-NF 7/9/2008- NF 10/11/2011-NF 8/11/2015-NF 7/16/2019-NF | 10/25/2004 7/9/2008 10/11/2011 8/11/2015 7/16/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 426 | STOGKC32318 | West Fork Portage Creek | | 10/25/2004-NF 7/7/2008- NF 10/11/2011-NF 8/11/2015-NF 7/16/2019-NF | 10/25/2004 7/7/2008 10/11/2011 8/11/2015 7/16/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 427 | STOWKC3274 | Axtell Creek | Drainage Basin at Laird & Benton | 10/25/2004-NF 7/29/2008-NF 11/2/2011- NF 7/8/2015-NF 6/5/2019-NF | 10/25/2004 7/29/2008 11/2/2011 7/8/2015 6/5/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck |
| 428 | STOWKC3275 | Axtell Creek | Drainage Basin at Laird & Benton | 10/25/2004-NF 7/29/2008-NF 11/2/2011- NF 7/8/2015-NF 6/5/2019-NF | 10/25/2004 7/29/2008 11/2/2011 7/8/2015 6/5/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck |
| 429 | STOGKC33302 | West Fork Portage Creek | | 10/25/2004-NF 6/23/2008-NF 10/11/2011-NF 8/11/2015-NF 7/16/2019-NF | 10/25/2004 6/23/2008 10/11/2011 8/11/2015 7/9/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 430 | STOWKC331009 | West Fork Portage Creek | White's Lake | 10/25/2004-NF 6/23/2008-NF 10/11/2011-NF 8/11/2015-NF 7/16/2019-NF | 10/25/2004 6/23/2008 10/11/2011 8/11/2015 7/9/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 431 | STOWKC33228 | West Fork Portage Creek | White's Lake | 10/25/2004-NF 6/23/2008-NF 10/11/2011-NF 7/28/2015-NF 7/16/2019-NF | 10/25/2004 6/23/2008 10/11/2011 7/28/2015 7/9/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 432 | STOGKC3410 | West Fork Portage Creek | West Fork Portage Creek | 10/25/2004-NF 6/2/2008- NF 10/10/2011-NF 8/03/2015-NF 7/17/2019-NF | 10/25/2004 6/2/2008 10/10/2011 8/03/2015 7/17/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 433 | STOGKC3416 | West Fork Portage Creek | West Fork Portage Creek | 10/25/2004-NF 6/2/2008-NF 6/15/2011-NF 8/03/2015-NF 7/17/2019-NF | 10/25/2004 6/2/2008 6/15/2011 8/03/2015 7/17/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|---------------|-------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------|
| 434 | STOGKC3417 | West Fork Portage Creek | West Fork Portage Creek | 10/25/2004-NF 6/2/2008-NF 6/15/2011-NF 8/03/2015-NF 7/17/2019-NF | 10/25/2004 6/2/2008 10/10/2011 8/03/2015 7/17/2019 | N/A | N/A | N/A | N/A | NF | | | 2019 - Recheck(ed) |
| 436 | STOGKC271003 | Portage Creek | Portage Creek | 10/23/2003-NF 10/5/2004-NF 6/18/2008 NF 10/10/2011-NF 7/16/2015-NF 8/19/2019-NF | 10/23/2003 -10/5/2004 6/18/2008 10/10/2011 7/16/2015 8/19/2019 | N/A | N/A | N/A | N/A | NF | Outfall structure not visible, appears to flow out on hillside under large tree roots | | 2019 - Recheck(ed) |
| 437 | STOGKC271012 | Portage Creek | Portage Creek | 10/23/2003-DF 10/21/2004-DF 6/3/2008 NF 6/18/2008-NF 6/25/2008-NF 10/10/11- NF 7/20/2015-NF 6/12/2019-NF | 10/23/2003 9/27/2004 6/3/2008 10/10/2011 7/20/2015 6/12/2019 | 10/23/03 | 10/4/2004 | 10/21/2004 | N/A | NF | Evaluated at upstream manhole & catch basin | | 2019 - Recheck(ed) |
| 398 | STOWAKC151292 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/15/2010 DF 9/22/2015-DF 8/05/2019-DF | 10/9/2006 9/15/2010 9/22/2015 8/05/2019 | 9/15/2010 9/22/2015 8/21/2019 | 9/16/2010 9/22/2015 | 9/16/2010 | 2011 | FSC | 17+ gpm with flouride = 0.16 ppm in 2019 | Dye testing revealed source of flow is Radisson. | 2019 - Recheck(ed) |
| 119 | STOWKC22937 | Portage Creck | Portage Creek | 6/24/2003-NF 11/10/2003-DF 9/1/2004 DFN 6/6/2006-DF 8/12/2009-NF 5/25/2012 NF 8/16/2013-NF 7/1/2015-NF 7/2/2019 NF | - 6/24/2003 9/1/2004 8/12/2009 5/25/2012 8/16/2013 7/1/2015 7/2/2019 | 11/13/03 | 9/13/2004 | 9/14/2004 | Superior Colour Graphics - 5/25/2005 Mostly Jaguar - 5/26/2005 DMS Electric - 8/2/2005 | NF | Evaluated upstream, outfall partially submerged - 2013 | | 2019 - Recheck(ed) |
| 255 | STOWKC19372 | Arcadia Creek | | 4/14/2005-DF 5/4/2005 TC 6/14/2007-DF 8/14/2014-DF 6/14/18 DF | 4/15/2005 - 8/14/2014 7/2/18 | 4/18/2005 7/02/2018 | 5/4/2005 7/02/2018 | 6/19/2007 | N/A | DF | 50+ gpm (EST.) evaluated at upstream catch basin STCBKC191006, lab flouride = 0.108 mg/l [Lab Fl=0.156 @ STMHKC1930T], appears to be groundwater. Most flow appears to originate near manhole STMHKC191008, at intersection of Drake Rd with KL Ave. | Traced flow as far as Drake & KL Ave. where it enters K City from Oshtemo Township. | 2018 - Recheck(ed) |
| 36 | STOGKC271000 | Portage Creek | Portage Creek | 7/22/2003-DF 10/15/2004-DF 5/23/2007-DF 7/30/2014 DF | 7/22/2003 10/15/2004 7/30/2014 | 10/23/2003 Lab 5/24/07 7/30/2014 | 10/7/2004 | 10/7/2004 | N/A | FSC | Measurable, ~50 gpm with flouride = 0.073 mg/L and no negative characteristics. | Appears to be groundwater. | 2018 - Recheck(ed) |
| 40 | STOGKC09299 | Mainstem 3 | Kalamazoo River | 7/20/2005-DF 5/20/2009 US 7/25/2014-US 9/13/2018-US | 7/20/2005 5/20/2009 7/25/2014 9/24/2018 | 7/20/2005 7/25/2014 | N/A | N/A | N/A | FSC | Traced flow back to STMHKC09345. Flow enters into this manhole from the north. County Drain | 40-100 gpm flow. Lab fluoride result = 0.12 mg/l.; County Drain | 2018 - Recheck(ed) |
| 41 | STOGKC09303 | Mainstem 3 | Kalamazoo River | 7/20/2005-DF 8/11/2005 US 5/20/2009-US 7/25/2014-US 9/13/2018-US | 7/20/2005 5/20/2009 7/25/2014 9/24/2018 | 7/20/2005 7/25/2014 | N/A | N/A | N/A | FSC | Stream flows through outfall. Lab fluoride result = 0.14 mg/l | Lab fluoride result = 0.17 mg/L; 8-10 gpm; County Drain | 2018 - Recheck(ed) |
| 42 | STOGKC09419 | Mainstem 3 | Kalamazoo River | 7/20/2005-DF 12/3/2009 DF 7/25/2014-US 9/13/2018-NF | 7/20/2005 5/20/2009 7/25/2014 9/13/2018 | 7/20/2005 12/7/2009 7/25/2014 | 8/22/2005 12/3/2009 | 8/22/2005 12/3/2009 | N/A | NF | Per IDC APP Part 2, A.M. Todd is discharging ~175 gpm avg; No Flow on 9/13/2018 | Lab fluoride result = 1.01 mg/l | 2018 - Recheck(ed) |
| 63 | STOWKC27449 | Portage Creek | Portage Creek | 7/16/2003-DF 9/22/2004 DF 4/22/2010-DF 8/14/2014-DF 7/25/2018-DF | -7/16/2003 9/22/2004 4/22/2010 8/14/2014 7/25/2018 | 10/24/2003 4/22/2010 8/013/2018 | 9/23/2004 4/22/2010 | 9/23/2004 4/22/2010 | Jan-06 | FSC | Measurable, >100 GPM, lab flouride = 0.10 - 0.16 mg/l | Flow from Strebor NPDES Permit for remediated groundwater | 2018 - Recheck(ed) |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|---------------|-------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------|------------------------------------------|--------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 86 | STOWKC117 | Mainstem 3 | Spring Valley Lake | 7/11/2005-NF 7/31/2009 DF 4/20/2010-DF 7/11/2014-DF 6/18/2018-DF | 7/11/2005 7/31/2009 4/20/2010 7/11/2014 | 7/31/2009 5/6/2010 | 8/5/2009 5/6/2010 | 8/5/2009 5/6/2010 | N/A | FSC | Flouride = 0.6 - 0.87 mg/l; total Phosphorus = 1.22 mg/L, flow < 5 -25 gpm | Traced flow to Kalamazoo Township (vicinity of Borgess Hospital) | 2018 - Recheck(ed) |
| 90 | STOWKC341010 | Portage Creek | Portage Creek | 7/1/2003-DF 9/22/2004-DF 10/15/04-FSC 5/13/2008 DF 9/3/2014-DF 7/19/2018-DF | 7/1/2003 5/13/2008 9/3/2014 7/19/2018 | 10/22/2003 5/13/2008 9/03/2014 7/23/2018 | 9/23/2004 5/19/2008 | N/A | N/A | FSC | >100 gpm, no negative characteristics, lab flouride = 0.1 - 0.25 ppm | Per D. Skalski, flow originates from drains in area | 2018 - Recheck(ed) |
| 113 | STOWKC223007 | Portage Creck | Portage Creek | 6/24/2003-US 9/3/2003- DF 9/1/2004-DF 6/4/2010-DF 7/24/2014 DF 6/15/2018-DF | 6/24/2003 9/1/2004 6/4/2010 7/24/2014 6/15/2018 | 10/20/2003 11/1/2004 10/13/2010 7/24/2014 | 9/14/2004 10/20/2010 | 9/14/2004 | Bronson Hospital - 8/20/2008 | FSC | 1-2 gpm appears to be groundwater infiltration, lab flouride = 0.16. Inspection of only possible contributor, Bronson Hospital, revealed no connection to storm sewer. | Blockage between upstream manhole and outfall. Standing water at manhole with floating debris. Structure of outfall indicates problems, possibly settlement | 2018 - Recheck(ed) |
| 153 | STOGKC28359 | Axtell Creek | Axtell Creek | 6/18/2003-DF 8/13/2004 DF 3/31/2005-EAN 5/30/2006-DF 4/20/2010 DF 7/29/2014-DF 8/20/2018-DF | 6/18/2003 8/13/2004 4/20/2010 7/29/2014 8/28/2018 | 9/30/2003 11/1/2004 4/20/2010 7/29/2014 8/29/2018 | 8/16/2004 4/20/2010 8/20/2018 | 8/16/2004 4/20/2010 | YMCA - 3/10/2005 | FSC | 50+ gpm is groundwater, lab flouride 0.077 | Foundation Drain at YMCA | 2018 - Recheck(ed) |
| 158 | STOWKC213012 | Axtell Creek | Axtell Creek | 6/17/2003-TC 10/13/2004-DF 5/30/2006-DF 5/1/2008- DF 9/8/2014-DF 8/24/2018-DF | 6/17/2003 10/2004 5/1/2008 9/8/2014 8/24/2018 | 10/13/2004 5/2/2008 9/24/2018 | 10/22/2004 5/1/2008 | 10/22/2004 5/1/2008 | AZON USA Inc 9/6/2005 & 4/19/2006 (Dye) | FSC | Submerged, evaluated at upstream manhole STMHKC21843, lab flouride - 0.056 - 0.187 ppm | ~20 gpm is from underground dewatering | 2018 - Recheck(ed) |
| 229 | STOWAKC156000 | Kalamazoo River/Mainstem 3 | Kalamazoo River | 4/23/2004-DFN 5/25/2005-DF 5/18/2007- DF 7/17/2014-DF 8/02/2018-DF | 4/23/2004 5/18/2007 5/31/2007 6/19/2007 7/17/2014 8/02/2018 | 4/23/2004 5/18/2007 7/17/2014 | 6/21/2007 | N/A | N/A | FSC | ~1 gpm, lab flouride = 017 - 0.22 mg/l, flow appears to be groundwater | Oily sheen on one visit in 2004 has not been observed during multiple visits in recent years | 2018 - Recheck(ed) |
| 232 | STOWKC15373 | Kalamazoo River/Mainstem 3 | Kalamazoo River | 4/23/2004-DF 4/20/2007 DF 5/23/2007-DF 6/1/2007-DF 9/17/2014 DF 8/02/2018-DF | 4/23/2004 4/20/2007 5/23/2007 6/1/2007 9/17/2014 8/02/2018 | 4/26/2004 | N/A | N/A | N/A | FSC | Submerged outfall, trace flow (< 10 gpm) observed at upstream manholes appears to be infiltration | There is a visible "ring of dampness" around the sidewalls at the lower portions of the manholes with small streams of infiltration visible through cracks in the structures | 2018 - Recheck(ed) |
| 349 | STOWKC21187 | Arcadia Creek | Arcadia Creek | 11/22/2006-DF 5/17/2010-DF 7/31/2014-DF 7/12-13/2018-DF | 11/22/2006 5/17/2010 7/31/2014 | 11/27/2006 5/17/2010 7/31/2014 | 12/12/2006 5/18/2010 8/20/2014 | 12/12/2006 5/18/2010 | N/A | FSC | 5-10 gpm, flow is groundwater from dewatering, overflow from Goldsworth Pond and infiltration | Flow from west leg along Michigan Avenue is likely due to a nearby leaky COK hydrant and/or water line. 2014 | 2018 - Recheck(ed) |
| 406 | STOWAKC152204 | Arcadia Creek | Arcadia Creek | 10/9/2006-DF 9/9/2014 DF 8/14/2018-DF | 10/9/2006 9/9/2014 8/14/2018 | 10/10/2006 9/9/2014 8/29/2018 | 10/30/2006 9/22/2008 | 10/30/2006 | N/A | FSC | >15 gpm with no negative effects, lab flouride = 0.61 - 1.06 ppm | Flow is from HVAC units in Kalamazoo Building | 2018 - Recheck(ed) |
| 442 | STOWAKC151278 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF 8/28/2014-DF 7/27/2018-DF | 10/16/2006 9/21/2010 8/28/2014 7/27/2018 | No - unable to safely collect sample for analysis | 8/28/2014 | 8/28/2014 | N/A | FSC | | Flow confirmed as groundwater pumped by sump pump from W Mich Cancer Center from 200 N Park St | 2018 - Recheck(ed) |
| 448 | STOWAKC151282 | Arcadia Creek | Arcadia Creek | 10/10/2006-DF 6/18/2007-DF 6/21/2007 DF 9/17/2014-DF 8/16/2018-DF | 10/10/2006 6/18/2007 6/21/2007 9/17/2014 8/16/2018 | 10/10/2006 9/17/2014 8/16/2018 | 6/21/2007 | 6/21/2007 | N/A | FSC | Verified source of 5-6 gpm flow is AC unit for IT Dept. at City Hall. Bronson Park pools now have connection to sanitary and storm sewers. | Additional flow from east leg of Water St. appears to be groundwater. Lab flouride result = 0.178 mg/l | 2018 - Recheck(ed) |

