

City of Westwood
Stormwater Management Plan



Federal Permit No. KSR041038

Submitted in Compliance with Kansas Permit No. M-MO36-SU01

Date: January 3, 2015

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Attachments

Attachment 1 – TMDL Monitoring Locations

1.1 INTRODUCTION

This document is a Stormwater Management Plan (SMP, or the “Plan”) created to help reduce the discharge of pollutants in stormwater runoff within regulated areas of Westwood, Kansas. It outlines stormwater program activities, monitoring requirements, reporting requirements, and responsible parties for implementing this work.

This plan was prepared in compliance with Kansas Permit Number: M-MO36-SU01

Effective Date: February 1, 2014

Expiration Date: January 31, 2019

Section 1.2 summarizes the basic requirements of the stormwater permitting program for the benefit of users of this document. Subsequent sections provide the details of the SMP itself.

1.2 OVERVIEW OF STORMWATER PERMIT REQUIREMENTS FOR MS4s

The Federal Water Pollution Control Act (also referred to as the Clean Water Act) requires permits of both municipal and industrial stormwater dischargers, developed under a program called the National Pollutant Discharge Elimination System (NPDES). Permits for stormwater discharges from municipal urbanized areas are regulated under the MS4 permitting program. The term MS4 is short for Municipal Separate Storm Sewer Systems. (These are urbanized areas that have stormwater drainage systems that are separate from sanitary sewer systems.)

The Kansas Department of Health and Environment (KDHE) has developed two general MS4 permits for small municipalities with separate storm sewer systems. One was written for entities receiving an MS4 permit for the first time and another written for entities receiving a re-issued permit.

The general permits establish standardized requirements for entities across the state engaged in similar activities and discharging stormwater of similar quality. Permits issued to regulated cities or counties may include added conditions in addition to the standardized requirements in the general permits. The following description of the MS4 permit program was compiled from KDHE fact sheets:

The small MS4 general permit program addresses MS4s that generally serve populations less than 100,000 in urbanized areas, plus those MS4s located outside of urbanized areas that have or may have the potential to negatively impact surface water quality as a result of their discharges.

A general permit requires the permittee to develop, implement, and enforce a Stormwater Management Plan (SMP) designed to reduce the discharge of pollutants from the MS4 to the maximum extent practical, to protect water quality, and to satisfy water quality requirements of the Clean Water Act and Kansas law.

The SMP must include six minimum stormwater control measures that are required of all plans. It is also required to address implementation of Best Management Practices (BMPs) for reducing pollutants in stormwater discharges from the municipality. Special emphasis is placed on drainage basins and stormwater pollutants that discharge to designated Total Maximum Daily Load (TMDL) streams and lakes within or immediately downstream of the municipality.

The SMP document must address the BMPs to be implemented by the permittee, provide measurable goals for the BMPs, designate the parties responsible for implementing the control

measures, provide appropriate maps and conduct stormwater/receiving stream sampling and testing based upon the TMDL impairments.

“Impaired Waters” are streams or lakes that do not attain or maintain minimum water quality standards. They may result from individual or multiple pollutants. As noted above, TMDL is an acronym for Total Maximum Daily Load, which is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. Impaired streams and lakes are also commonly referred to as TMDL water bodies.

TMDL water bodies and pollutants of concern are identified in permits issued for individual municipalities if impaired waters exist within or immediately downstream of that jurisdiction. Monitoring requirements and water quality protection initiatives may then focus especially on those pollutants.

Note: The City of Westwood does not have any specific TMDL requirements.

SECTION TWO

Parties Responsible For Compliance With This Plan

2.1 Parties Responsible for Compliance with this Plan

Overall responsibility for coordination of activities outlined in this Plan, and for reporting will be by the Public Works Director.

This section describes the six minimum water quality protection control measures that are required by all MS4 permits. They include the following:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

For each of these control measures the following is provided in this section:

- A summary description of the control measure
 - The benefits of the control measure
 - A table listing Best Management Practices (BMPs), Measurable goals for the BMPs, and Responsible parties
 - Program assessment activities for evaluating the success of the control measure
-

3.1 CONTROL MEASURE 1 - PUBLIC EDUCATION AND OUTREACH

Description

This minimum control consists of implementing a public education program to inform individuals, businesses, and organizations about the impacts of stormwater discharges on surface water quality and how they can help reduce pollutants in stormwater runoff. This may include distribution of educational materials to the community and/or conducting outreach activities.

Benefit

An informed public increases awareness of water quality issues in both residents and businesses, creates opportunities for the public to take direct action to improve the health and sustainability of their community, and builds support for program goals making initiatives more effective.

BMPs, Goals, and Staff

| Public Education and Outreach | | | | |
|---|---|---|---|----------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 1.1 Develop stormwater related education and outreach materials | Items may include articles or advertising in local newspapers, TV commercials, print/electronic newsletters, flyers, brochures, envelope stuffers, etc. | Estimated number of impressions/readership based on coverage /distribution. | JCSMP (Water Quality Specialist)* City of Westwood Public Works Director | Annual |
| 1.2 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | City of Westwood Public Works Director | Annual |

* The City of Westwood is a member of the Johnson County Stormwater Management Council (SMAC) and as such partners with the Johnson County Stormwater Management Program (JCSMP) on various aspects of the six minimum controls measures. Many of the city's education and outreach efforts are accomplished through this partnership.

Program Assessment

The overall success of the Public Education and Outreach Program will be measured through the successful implementation of the components of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. Success will also be measured specifically by the following:

- Number of outreach materials or activities distributed by the city and partner organizations.
- Number of water quality presentations conducted by partner organizations
- Survey results (conducted by partner organizations)

3.2 CONTROL MEASURE 2 - PUBLIC INVOLVEMENT AND PARTICIPATION

Description

This minimum control consists of creating opportunities for individuals and organizations to provide public comment and recommendations regarding BMPs and measurable goals, and participate in the development and implementation of BMPs to reduce the contamination of stormwater. This program must also comply with state and local public notice requirements.

Benefit

The goal of the stormwater management plan is to improve water quality in local lakes and rivers, which provides benefits to the entire community. As such, the community deserves to have an opportunity to voice opinions on the content of the plan. Further, input into decisions builds support for and ownership in outcomes.

BMPs, Goals, and Staff

| Public Involvement and Participation | | | | |
|--|---|--|--|----------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 2.1 Promote Community Involvement | Assist with development, funding and/or promotion of watershed based clean-ups, rain barrel classes, storm drain stenciling programs, water quality expo's or other events focused on stormwater quality or watershed stewardship | List of watershed based clean-ups/events and other stormwater related activities; summary of accomplishments; number of attendees. | JCSMP (Water Quality Specialist) City of Westwood Public Works Director | Annual |
| 2.2 Mechanism for Citizen Participation | Provide mechanism on website for citizen comments on stormwater management program | Mechanism to provide comments on-line; log of comments and track responses and actions | City of Westwood Public Works Director | Annual |
| 2.3 Comply with Public Notice Provisions | Advertise annual revisions for Stormwater Management Plan on city website to provide for the opportunity for public input and provide feedback to public comments | Revisions advertised, comments addressed | City of Westwood Public Works Director | Annual |
| 2.4 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | City of Westwood Public Works Director | Annual |

* The City of Westwood is a member of the Johnson County Stormwater Management Council (SMAC) and as such partners with the Johnson County Stormwater Management Program (JCSMP) on various aspects of the six minimum controls measures. Many of the city's public involvement and participation efforts are accomplished through this partnership.

Program Assessment

Similar to Public Education and Outreach, the overall success of the Public Involvement and Participation Program will be measured through the successful implementation of the components of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. Success will also be measured specifically by the following:

- Number of community involvement events and participants
- Number of cost-share projects and participants

3.3 CONTROL MEASURE 3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

Description

This minimum control consists of developing, implementing, and enforcing a program to detect and eliminate illicit wastewater discharges or other non-stormwater discharges into the storm sewer system. KDHE requires this program to include, at a minimum:

- Developing a storm sewer system map of the permitted MS4 showing the location of all outfalls, either pipes or open channel drainage, and showing the names and locations of all streams or lakes that receive discharges from those outfalls.
- Enacting and enforcing an ordinance or resolutions to prohibit non-stormwater discharges into the storm sewer system.
- Informing public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
- Developing and implementing a plan to detect and address prohibited non-stormwater discharges.

Benefit

Direct discharges of waste streams can present significant localized impacts to both public health and the environment. Developing legal, technical, and educational means to eliminate illicit discharges provides direct benefits to water quality, the environment, and public health.

BMPs, Goals, and Staff

| Illicit Discharge Detection and Elimination | | | | |
|---|--|--|--|--|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 3.1 Pollution Prevention Ordinance | Review and update the Stormwater Pollution Prevention Ordinance and enforcement procedures as needed | Ordinance reviewed and updated (if required) | City of Westwood Public Works Director | Chapter 15 of the Westwood Municipal Code is in-place. Update as-needed. |
| 3.2 Pollution Prevention Hotline | Maintain phone hotline and online mechanism for reporting illicit discharges; conduct investigations and/or forward to appropriate cities/agencies | Number of calls/reports received, number of investigations completed, results/compliance actions taken. | JCSMP | On-line report mechanism is in-place. Respond as-needed. |
| 3.3 Implement a plan to detect and address illicit discharges | Continue outfall monitoring during dry weather to determine if any discharge is observed. | Investigate any discharge present. Determine if substance found is a pollutant. Determine location of any illicit discharges and take appropriate actions per Ordinance. | City of Westwood Public Works | Annual inspection during July and August of known outfalls. |

SECTION THREE

Six Minimum Control Measures

| Illicit Discharge Detection and Elimination | | | | |
|--|--|---|--|----------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 3.4 Conduct training for detection of illicit discharges | Train Westwood Public Works staff in how to detect illicit discharges and the response per the plan. | Successful elimination of any illicit discharges detected during our annual inspection. | Director of Public Works | Annual |
| 3.5 Storm sewer network and outfall mapping | Annual review of the current storm sewer mapping and outfall mapping. | Mapping revisions as needed as determined by the annual review. | Director of Public Works | Annual |
| 3.5 Household Hazardous Waste (HHW) Program | Continue to support the Johnson County HHW Program. | Number of participants and summary of materials received | JCSMP | Annual |
| 3.6 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | JCSMP Director of Public Works, City of Westwood | Annual |

Program Assessment

The overall success of the Illicit Discharge Detection and Elimination Program will be measured through the successful implementation and enforcement of the Surface Water Management Ordinance. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. Success will also be measured by the following:

- Number of public complaints addressed or problems discovered by City staff
- Number of inspections conducted
- Number of notices of violation or penalties issued

3.4 CONTROL MEASURE 4 - CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Description

This minimum control includes developing, implementing, and enforcing a program to reduce pollutants in any stormwater runoff to the MS4 for construction sites disturbing one acre or more, including areas that are less than one acre but are part of a larger common plan for development that disturbs one or more acre. KDHE requires this program to include:

- Where permittees have the authority to do so, ordinances or resolutions shall be enacted to require erosion and sediment controls, as well as sanctions to ensure compliance.
- Requirements for construction site owners or operators to implement erosion and sediment control BMPs.
- Requirements for construction site owners or operators to control wastes at the construction site that are likely to cause adverse impacts to water quality.
- Procedures for site plan review which incorporate consideration of potential water quality impacts.
- Procedures for receipt and consideration of information submitted by the public.
- Procedures for site inspection and enforcement of control measures.

Benefit

If uncontrolled, land disturbance activities can generate significant loads of sediment which can impact both adjoining properties and downstream water bodies. Fortunately, effective controls are easy and cost-effective to implement.