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|-----|---------------|-------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 424 | STOWAKC162228 | Arcadia Creek | Arcadia Creek | 10/30/2006-DFN 12/16/2010-NF 9/8/2014-NF 8/23/2018 NF | 10/30/2006 12/16/2010 - 9/8/2014 8/23/2018 | 10/30/2006 | 10/30/2006 | 10/30/2006 | Sep-09 | NF | Lab flouride = 1.14 ppm (OLD) | Former illicit connection to storm sewer at Bunca Car Wash corrected in 2010 . Floor drains at Signwriter & Fireplace & Grill need dye testing. | 2018 - Recheck(ed) |
| 6 | STOWAKC152304 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/27/2010 NF 6/27/2014-NF 7/24/2018-NF | 9/28/2006 5/27/2010 6/27/2014 7/24/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 7 | STOWAKC152219 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/26/2010 NF 7/10/2014-NF 6/12/2018-NF | 9/28/2006 5/26/2010 7/10/2014 6/12/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 8 | STOWAKC152218 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/26/2010 NF 7/10/2014-NF 6/12/2018-NF | 9/28/2006 5/26/2010 7/10/2014 6/12/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 9 | STOWAKC152217 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/26/2010 NF 6/27/2014-NF 7/24/2018-NF | 9/28/2006 5/26/2010 6/27/2014 7/24/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 10 | STOWAKC152216 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/26/2010 NF 6/27/2014-NF 7/24/2018-NF | 9/28/2006 5/26/2010 6/27/2014 7/24/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 11 | STOWAKC152207 | Arcadia Creek | Arcadia Creek | 9/28/2006-NF 5/27/2010-NF 6/27/2014-NF 7/24/2018 NF | 9/28/2006 5/27/2010 6/27/2014 7/24/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 97 | STOWAKC152303 | Arcadia Creek | Arcadia Creek | 6/27/2014-NF 6/12/2018-NF | 9/28/2006 5/27/2010 6/12/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 106 | STOWKC22565 | Portage Creek | Portage Creek | 6/25/2003-NF 9/15/2004 DFN 5/30/2006-NF 5/26/2010-NF 9/5/2014 NF 6/6/2018-NF | 6/25/2003 9/15/2004 5/26/2010 9/5/2014 6/6/2018 | 9/17/04 | 9/21/2004 | 9/21/2004 | N/A | NF | Evaluated at upstream catch basins & manhole | | 2018 - Recheck(ed) |
| 115 | STOWKC22555 | Portage Creek | Portage Creek | 6/24/2003-NF 9/3/2003- DF 10/2003-NF 11/10/2003-DF 9/15/2004-DF 9/03/2013-NF 5/30/2018-NF | 6/24/2003 9/15/2004 9/03/2013 5/30/2018 | 11/13/2003 11/1/2004 | 9/17/2004 | 9/21/2004 | Bronson Hospital - 8/20/2008 | NF | Intermittent flow is groundwater, flouride = 0.2 ppm | | 2018 - Recheck(ed) |
| 294 | STOGKC102001 | Mainstem 3 | Kalamazoo River | 12/15/2006-NF 10/18/2010-NF 7/16/2014-NF 7/17/2018-NF | 12/18/2006 10/18/2010 7/16/2014 7/17/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 308 | STOGKC32438 | West Fork Portage Creek | | 11/9/2004-NF 8/14/2008- NF 6/14/2013-NF 8/27/2014-NF 6/12/2018-NF | -11/9/2004 8/14/2008 6/14/2013 8/27/2014 6/12/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 332 | STOGKC215011 | Arcadia Creek | Arcadia Creek | 11/29/2006-NF 9/30/2010-NF 8/20/2014 NF 4/10/2018-NF | 11/29/2006 9/30/2010 8/20/2014 4/10/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 333 | STOGKC215012 | Arcadia Creek | Arcadia Creek | 11/29/2006-NF 9/30/2010-NF 8/20/2014-NF 4/10/2018-NF | 11/29/2006 9/30/2010 8/20/2014 4/10/2018 | N/A | N/A | N/A | N/A | NF | | Catch basin STCBKC211062 is partially filled with sediments - 2018. | 2018 - Recheck(ed) |
| 340 | STOWAKC215009 | Arcadia Creek | Arcadia Creek | 11/27/2006-NF 9/30/2010-NF 8/20/2014-NF 6/6/2018-NF | 11/27/2006 9/30/2010 8/20/2014 6/6/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin, that is breaking up - 6/6/2018 | 2018 - Recheck(ed) |
| 342 | STOGKC191116 | Mainstem 3 | Kalamazoo River | 11/23/2010-NF 8/20/2014-NF 8/03/2018-NF | 11/23/2010 8/20/2014 8/03/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |

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|-----|---------------|-----------------------|---------------------------------|--------------------------------------------------------------|----------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------|
| 343 | STOGKC191067 | Mainstem 3 | Kalamazoo River | 11/23/2010-NF 8/20/2014-NF 8/03/2018- NF | 11/23/2010 8/20/2014 8/03/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 344 | STOGKC191091 | Mainstem 3 | Kalamazoo River | 11/23/2010-NF 8/20/2014-NF 8/03/2018-NF | 11/23/2010 8/20/2014 8/03/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 352 | STOWKC164008 | Arcadia Creek | Arcadia Creek | 11/21/2006-NF 9/27/2010-NF 8/6/2014 NF 6/1/2018-NF | 11/21/2006 9/27/2010 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin | 2018 - Recheck(ed) |
| 371 | STOWKC16365 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF 9/27/2010-NF 8/12/2014-NF 6/1/2018 NF | 11/13/2006 9/27/2010 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at structure, cement at structure is crumbling - 2014 | 2018 - Recheck(ed) |
| 372 | STOWAKC162202 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF 9/23/2010-NF 8/12/2014-NF 6/1/2018 NF | 11/13/2006 9/23/2010 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 373 | STOWAKC162032 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF 9/23/2010-NF 8/12/2014-NF 6/1/2018 NF | 11/13/2006 9/23/2010 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | Sediment, debris in catch basins, manhole and associated piping. | Evaluated at upstream catch basins, manhole | 2018 - Recheck(ed) |
| 374 | STOWAKC162200 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF 9/23/2010-NF 8/12/2014-NF 6/1/2018 NF | 11/13/2006 9/23/2010 - 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basins, with sediments | 2018 - Recheck(ed) |
| 375 | STOWAKC162201 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF 9/23/2010-NF 8/12/2014-NF 6/1/2018 NF | 11/13/2006 9/23/2010 8/12/2014 6/1/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole, filled with sediments | 2018 - Recheck(ed) |
| 395 | STOWAKC151300 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/15/2010- NF 8/6/2014-NF 7/27/2018-NF | - 10/9/2006 9/15/2010 8/6/2014 7/27/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 396 | STOWAKC151298 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/15/2010 NF 8/6/2014-NF 7/27/2018-NF | - 10/9/2006 9/15/2010 8/6/2014 7/27/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 399 | STOWAKC152200 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/14/2010 NF 8/6/2014-NF 7/27/2018-NF | 10/9/2006 9/14/2010 8/6/2014 7/27/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 400 | STOWAKC152208 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/14/2010 NF 6/27/2014-NF 9/13/2018-NF | 10/9/2006 9/14/2010 6/27/2014 9/13/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 401 | STOWAKC152205 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 9/14/2010 NF 8/16/2018-NF | 10/9/2006 9/14/2010 8/16/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manholes | 2018 - Recheck(ed) |
| 402 | STOWAKC152202 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 8/3/2010-NF 9/9/2014 NF 8/14/2018-NF | 10/9/2006 8/3/2010 9/9/2014 8/14/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 403 | STOWAKC152213 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 8/11/2010 NF 8/6/2014-NF 7/27/2018-NF | 10/9/2006 8/11/2010 8/6/2014 7/27/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin | 2018 - Recheck(ed) |
| 404 | STOWAKC152206 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 8/11/2010 NF 6/27/2014 8/08/2018-NF | 10/9/2006 8/11/2010 6/27/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 405 | STOWAKC152203 | Arcadia Creek | Arcadia Creek | 10/9/2006-NF 8/3/2010-NF 6/27/2014-NF 8/08/2018-NF | 10/9/2006 8/3/2010 6/27/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 407 | STOWAKC152225 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 5/27/2010 NF 7/10/2014-NF 6/21/2018-NF | 10/6/2006 5/27/2010 7/10/2014 6/21/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |

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|-----|---------------|-----------------------|---------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------|
| 408 | STOWAKC152215 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 8/4/2010 NF 8/6/2014-NF 7/17/2018-NF | - 10/6/2006 8/4/2010 8/6/2014 7/17/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 409 | STOWAKC152214 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 8/4/2010 NF 8/6/2014-NF 7/17/2018-NF | - 10/6/2006 8/4/2010 8/6/2014 7/17/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 410 | STOWAKC152226 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 8/4/2010 NF 8/6/2014-NF 7/17/2018-NF | - 10/6/2006 8/4/2010 8/6/2014 7/17/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 411 | STOWAKC152224 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 6/8/2010 NF 7/10/2014-NF 6/21/2018-NF | - 10/6/2006 6/8/2010 7/10/2014 6/21/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 412 | STOWAKC152223 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 6/8/2010 NF 7/10/2014-NF 6/21/2018-NF | - 10/6/2006 6/8/2010 7/10/2014 6/21/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 413 | STOWAKC152222 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 6/8/2010 NF 7/10/2014-NF 6/21/2018-NF | - 10/6/2006 6/8/2010 7/10/2014 6/21/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 414 | STOWAKC152221 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 6/8/2010 NF 7/10/2014-NF 7/17/2018-NF | - 10/6/2006 6/8/2010 7/10/2014 7/17/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 415 | STOWAKC152220 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF 6/8/2010 NF 7/10/2014-NF 6/21/2018-NF | - 10/6/2006 6/8/2010 7/10/2014 6/21/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | 2018 - Recheck(ed) |
| 438 | STOWKC346001 | Portage Creek | Portage Creek | 10/2003-DFN 9/23/2004- DF 12/2/2009-DF 10/12/2011-DF 9/24/2013-NF 8/25/2014 NF 6/6/2018-NF | 10/2004 9/23/2004 12/2/2009 10/12/2011 9/24/2013 8/25/2014 6/6/2018 | 10/31/2003 12/2/2009 10/12/2011 | 9/27/2004 12/3/2009 10/13/2011 | 9/27/2004 12/3/2009 10/13/2011 | N/A | NF | 2-3 gpm appears to be groundwater, lab flouride = 0.133 mg/L | Diesel fuel odor at upstream manhole 10/12/11 not evident during recheck | 2018 - Recheck(ed) |
| 439 | STOWKC346002 | Portage Creek | Portage Creek | 10/2003-DF 9/23/2004 DF 12/2/2009-DF 10/12/2011-DF 8/25/2014-NF 6/6/2018 NF | - 10/2003 9/23/2004 12/2/2009 10/12/2011 - 8/25/2014 6/6/2018 | 10/31/2003 12/2/2009 10/12/2011 | 9/27/2004 12/3/2009 10/13/2011 | 9/27/2004 12/3/2009 10/13/2011 | 2008 | NF | 7-8 gpm with lab flouride = 0.117mg/L and no negative characteristics | Flow is groundwater | 2018 - Recheck(ed) |
| 440 | STOWAKC151286 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF 7/16/2014 NF 8/08/2018-NF | 10/16/2006 9/21/2010 7/16/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 441 | STOWKC15707 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF 8/6/2014 NF 7/27/2018-NF | 10/16/2006 9/21/2010 8/6/2014 7/27/2018 | N/A | N/A | N/A | N/A | NF | | | 2018 - Recheck(ed) |
| 443 | STOWAKC151290 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF 7/16/2014-NF 8/08/2018 NF | 10/16/2006 9/21/2010 7/16/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin | 2018 - Recheck(ed) |
| 444 | STOWAKC151288 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF 7/16/2014-NF 8/08/2018-NF | 10/16/2006 9/21/2010 7/16/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | 2018 - Recheck(ed) |
| 447 | STOWKC15906 | Arcadia Creek | Arcadia Creek | 10/10/2006-NF 8/3/2010 NF 6/27/2014-NF 8/08/2018-NF | 10/10/2006 8/3/2010 6/27/2014 8/08/2018 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin | 2018 - Recheck(ed) |
| 167 | STOWKC28301 | Axtell Creek | Axtell Creek | 6/17/2003-NF 7/12/2004 NF 5/15/2008-NF | -6/17/2003 7/12/2004 5/15/2008 | N/A | N/A | N/A | N/A | NF | Submerged outfall was bulkheaded directly upstream. | Upstream structures reconfigured during 2007 reconstruction of intersection at Howard & Crosstown Pky. | Abandoned - See File |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|--------------------------------|-----------------------------------|---------------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|----------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------|
| 65 | STOWKC341012 | Portage Creek | Portage Creek | 7/16/2003-DF 10/4/2004 DF 6/29/2007-DF 6/20/2008-DF | 7/16/2003 10/4/2004 6/29/2007 6/20/2008 | 10/20/2003 6/20/2008 | N/A | N/A | Sep-07 | FSC | Measurable 15 gpm, lab flouride = 0.08 ppm, appears to be groundwater | | City of Portage |
| 66 | STOWKC342000 | Portage Creek | Portage Creek | 7/16/2003-CNL 11/2/2004-CNL | 7/16/2003 11/2/2004 | N/A | N/A | N/A | N/A | FSC | Only one catch basin associated with outfall appears to be filled with dirt | Dye testing proved inconclusive due to blockage in catch basin | City of Portage |
| 67 | STOWAKC342502 | Portage Creek | Portage Creek | 7/16/2003-CNL 11/2/2004-CNL | 7/16/2003 11/2/2004 | N/A | N/A | N/A | N/A | FSC | Only one catch basin associated with outfall appears to be filled with dirt | Dye testing proved inconclusive due to blockage in catch basin | City of Portage |
| 291 | STOWAKC342500 | West Fork Portage Creek | West Fork Portage Creek | 12/8/2004-TC 5/31/2005-DF/TC 6/12/2007-DF | 12/14/2004 6/13/2007 | 6/2/2005 6/13/2007 | 6/19/2007 | 6/19/2007 | 2009 | FSC | 2-3 gpm from Theo & Stacy's Restaurant | Lab fluoride result = 1.03 mg/l | City of Portage |
| 12 | STOGKP022000 | Mainstem 3 | Kalamazoo River | 9/19/2006-NF | 9/19/2006 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | City of Portage |
| 60 | STOWPC032001 | Portage Creek | Portage Creek | 7/16/2003-NF 10/13/2004-NF 5/21/2008-NF | 7/16/2003 10/13/2004 5/21/2008 | N/A | N/A | N/A | N/A | NF | | | City of Portage |
| 61 | STOWPC032002 | Portage Creek | Portage Creek | 7/16/2003-NF 10/13/2004-NF 5/21/2008-NF | 7/16/2003 10/13/2004 5/21/2008 | N/A | N/A | N/A | N/A | NF | | | City of Portage |
| 292 | STOWAKC342501 | West Fork Portage Creek | West Fork Portage Creek | 12/8/2004-NF 8/12/2008 NF | 12/8/2004 8/12/2008 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream catch basins, outfall under roadway | | City of Portage |
| 185 | STOGPC035 | Portage Creek | Portage Creek | 5/18/2005-NF 6/29/2009 NF | 5/18/2005 6/29/2009 | N/A | N/A | N/A | N/A | NF | | Eliminated during road construction | Deleted |
| 186 | STOGPC033 | Portage Creek | Portage Creek | 5/18/2005-NF 6/29/2009 NF | 5/18/2005 6/29/2009 | N/A | N/A | N/A | N/A | NF | | Eliminated during road construction | Deleted |
| 276 | STOGKP021000 (STOGKC021000) | Kalamazoo River/Mainstem 3 | Davis Creek | 4/1/2005-NF 7/17/2009- NF 8/21/2013-NF | 4/1/2005 7/17/2009 8/21/2013 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream catch basin | Piping redirected to STOGKP021004 | Deleted |
| 420 | STOWKC15838 | Arcadia Creek To Portage Creek | Kalamazoo River | 10/6/2006-NF | 10/9/2006 | N/A | N/A | N/A | N/A | NF | | Arcadia Creek Outfall to Portage Creek at Kalamazoo River | Deleted |
| 226 | STOGKC195008 | Arcadia Creek | | 4/25/2005-NF 5/26/2009 CNL | 4/25/2005 5/26/2009 | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall and associated pipng have been removed | Outfall No Longer Exists | Deleted |
| 95 | STOGKC236004 | Mainstem 3 | Kalamazoo River | 6/6/2005-NF 6/10/2009- NF | 6/6/2005 6/10/2009 | Deleted | Deleted | Deleted | Deleted | Deleted | | Converted to private outfall 9/09 | Deleted |
| 243 | STOWKC201011 | Arcadia Creek | | 4/21/2005-NF | 4/21/2005 | Deleted | Deleted | Deleted | Deleted | Deleted | | Storm sewer owned by WMU | Deleted |
| 2 | STOGKC28846 | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | | Outfall abandoned | Deleted, no piping associated with this outfall any longer. | Deleted |
| 3 | STOWKC15912 | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | | Private Property | Deleted, no longer exists | Deleted |
| 4 | STOWKC15914 | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | | Private Property | Deleted, no longer exists | Deleted |
| 5 | STOWKC15910 | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | Deleted | | Private Property | Deleted, no longer exists | Deleted |
| 450 | Private Outfall? | Portage Creek | Portage Creek | 7/17/2003 | 7/17/2003 | Deleted | | | | | | 51.1. | Deleted |
| 451 | STOWKC34344 | Deleted | | | | | | | | | | Deleted, structure changed to "culvert-out". | Deleted |
| 449 | STOWKC215013 | Arcadia Creek | Arcadia Creek | 11/29/2006 | 11/29/2006 | Outfall Never Created During Construction | Outfall Never Created During Construction | Outfall Never Created During Construction | Outfall Never Created During Construction | Outfall Never Created During Construction | | During road reconstruction, outfall was not created. | Does Not Exist |
| 131 | STOWKC147 | Mainstem 3 | Kalamazoo River | 6/22/2005-CNL/NF 7/13/2009-DF | 6/22/2005 7/13/2009 | N/A | N/A | N/A | N/A | FSC | Schippers Lane Drain | | Kal. County Outfall - See File |
| 183 | STOGKC366020 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/3/2005-DF/TC 6/7/2007-DF | 5/3/2005 | 5/3/2005 | 6/21/2007 | 6/21/2007 | N/A | FSC | 3-15 gpm is groundwater from Kal. County Rd. Commission property | Lab result for flouride is 0.123 mg/l. | KCRC |
| 70 | STOGKC102103 | Mainstem 3 | Kalamazoo River | 7/14/2005-NF 6/4/2009- NF | 7/14/2005 6/4/2009 | N/A | N/A | N/A | N/A | NF | | | KCRC |
| 72 | STOGKC102101 | Mainstem 3 | Kalamazoo River | 7/13/2005-NF 6/4/2009- NF | 7/13/2005 6/4/2009 | N/A | N/A | N/A | N/A | NF | | | KCRC |
| 176 | STOGCT305 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/6/2005-NF 5/26/2009- NF | 5/6/2005 5/26/2009 | N/A | N/A | N/A | N/A | NF | | | KCRC |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|--------------------------------|-------------------------------|---------------------------------|-----------------------------------------------|--------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|------------------------------------|------------------|----------------------------------------------------------|----------------------------------------------------------------------------|----------------------|
| 177 | STOGCT3013 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/6/2005-NF 5/26/2009- NF | 5/6/2005 5/26/2009 | N/A | N/A | N/A | N/A | NF | Partially submerged | | KCRC |