BMPs, Goals, and Staff

| Construction Site Stormwater Runoff Control | | | | |
|---|---|---|--------------------------|--|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 4.1 Regulations and Standards | Review and update current Sediment and Erosion Control Regulations and Standards as needed. | Revise Sediment and Erosion Control Regulations if annual review reveals deficiencies. | Director of Public Works | Annual |
| 4.2 Site Plan Review | Require an Erosion and Sediment Control Plan for any land disturbance activity equal to one acre or more. | Review all erosion and sediment control plans for construction sites that disturb an acre or greater. | Director of Public Works | Each Building Permit application where construction disturbs an acre or greater. |
| | Require submittal of state NOI for Stormwater Construction Runoff. | Request copy of NOI and place in project file. | Director of Public Works | |
| | Review all plans associated with the project in preparation of issuance of a land disturbance permit. | Issuance of permits after review and any necessary changes are made. | Director of Public Works | |

SECTION THREE

Six Minimum Control Measures

| Construction Site Stormwater Runoff Control | | | | |
|---|---|---|--------------------------|--|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 4.3 Site Inspection and Enforcement | Track construction site inspections, complaints, violations, and enforcement measures | Compliance with the ordinance. | Director of Public Works | As permits are issued. |
| 4.4 Receipt of Public Information on Construction Site Compliance | Track information received from public | Summary of information received and actions taken. | Director of Public Works | Compile information for annual report. |
| 4.5 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | Director of Public Works | Annual |

Program Assessment

The overall success of the Construction Site Stormwater Runoff Control Program will be measured through the successful implementation and enforcement of the Erosion and Sedimentation Control Ordinance. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. Success will also be measured by the:

- Number of plans reviewed
- Number of inspections conducted
- Number of NOV's issued
- Number and amount of penalties issued

3.5 CONTROL MEASURE 5 - POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Description

This minimum control requires the development, implementation, and enforcement of a program to address post-construction stormwater runoff controls from both new development and redevelopment sites after development sites disturbing one acre or more, including projects that are less than one acre but are part of a larger common plan for development that disturbs one or more acre. KDHE requires the program to include:

- For permittees which have the authority, ordinances or resolutions to address post-construction runoff from new development and redevelopment projects to the extent allowable under state and local law.
- BMPs to prevent or minimize adverse water quality impacts.
- Strategies which include a combination of structural and/or non-structural BMPs appropriate for the municipality.
- Means to ensure adequate long-term operation and maintenance of BMPs.

Benefit

Conversion of native landscape to developed landscape increases both the volume of stormwater runoff and pollutant loads in stormwater. The consequences can include erosion, flooding, and pollution, impacting both downstream property owners and public infrastructure. Stormwater controls included in development sites can help reduce impacts and costs to both private property owners and the public.

BMPs, Goals, and Staff

| Post-Construction Stormwater Management in New Development and Redevelopment | | | | |
|--|---|---|--------------------------|-------------------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 5.1 Regulations and Standards | Review and update Post Construction Stormwater Management Ordinance #1409 adopted in 2007. | Review regulation and update as needed | Director of Public Works | Target date: 2017 |
| | Review and update Post Construction Stormwater Management design criteria adopted in 2007. | Review design criteria and update as needed. | Director of Public Works | Target date: 2017 |
| 5.2 Establish plan review procedures. | Review and update Post Construction Stormwater Management Plan Review Checklists. | Review and update annually. | Director of Public Works | Target date: 2017 |
| 5.3 Site plan review | Require a Stormwater Quality Management Plan (SWQMP) for any new development or re-development project that disturbs one acre or more of land and | Review all SWQMP's to determine compliance with design criteria and checklists. | Director of Public Works | As permitted. |

SECTION THREE

Six Minimum Control Measures

| Post-Construction Stormwater Management in New Development and Redevelopment | | | | |
|--|---|--|--------------------------|-------------------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| | Issue Post Construction BMP permits | Permit to be issued after development has reached 90% completion and tributary area to BMP has been permanently stabilized | Director of Public Works | As permitted. |
| | Require "as-built" inspections at the conclusion of a project to ensure that the BMP has been built as designed. | Develop a program to track design certifications | Director of Public Works | As permitted |
| 5.4 Develop inspection procedures for completed projects. | Require that the owner/operator of the facility inspect the BMP through maintenance agreements in perpetuity. | Develop a long-term maintenance program | Director of Public Works | As permitted. |
| | Require that the owner/operator provide documentation detailing inspection dates and maintenance performed one year after construction, and every three years thereafter. | Develop a long-term maintenance program | Director of Public Works | As permitted |
| | Establish inspection and maintenance program for public projects. | Implement inspection program on publicly owned BMPs. | Director of Public Works | Target date: 2018 |
| | Establish inspection and maintenance program for private projects. | Implement inspection program on publicly owned BMPs. | Director of Public Works | Target date: 2019 |
| | Establish enforcement actions that require the owner/operator to perform necessary inspections and maintenance. | Review and update enforcement procedures | City Attorney | Target date: 2019 |
| 5.5 Establish enforcement procedures | Include abatement provisions that allow the city to abate problem facilities if necessary. | Review and update abatement procedures | City Attorney | Target date: 2019 |
| | Maintain an inventory detailing the types and locations of planned and installed post-construction BMPs. | Develop and maintain a BMP tracking system | Director of Public Works | Target date: 2019 |
| 5.6 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | Director of Public Works | Annual |

Program Assessment

The overall success of the Post-Construction Stormwater Management Program will be measured through the successful implementation and enforcement of a Post-Construction Stormwater Management Ordinance. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. Success will also be measured by the following:

- Number of plans reviewed
- Ordinances updated and procedures enacted

3.6 CONTROL MEASURE 6 - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**Description**

This minimum control measure requires the development and implementation of an operation and maintenance and training program to reduce and prevent stormwater pollution from public facility operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbance, and stormwater system maintenance.

Benefit

Leading by example on public facilities and projects provides an opportunity to demonstrate and teach proper techniques to other landowners, and it is available on a routine and ongoing basis.

BMPs, Goals, and Staff

| Pollution Prevention/Good Housekeeping for Municipal Operations | | | | |
|---|--|---|--------------------------|----------|
| BMP | BMP Description | Measurable Goal | Lead Staff | Schedule |
| 6.1 Implement an operation and maintenance program to reduce pollutant runoff from municipal operations to the municipal separate storm sewer system. | Perform stormwater management audits of community-owned facilities or community operations that potentially impact surface water through the MS4; complete pollution prevention plan for these facilities. | Continue audits; review SWPPP's for community owned facilities. | Director of Public Works | Annual |
| 6.2 Conduct staff training. | Implement employee training program for employees; document training. | Training performed and documented. | Director of Public Works | Annual |
| 6.3 Annual Program Review | Assess Program and revise as required | As needed, note revisions in annual report and update SMP | Director of Public Works | Annual |

Program Assessment

The overall success of the Pollution Prevention/Good Housekeeping Program will be measured through the successful implementation of facility SWPPPs, employee training and facility inspections conducted as part of the program. Program assessment will be reported with each annual NPDES report discussing the activities completed in this section for the previous program year. In addition, success will also be measured by:

- The number of inspections conducted
- The number of problems discovered and resolved
- Training classes conducted

TMDL Pollutants

TMDL regulated pollutants and impaired streams identified in the city's 2014 permit are listed below:

| Impaired Stream | TMDL Regulated Pollutant | | |
|------------------------|---------------------------------|------------------|-----------------|
| | Bacteria | Nutrients | Sediment |
| NA | | | |

Best Management Practices (BMPs)

All six of the minimum control measures are designed to reduce pollutants in stormwater runoff. Those BMPs especially targeting bacteria, nutrients, and sediment, the most common TMDL pollutants in urbanized Johnson County, include the following:

Bacteria

- Public Education and Outreach: The Pet Waste Pickup Campaign, supported through funding of the Mid-America Regional Council (MARC) Water Quality Education Committee, directly addresses this pollutant
- Illicit Discharge Detection and Elimination Program
- Post-Construction Runoff Controls requiring the implementation of post-construction BMPs

Nutrients

- Public Education and Outreach: Programs conducted by Johnson County Stormwater Management Program on behalf of the cities include the Water Quality Education Grant Program; Homeowner BMP Cost Share Program; K-State Extension Water Quality Partnership
- Post-Construction Runoff Controls requiring the implementation of post-construction BMPs

Sediment

- Erosion & Sediment Control at Construction Sites: Permitting and inspection program
- Post-Construction Runoff Controls requiring the implementation of post-construction BMPs

Pollutant Reduction Goals

Success in achieving reductions in bacteria, nutrients, and sediment will be assessed by directly monitoring in-stream concentrations and evaluating pollutant concentration trends across the permit period. The monitoring program is being conducted by the Johnson County Stormwater Management Program on behalf of the cities in the county.

Mapping

N/A

An in-stream monitoring program targeting impaired streams and TMDL pollutants throughout Johnson County is being undertaken by the Johnson County Stormwater Management Program in conjunction with the USGS Cooperative Water Program. This program is being conducted on behalf of the cities in the county. Annual results of the monitoring program will be provided to the cities as well as the KDHE.

The monitoring program will include:

1. A network of 25 sites where discrete samples will be collected with passive samplers. Sample locations are located where streams generally enter and leave jurisdictional boundaries in impaired watersheds.
2. Targeted analytes include nutrients, suspended sediment, and *Escherichia coli* bacteria.
3. Four samples will be collected at each site annually (environmental conditions permitting, with a minimum of two samples collected in calendar year 2014).
4. Samples will be collected from storm events of at least 0.5 inches in 24-hours and samples will be collected during the rising limb of the storm events.
5. USGS is also including additional sampling techniques and added parameters at selected locations to help assess the effectiveness of the overall monitoring program.
6. Data will be compiled and reviewed on a routine basis and an annual summary of results provided.

A map of TMDL monitoring locations is included as Attachment 1.

Permit Compliance Schedule

Part IV of the 2014 permit includes the following compliance schedule requirements:

- **Year 2014:** Complete inventory and maps of outfalls, streams, and lakes in targeted areas; drainage basins for structural and non-structural BMPs; Select and initiate or continue effective plans for source control programs targeted to TMDL pollutants.
- **July 1, 2014:** Implement new source control programs and the initial stormwater monitoring program. (The plan for the monitoring program was developed prior to July 1, 2014. With concurrence of KDHE, sampling will begin in Fall 2014.)
- **February 28, 2015:** Submit a copy of this updated SMP to KDHE.
- **Year 2015:** Continue source control programs and monitoring program.
- **Year 2016:** Continue source control programs and monitoring programs.
- **July 1, 2016:** Select, design, and initiate installation of appropriate structural BMPs.
- **Year 2017:** Continue source control programs and monitoring program.
- **Year 2018:** Continue source control programs and monitoring program.
- **February 28, 2019:** Provide a final report on the effectiveness of source controls and structural BMPs to achieve the measurable goals and summarize water quality data from selected sites.

Annual Reporting

A calendar year annual report will be submitted to KDHE by February 28 of each year. The report will cover activities conducted during the prior calendar year and will include the following:

- Summary of compliance activities associated with the permit
- A review of the appropriateness of BMPs and progress towards achieving water quality goals
- Results of information collected and analyzed, if any, including monitoring data
- Summary and status of stormwater activities conducted during the previous year
- Summary of stormwater activities scheduled to take place during next reporting cycle (including schedule)
- Map showing changes in jurisdictional permit area, if appropriate
- Description of significant changes in any BMPs, including the six minimum control measures
- Copies of updated ordinances or resolutions associated with this SMP or the six minimum control measures
- Updated list of other parties which will be responsible for implementing program areas of this SMP, as required

SECTION SEVEN

Modifications to BMPs Or This Plan

This SMP will be evaluated annually and modifications to the Plan, if any, will be submitted with the annual report.



Minor modifications to BMPs listed in this plan, if needed to meet program objectives, will be made within 60 days determination by the permittee or written notification from KDHE.