| 181 | STOGKC252001 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/6/2005-CNL 5/12/2005 NF 6/10/2009-NF | 5/6/2005 6/10/2009 | N/A | N/A | N/A | N/A | NF | 2009 - Pipe buried, excessive vegetation | Pipe corroded and filled with dirt | KCRC |
| 182 | STOGKC252002 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/6/2005-CNL 5/12/2005 NF 6/10/2009-NF | 5/6/2005 6/10/2009 | N/A | N/A | N/A | N/A | NF | 2009 - Pipe buried, excessive vegetation | Pipe collapsed, some sediment | KCRC |
| 198 | STOGCT312002 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/12/2005-NF 5/20/2009 NF | 5/12/2005 5/20/2009 | N/A | N/A | N/A | N/A | NF | | Heavy sediment | KCRC |
| 199 | STOGCT3114 | Kalamazoo River/Mainstem 3 | Davis Creek | 5/12/2005-NF 5/20/2009-NF | 5/12/2005 5/20/2009 | N/A | N/A | N/A | N/A | NF | | | KCRC |
| 345 | STOGKC362003 | Kalamazoo River/Mainstem 3 | | 11/23/2004-NF 7/22/2008-NF | 11/23/2004 7/22/2008 | N/A | N/A | N/A | N/A | NF | | | KCRC |
| 394 | STOGKC316014 | West Fork Portage Creek | | 11/10/2004-NF 8/28/2008-NF | 11/10/2004 8/28/2008 | N/A | N/A | N/A | N/A | NF | | | KCRC |
| 452 | STOGKC101306 | Mainstem 3 | Kalamazoo River | | | | | | | | | | KCRC |
| 453 | STOGKC101307 | Mainstem 3 | Kalamazoo River | 8/11/2003-DF | 8/11/2003 | | | | | | | | KCRC |
| 26 | STOWKC152001 | Portage Creek | Portage Creek | 8/11/2003-DF 10/13/2004-TC | 8/11/2003 10/13/2004 | 10/24/03 | N/A | N/A | N/A | FSC | 1-3 gpm | Fuel oil odor | MDOT Outfall |
| 172 | STOWKC221445 | Axtell Creek | Crosstown Ponds | 6/17/2003-DF 8/13/2004 DF 5/9/2008-DF | -6/17/2003 8/13/2004 5/9/2008 | 10/1/2003 11/1/2004 | 8/13/2004 | 8/13/2004 | Weiss Medical Building - 9/20/2005 | FSC | Outfall submerged, 20 gpm flow evaluated upstream | Flow at two of six storm grates upstream is from basement dewatering | MDOT Outfall |
| 256 | STOGKC296012 | Arcadia Creek | | 4/13/2005-NF/CNL | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Evaluated at upstream catch basin | Outfall is buried. Could not locate. | MDOT Outfall |
| 260 | STOGKC296013 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 261 | STOGKC29552 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 262 | STOGKC29550 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 263 | STOGKC29548 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 264 | STOGKC29546 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 265 | STOGKC29544 | Arcadia Creek | | 4/13/2005-NF | 4/13/2005 | N/A | N/A | N/A | N/A | FSC | Outfall partially filled with dirt and partially buried. | | MDOT Outfall |
| 17 | STOWAKC222501 | Axtell Creek | Axtell Creek | 8/21/2003-TC 10/21/2004-NF 7/14/2008-NF | 8/21/2003 10/21/2004 7/14/2008 | N/A | N/A | N/A | N/A | NF | Under bridge | Evaluated at upstream manholes | MDOT Outfall |
| 18 | STOWKC221409 | Axtell Creek | Axtell Creek | 8/21/2003-NF 7/12/2004 NF 7/14/2008-NF | -8/21/2003 7/12/2004 7/14/2008 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 23 | STOWKC152000 | Portage Creek | Portage Creek | 8/11/2003-NF 10/13/2004-NF 7/14/2008-NF | 8/11/2003 10/13/2004 7/14/2008 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 24 | STOWKC151132 | Portage Creek | Portage Creek | 8/11/2003-NF 10/13/2004-NF 7/14/2008-NF | 8/11/2003 10/13/2004 7/14/2008 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 25 | STOWKC151124 | Portage Creek | Portage Creek | 8/11/2003-NF 10/13/2004-NF 7/14/2008-NF | 8/11/2003 10/13/2004 7/14/2008 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 93 | STOGKC232020 (STOGKT232020) | Mainstem 3 | Kalamazoo River | 6/6/2005-NF 6/10/2009- NF | 6/6/2005 6/10/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 94 | STOGKC232024 (STOGKT232024) | Mainstem 3 | Kalamazoo River | 6/6/2005-NF 6/10/2009- NF | 6/6/2005 6/10/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 127 | STOWKC146 | Mainstem 3 | Kalamazoo River | 6/22/2005-NF 8/6/2009- NF | 6/22/2005 8/6/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 128 | STOWKC146513 | Mainstem 3 | Kalamazoo River | 6/22/2005-NF 8/6/2009- NF | 6/22/2005 8/6/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 138 | STOGKC12528 | Mainstem 3 | Kalamazoo River | 6/21/2005-CNL/NF 7/24/2009-NF | 6/21/2005 7/24/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|------------|----------------------------|--------------------------------|---------------------------------|----------------------------------------------------------------------------|--------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|--------------------|---------------------------------------------------------------|---------------------------------------------|-------------------------------------|
| 147 | STOWAKC212201 | Axtell Creek | Axtell Creek | 6/18/2003-TC 7/12/2004 NF 7/10/2008-NF | 6/18/2003 7/12/2004 7/10/2008 | N/A | N/A | N/A | N/A | NF | Under bridge | Evaluated at upstream manholes | MDOT Outfall |
| 148 | STOWAKC212202 | Axtell Creek | Axtell Creek | 6/18/2003-TC 10/21/2004-NF 12/2/2009-NF | 6/18/2003 10/21/2004 12/2/2009 | N/A | N/A | N/A | N/A | NF | Under bridge | Evaluated at upstream manholes | MDOT Outfall |
| 149 | STOWAKC212200 | Axtell Creek | Axtell Creek | 6/18/2003-TC 10/21/2004-DF 6/11/2007-NF 6/18/2007 NF 6/25/2007-NF | 6/18/2003 10/21/2004 | 10/22/2004 | 10/22/2004 | 10/22/2004 | N/A | NF | Outfall is under bridge. Evaluated at upstream manhole. | | MDOT Outfall |
| 223 | STOGKC30158 | Arcadia Creek | | 4/25/2005-NF 6/18/2009 NF | 4/25/2005 6/18/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 224 | STOGKC29367 | Arcadia Creek | | 4/25/2005-NF 6/16/2009 NF | 4/25/2005 6/16/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 225 | STOGKC29366 | Arcadia Creek | | 4/25/2005-NF 6/16/2009 NF | 4/25/2005 6/16/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 258 | STOGKC296010 | Arcadia Creek | | 4/13/2005-NF 6/16/2009 NF | 4/13/2005 6/16/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 259 | STOGKC296011 | Arcadia Creek | | 4/13/2005-NF 6/16/2009 NF | 4/13/2005 6/16/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 267 | STOWKC30159 | Arcadia Creek | | 4/12/2005-NF 10/14/2009-NF | 4/12/2005 10/14/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 335 | STOWAKC215002 | Arcadia Creek | Arcadia Creek | 11/28/2006-NF | 11/28/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 336 | STOWAKC215007 | Arcadia Creek | Arcadia Creek | 11/28/2006-NF | 11/28/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 337 | STOWAKC215001 | Arcadia Creek | Arcadia Creek | 11/28/2006-NF | 11/28/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 338 | STOWAKC215000 | Arcadia Creek | Arcadia Creek | 11/28/2006-NF | 11/28/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 339 | STOWAKC215006 | Arcadia Creek | Arcadia Creek | 11/28/2006-NF 11/27/2006-NF | 11/28/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 341 | STOWAKC215008 | Arcadia Creek | Arcadia Creek | 11/2//2006-NF 11/22/2006-NF | 11/27/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| 346 | STOWAKC215003 | Arcadia Creek | Arcadia Creek | 9/30/2010-NF | 11/22/2006 9/30/2010 | N/A | N/A | N/A N/A | N/A | NF | | | MDOT Outfall |
| 347 | STOWAKC215010 | Arcadia Creek | Arcadia Creek | 11/22/2006-NF | 11/22/2006 | N/A | N/A | | N/A | NF | | | MDOT Outfall MDOT Outfall |
| 348 | STOWAKC215005 | Arcadia Creek | Arcadia Creek | 11/22/2006-NF | 11/22/2006 | N/A N/A | N/A | N/A | N/A | NF NF | | | |
| 354 355 | STOWKC16906 STOWKC16661 | Arcadia Creek Arcadia Creek | Arcadia Creek Arcadia Creek | 11/21/2006-NF 11/21/2006-NF | 11/21/2006 11/21/2006 | | N/A N/A | N/A N/A | Oct-10 N/A | NF NF | | | MDOT Outfall MDOT Outfall |
| | | | | | | N/A | | | | | | Evaluated at upstream catch | |
| 376 | STOWAKC162033 | Arcadia Creek | Arcadia Creek | 11/13/2006-NF | 11/13/2006 | N/A | N/A | N/A | N/A | NF | | basins Evaluated at upstream catch | MDOT Outfall |
| 416 | STOWAKC152209 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF | 10/6/2006 | N/A | N/A | N/A | N/A | NF | | basin(s) Evaluated at upstream catch | MDOT Outfall |
| 417 | STOWAKC152211 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF | 10/6/2006 | N/A | N/A | N/A | N/A | NF | | basin(s) | MDOT Outfall |
| 418 | STOWAKC152210 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF | 10/6/2006 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | MDOT Outfall |
| 419 | STOWAKC152212 | Arcadia Creek | Arcadia Creek | 10/6/2006-NF | 10/6/2006 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basin(s) | MDOT Outfall |
| 422 | STOWAKC162300 | Arcadia Creek | Arcadia Creek | 10/30/2006-NF | 10/30/2006 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream catch basins | MDOT Outfall |
| 423 | STOWAKC162227 | Arcadia Creek | Arcadia Creek | 10/30/2006-NF | 10/30/2006 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | MDOT Outfall |
| 445 | STOWAKC151272 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF 9/21/2010-NF | 10/16/2006 9/21/2010 | N/A | N/A | N/A | N/A | NF | | Evaluated at upstream manhole | MDOT Outfall |
| 446 | STOWAKC151268 | Arcadia Creek | Arcadia Creek | 10/16/2006-NF | 10/16/2006 | N/A | N/A | N/A | N/A | NF | | | MDOT Outfall |
| # | STOWKC152041 | Mainstem 3 | Kalamazoo River | | | | | | | | | | MDOT Outfall |
| 282 | STOGKC3096 | West Fork Portage Creek | | 3/29/2005-NF 6/26/2009 NF | 3/29/2005 6/26/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Structure |
| 283 | STOGKC3094 | West Fork Portage Creek | | 3/29/2005-NF 6/26/2009 NF | 3/29/2005 6/26/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Structure |
| 284 | STOGKC30109 | West Fork Portage Creek | | 3/29/2005-NF 6/18/2009 NF | 3/29/2005 6/18/2009 | N/A | N/A | N/A | N/A | NF | | | MDOT Structure |
| 421 | STOWKC151119 | Arcadia Creek | Kalamazoo River | 10/6/2006-DF | 10/9/2006 | N/A | N/A | N/A | N/A | FSC | 70+ gpm | Arcadia Creek Outfall to Kalamazoo River | No Action Required |
| 235 | STOWKC20169 | Arcadia Creek | | 4/21/2005-NF 7/23/2009 DF | 4/21/2005 7/23/2009 | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | | Campus Court at Knollwood | Outfall eliminated |
| 237 | STOGKC297002 | Arcadia Creek | | 4/21/2005-NF 6/16/2009 NF | 4/21/2005 6/16/2009 | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | | Campus Court at Knollwood | Outfall eliminated |
| 246 | STOGKC297004 | Arcadia Creek | | 4/21/2005 NF/CNL 6/16/2009-CNL | 4/21/2005 6/16/2009 | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | Outfall Eliminated | | Campus Court at Knollwood | Outfall eliminated |
| 236 | STOWKC191011 | Arcadia Creek | | 4/21/2005-NF 7/22/2009 NF | 4/21/2005 7/22/2009 | N/A | N/A | N/A | N/A | NF | | | Private Detention Basin Overflow |