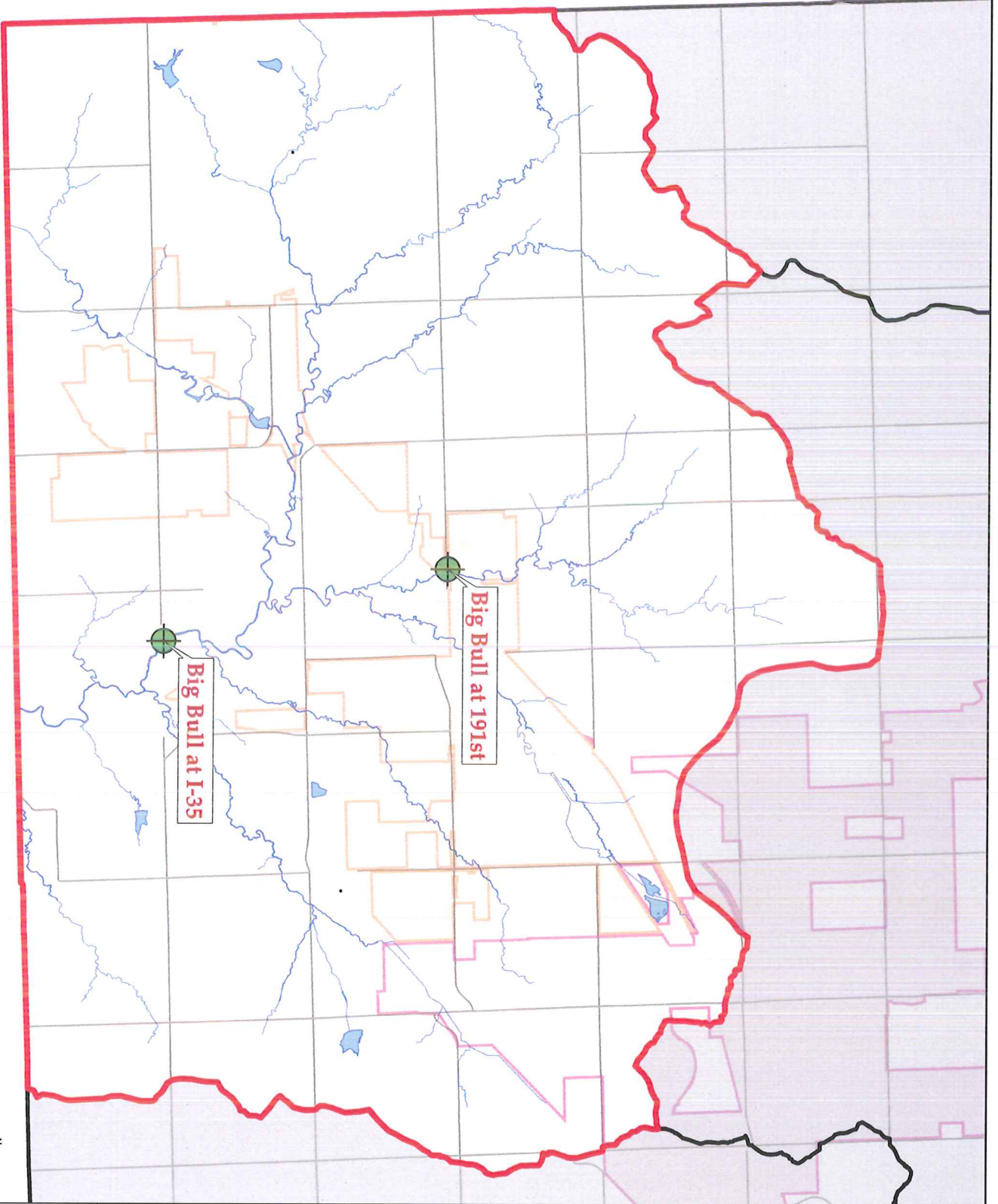
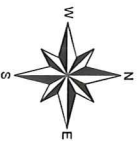
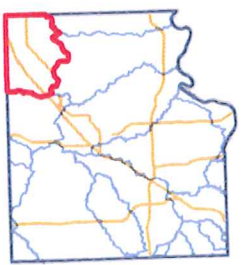
Major modifications to BMPs listed in this plan, if needed to meet program objectives, will be proposed in a written plan to KDHE, within 60 days determination by the permittee or written notification from KDHE.

Attachment 1: TMDL Monitoring Locations.