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| 1 | | River/Creek Sub Basin | Specific Water Body Terminus | Historical Inspection Dates/Codes | Field Observation Form Complete | Water Quality Analysis Form Complete | Field Investigation Form Complete | Source Investigation Form Complete | Facility Inspections Complete | Most Recent Code | Condition | Notes | Next Proposed Action |
|-----|--------------|-----------------------|---------------------------------|--------------------------------------------|------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------|------------------|--------------------------------------|-----------------------------------------------|----------------------|
| 32 | STOGKC34334 | Portage Creek | Portage Creek | 7/22/2003-NF 9/22/2004- NF 5/30/2008-NF | -7/22/2003 9/22/2004 5/30/2008 | N/A | N/A | N/A | N/A | NF | | | Private Outfall |
| 33 | STOGKC34338 | Portage Creek | Portage Creek | 7/22/2003-NF 9/22/2004- NF 5/30/2008-NF | -7/22/2003 9/22/2004 5/30/2008 | N/A | N/A | N/A | N/A | NF | | | Private Outfall |
| 248 | STOWKC195012 | Arcadia Creek | | 4/19/2005-NF 7/23/2009 NF | 4/19/2005 7/23/2009 | N/A | N/A | N/A | N/A | NF | Evaluated at upstream catch basin | Submerged & surrounded by heavy vegetation | Private Outfall |
| 69 | STOGKC102102 | Mainstem 3 | Kalamazoo River | 7/14/2005-NF 6/4/2009- NF | 7/14/2005 6/4/2009 | N/A | N/A | N/A | N/A | NF | | | Removed |
| 73 | STOGKC102104 | Mainstem 3 | Kalamazoo River | 7/13/2005-NF 6/4/2009- NF | 7/13/2005 6/4/2009 | N/A | N/A | N/A | N/A | NF | | | Removed |

NF - Dry, No Flow
FSC - Flow and Flow Source Determination Complete
FSI - Flow and Flow Determination Incomplete

CNL - Could Not Locate
DF - Dry Weather Flow, No Negative Signs

Priority Area

EAN - Enforcement Action Needed EAO - Enforcement Action Ongoing

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TABLE 5: City of Kalamazoo Retention/Detention Basins

| Location | Approximate Year Constructed | Outfall ID's | Approximate Size | Comments | Inspection & Maintenance |
|-------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------|---------------------|---------------------------------------------------------|---------------------------------------------------------------------|
| Benton Ave. , between Laird and Kent | 1977 | STOWKC3274 STOWKC3275 | 39,000 sq. ft. | | Inspected 6/5/2019, Outfall Good, needs tree removed from fence |
| Wood St. (3400 Block) | 1992 | STOWKC32448 | 9,000 sq. ft. | | Inspected 6/5/2019, Outfall Good, needs brush & fence O&M trimming |
| Kendall & Solon St. (SW corner) | 1961 | STOGKC20396 | 43,000 sq. ft. | Overflow structure to area east of Kendall | Inspected 6/11/2019, Good Condition |
| Stone St. & W. Michigan Ave. (south of intersection) | 2005 | STOGKC215011 STOGKC215012 | 7,000 sq. ft. | | Inspected 6/7/2019, Good Condition |
| Between W. Michigan & Stadium Dr. (4000 Block - behind trailer park) | 1977 | STOWKC19372 STOWKC19371 STOWKC19376 STOWKC192001 | 500,000 sq. ft. | Discharge flow control structure to Arcadia Creek | Inspected 6/7/2019, Good Condition, manhole needs cover |
| Cumberland St. & Grand Prairie Ave. | 1980 | STOGKC078 STOWKC0712 | 33,000 sq. ft. | | Inspected 6/6/2019, Outfall Good Condition, brush needs trimming |
| E. of Sage St. & S. of Turwill Ln. | 1978 | STOWKT18259 STOWKT18258 STOWKT181019 | 172,000 sq. ft. | | Inspected 6/6/2019, Debris, Outfall needs cleaning |
| 2716 S. Burdick St. | 1960"s ? | STOGKC271030 | 5,000 sq. ft. | Landlocked | Inspection 8/23/2016, Good Condition, Fence needs repair |

Note: All stormwater basins will be inspected on an annual basis with maintenance performed as necessary and as resources allow.



Table 6 - CITY OF KALAMAZOO MUNICIPAL OPERATIONS STORMWATER PRETREATMENT SITES (Revised 2021)

| Map Unit | Project Address/ Location | Project Description | Stormwater Treatment BMP/Device | Number of Devices | Responsible Party | Year Installed | Inspection Schedule | Inspection and Maintenance |
|----------|-----------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------------------------------|-------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 415 E. Stockbridge Ave. | BMP to address stormwater quality and control. Public Service's Stockbridge Facility | Aqua Swirl AS-4 | 1 | Public Services (separate SWPPP) | 2003 | Annual | Inspected summer 2018 and September 2019; Good Condition, No Maintenance required |
| 2 | 150 E. Crosstown Parkway | Conversion of existing commercial building to new Public Safety Headquarters | Stormceptor | 2 | Public Safety (general SWPPI) | 2003 | Annual | Inspected 4/21/2020:Fair Condition, some oily sheen & some chemicals? on 1 unit - unit could use vactoring. |
| 3 | Parkview Ave Darmo St. to 1/2 mile west | Road Reconstruction Project | Stormceptor | 11 | Public Services | 2002 | Annual | Inspected 4/16/2020; Most in Good Condition, 5 may require Maintenance as possible |
| 5 | 1415 N. Harrison St. | New Road Construction at Water Reclamation Plant | Stormceptor | 1 | Public Services (separate SWPPP) | 2003 | Annual | Inspected 2019; Good Condition. |
| 6 | 251 Mills St. | Construction of new City Park's Department Office Building | Aqua Swirl AS-2 | 1 | Parks & Recreation (separate SWPPP) | 2004 | Annual | Inspected Spring 2019; Good Condition, No Maintenance required |
| 7 | Woods Lake - SW shore area | Natural Treatment System at outfall to lake from an approximate 138 acre drainage area | Treatment Train | numerous | Public Services (general SWPPI) | 2003 | Annual | Inspected May 2020; Fair to Good Condition. |
| 8 | 459 N. Burdick St. | City of Kalamazoo Metro Transit, Transportation Center | Vortechnics 200 | 2 | Metro Transit (separate SWPPP) | 2006 | Annual | Inspected 2018; Good Condition. |
| 9 | Water St. & Edwards St. at Kalamazoo Ave. | Arcadia Festival Site | Aqua Swirl AS-2 & Vegetative | 2 - AS-2's | DKI (general SWPPI) | 2004 | Annual | Inspected 2018; Good Condition. |
| 10 | 530 N. Rose St. | City of Kalamazoo Metro Transit Headquarters | Aqua Swirl AS-2 | 2 | Metro Transit (separate SWPPP) | 2005 | Annual | Inspected 2018; Good Condition. |
| 11 | 601 N. Park St. | Public Safety Station | HydroKleen, "Catch- All" catch basin filter inserts | 6 | Public Safety (general SWPPI) | 2007 | Annual | Inspected 4/21/2020: Fair Condition, leaves & mulch accumulating on top of each unit; regular maintenance needed to keep units at least somewhat what free of accumulating leaves & mulch. |
| 12 | Kendall St. & Howard St. (east roundabout) | City of Kalamazoo Public Services, Arboretum Parkway connector & roundabouts | Contech CDS separator | 1 | Public Safety (general SWPPI) | 2010 | Annual | Inspected 2018; Good Condition. |
| 13 | 128 VanderSalm Court | City of Kalamazoo Public Services, STIOKC221323 Vandervalk 2011 storm relief station | two 50 gym pumps & Aqua-Swirl | 1 | Public Services (Chris Nelson, KWRP) | 2011 | Annual | Inspected 2020; Good Condition |
| 14 | 500 Collins Road | Kalamazoo Farmers Market | Aqua Swirl AS-6 | 1 | Public Services | NA | Annual | Scheduled for 2021 |
| 15 | 1203 Bryant St. | Public Safety Station #2 | Non-Descript Catch Basin | 1 | Public Safety | NA | Annual | Inspected 2020; Good Condition |
| 16 | 901 Davis St. | Davis Street Park | Rain Garden | 1 | Parks & Recreation (separate SWPPP) | 2017 | Annual | Scheduled for 2021 |