TMDL Storm Event Monitoring Locations *Big Bull Creek*



Legend

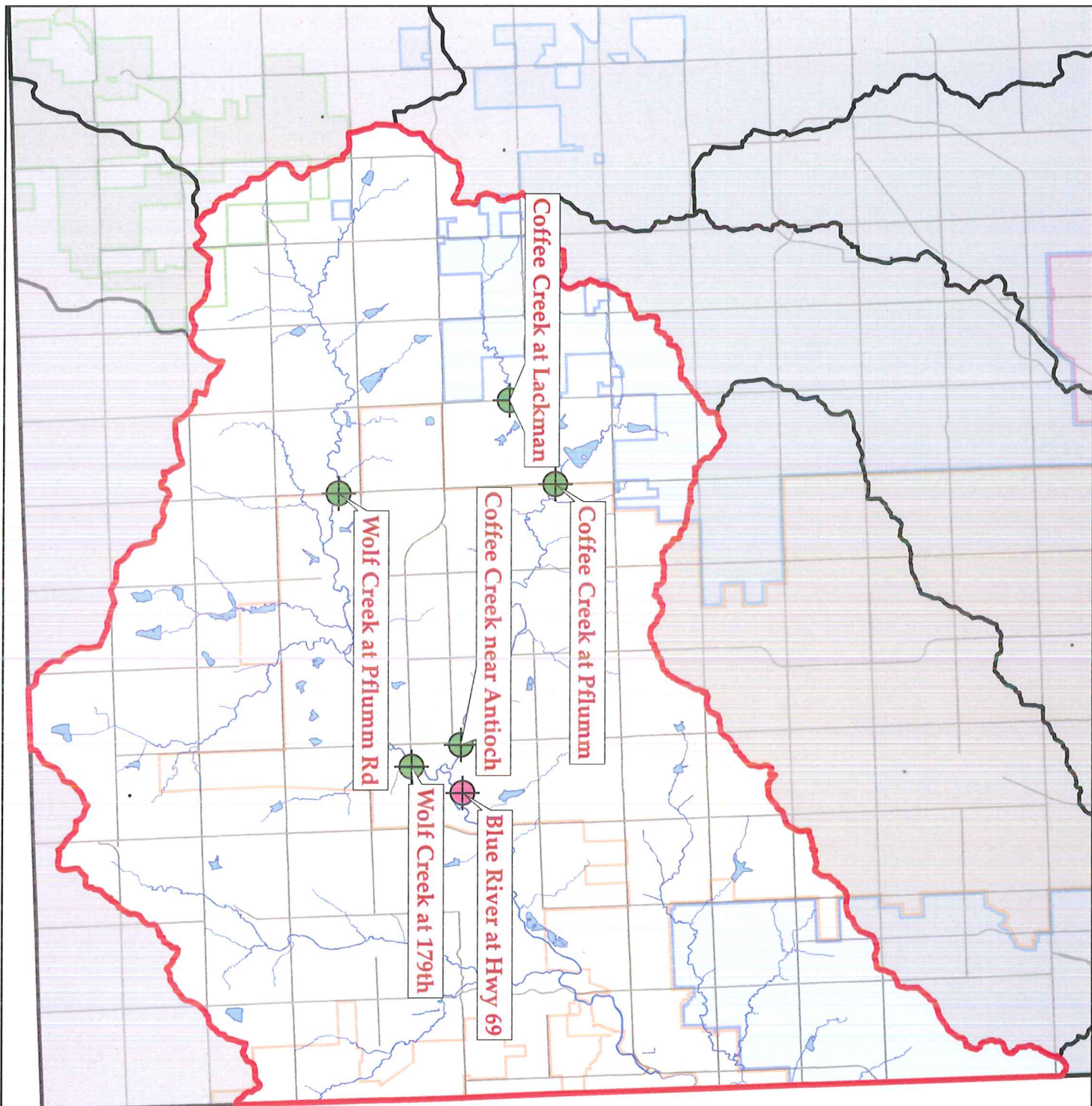
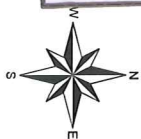
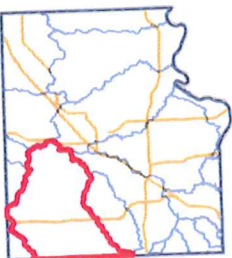
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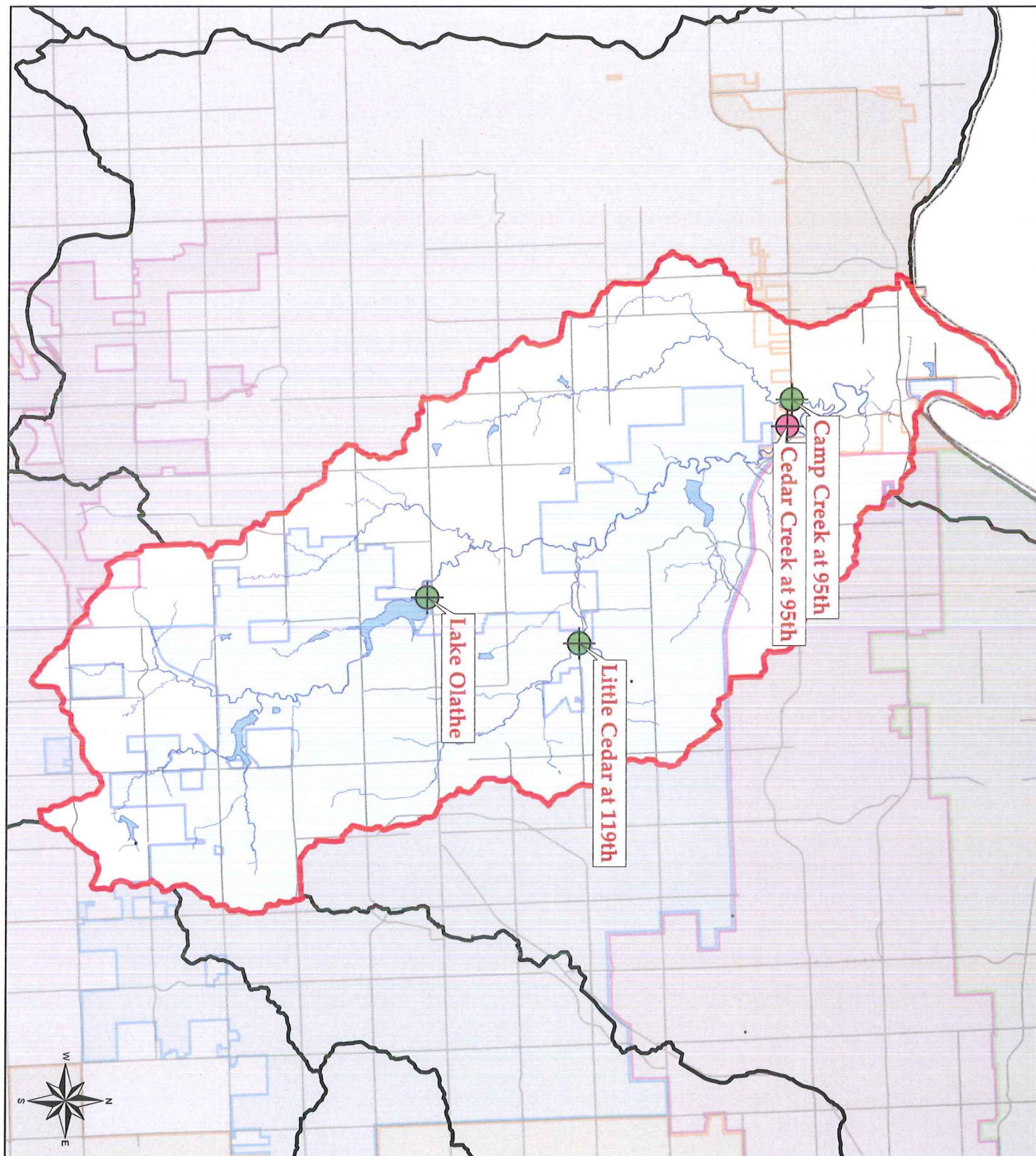