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Stormwater IDEP Enforcement Tracking Table Table 7 Supplement 2017

| Name of Business: | | | | | |
|-------------------------------------|----------------------------------------|------------------------------------------------------------------------|----------------------------------------|---|------------------------------------------|
| Address: | | | | | |
| Property Owner Name: | | | | | |
| Receiving Stream: | | | | | |
| Outfall: | | | | | |
| Date of Action: | | | | | |
| Type of Action: | | | | | |
| Comments: | | | | | |
| Staff Name: | | | | | |
| Stan Name. | | | | | |
| | | | | | |
| | | | | | |
| Initial Situation Assessment | | | | | |
| Indicate with "✓" → | | | | | |
| | Level 3. Higher level of determined or | Level 2. Medium level of determined | Level 1. Lower level of determined or | | Level 0. No level of reasonable |
| | reasonable potential severity relative | or reasonable potential severity | reasonable potential severity relative | | potential severity relative to impact on |
| | to impact on water quality – Initial | relative to impact on water quality – | to impact on water quality - Initial | | water quality - no field assessment |
| | assessment within 48 hours. | Initial assessment within 30 days. | assessment within 60 days. | | deemed necessary. |
| | ussessment within 40 hours. | mital assessment within 50 days. | assessment within 60 days. | | decined necessary. |
| Date: | | | | | |
| Comments: | | | | | |
| | | | | , | |
| Ordinance Related Response | | | | | |
| Indicate with "✓" → | | | | | |
| | Step 1. Verbal Notice of Violation by | Step 2. First Written Notice of | Step 3. Second Written Notice of | | Step 4. City site abatement or/other |
| | Department of Public Services within | Violation by Public Services within 60 | Violation within 14 days of | | legal response after non-compliance |
| | 90 days of initial assessment | days of non-compliance of Verbal Notice or otherwise warranted from | determination of non-compliance of | | of directives in second Written Notice |
| | determination for lower severity risk. | Assessment. | directives in first Written Notice. | | or warranted from Assessment. |
| | , | | | | |
| Date: | | | | | |
| Comments: | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Table 8 Supplement 2017 - Updated 2021

| Site Plan Review - V | Wellhead Protection a | nd Stormwater Compliance Checklist | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------|-----------------|--|
| Site Name: | | · | | |
| Site Address: | | | | |
| Wellhead Protection | Answer | | Comments | |
| Is the site within a Wellhead Protection Area (WHPA)? | | | | |
| If yes, 1-year, 5-year, or 10-year Capture Zone? | | | | |
| If yes, which Water Pumping Station(s)? | | | | |
| Zoning Type? | | | | |
| See Performance Standards, Section 5.3 Table 4 for stormwater discharge strategies in WHPAs. | | | | |
| Proposed Stormwater Discharge Strategy - surface water, groundwater, combination? | | | | |
| In groundwater infiltration with a WHPA, is pre-treatment required? | | | | |
| Are there Hazardous Substances currently or proposed to be stored on the property? | | | | |
| If yes, review Performance Standards for requirements. | | | | |
| Are there any existing out-of service wells, abandoned wells, or cisterns on the property? | | | | |
| Does the property have any known or suspected soil and/or groundwater contamination? | | | | |
| Is the property on any State or Federal lists associated with contamination? | | | | |
| Is the property currently or being proposed to be a Brownfield? | | | | |
| Is the property currently or being proposed to be an NFP site? | | | | |
| | | | | |
| If stormwater infiltration is being proposed on a site with known soil and/or groundwater contamination, | | | | |
| EGLE RRD Staff (Erica Bays for Part 201 at 269-350-0080 or BaysE@michigan.gov, or Nate Whitmyer for Part | | | | |
| 213 at 269-615-4060 or WhitmyerN@michigan.gov) must be contacted to discuss and to obtain approval. | | | | |
| Does the property have any underground or above-ground storage tanks? | | | | |
| Distribute Required Chemical Storage Inventory Information | | | | |
| Distribute Required Chemical Storage inventory information | | | | |
| | Indicate Completion (✓) | Indicate Review/Compliance (√) | | |
| | indicate completion (*) | indicate Neview/Compliance (*) | | |
| Stormwater | Site Size: | | | |
| | Category | Acres/ft ² | Comments | |
| Size of Development/Re-Development? | category | Acres/IC | <u>comments</u> | |
| | | | | |
| Small Site ≤ 1/2 acre (21,780 ft²) | | | | |
| Medium Site $\geq 1/2$ (21,780 ft ²) acre to 1 acre (43,560 ft ²) | | | | |
| | | | | |
| Large Site ≥ 1 acre (43,560 ft ²) | | | | |
| | | | | |
| | | | | |
| Large Site ≥ 1 acre (43,560 ft ²) | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) Uniform Stormwater Standard 2: Channel Protection Volume Worksheet | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) Uniform Stormwater Standard 2: Channel Protection Volume Worksheet Requirement for Stormwater Operations and Maintenance Agreement | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) Uniform Stormwater Standard 2: Channel Protection Volume Worksheet | Indicate Completion (✓) | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) Uniform Stormwater Standard 2: Channel Protection Volume Worksheet Requirement for Stormwater Operations and Maintenance Agreement Does the proposed project result in ≥ 20 new parking spaces and/or exceed 6,000 ft² area? | | Indicate Review/Compliance (✓) | | |
| Large Site ≥ 1 acre (43,560 ft²) See Performance Standards, Section 5.2, Table 3 for applicable Standards If project is a Medium or Large Size, applicant is required to complete: Uniform Stormwater Standard 1: Water Quality Treatment Volume Worksheet Manufactured Treatment Device Worksheet, if device is proposed to be used as pre-treatment strategy. (All Stormwater Manufactured Treatment Devices must be NJCAT verified and NJDEP Certified) Uniform Stormwater Standard 2: Channel Protection Volume Worksheet Requirement for Stormwater Operations and Maintenance Agreement | | Indicate Review/Compliance (✓) | | |