TMDL Storm Event Monitoring Locations *Blue River*

Legend

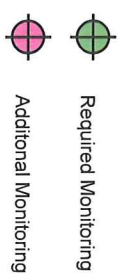
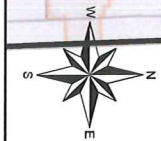
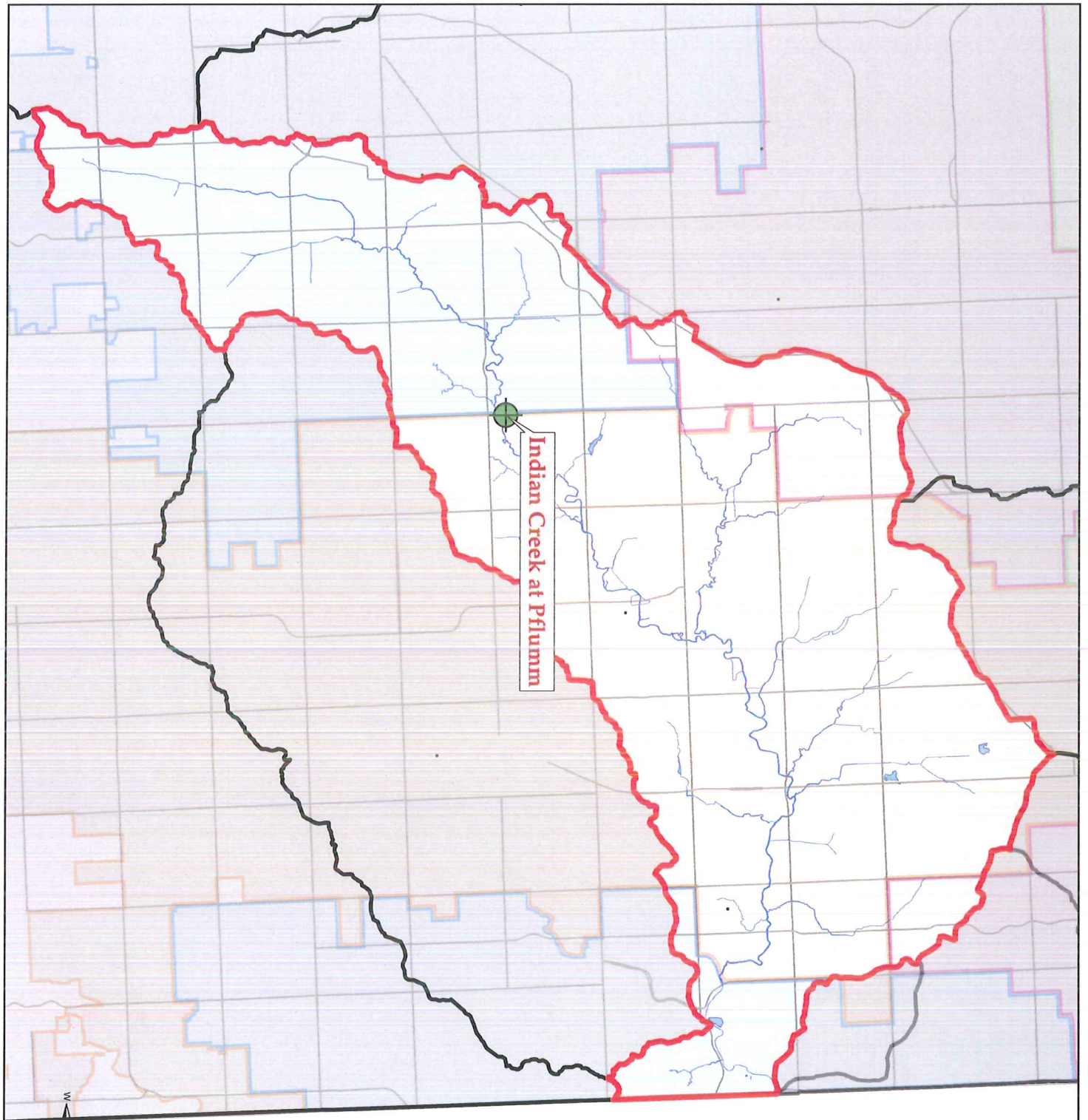
-  Required Monitoring
-  Additional Monitoring





- Legend**
-  Required Monitoring
 -  Additional Monitoring

TMDL Storm Event Monitoring Locations *Cedar Creek*

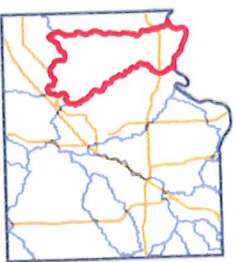
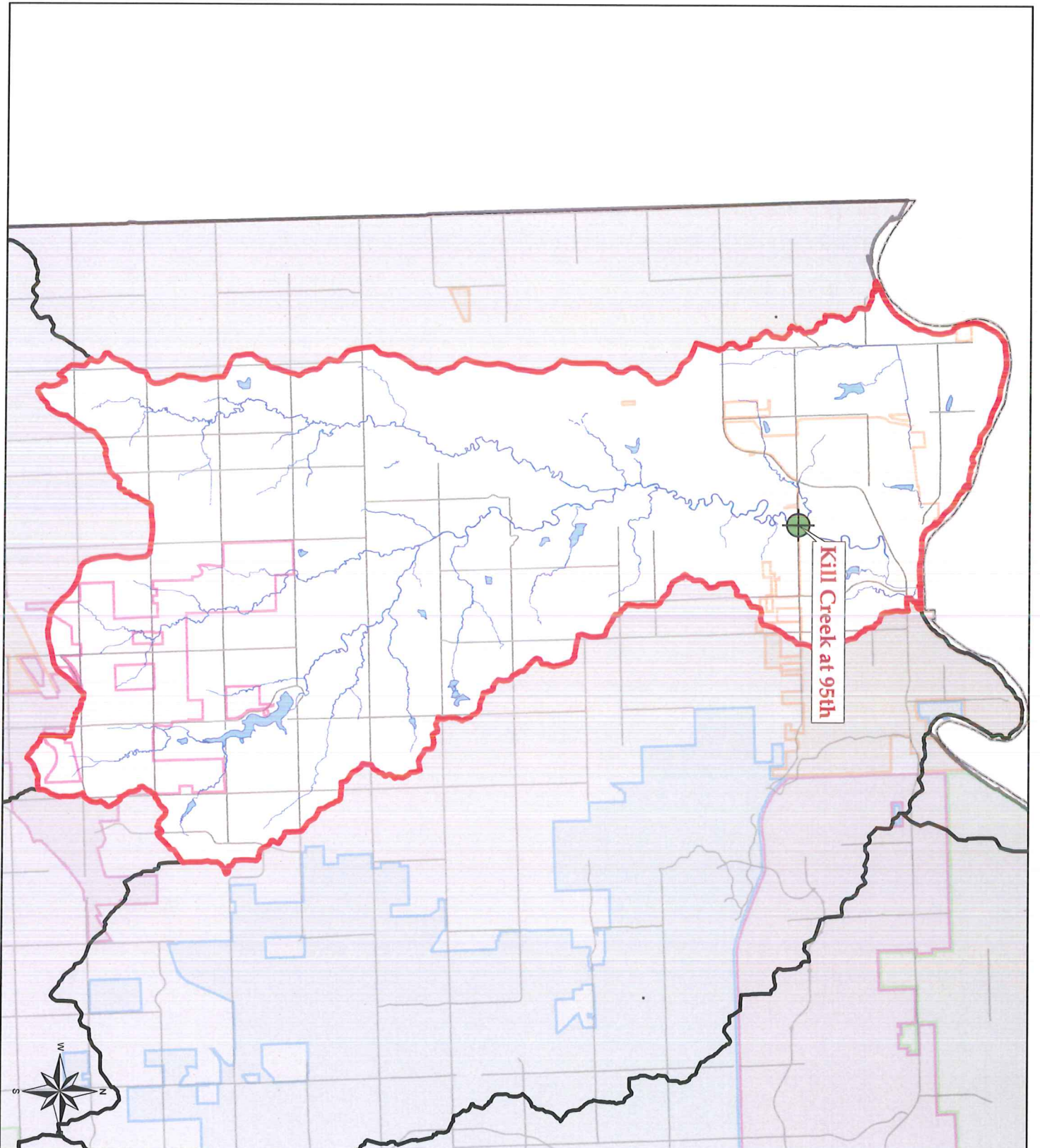


Legend

Required Monitoring

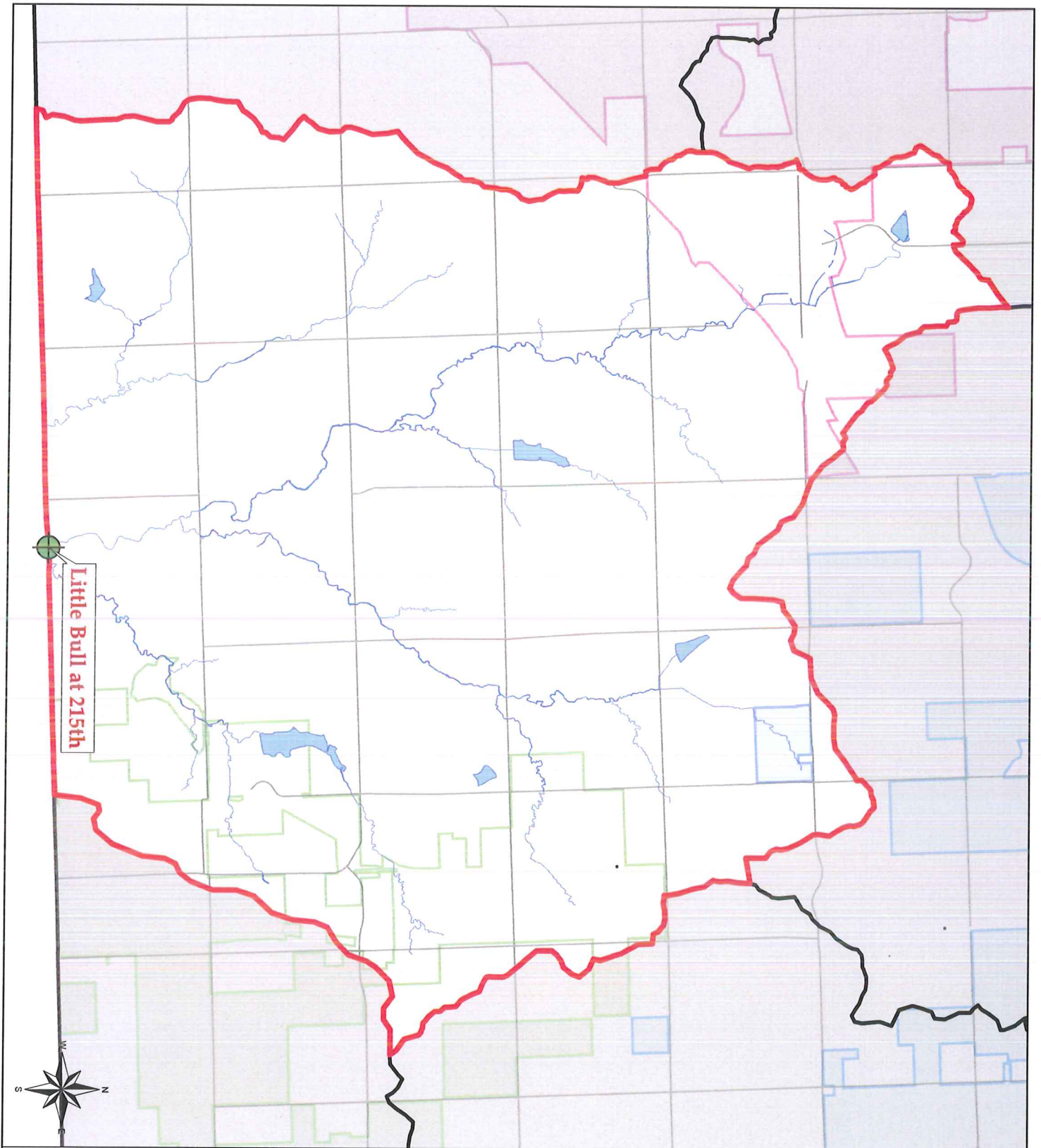
Additional Monitoring

TMDL Storm Event Monitoring Locations *Indian Creek*

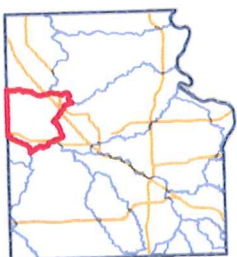




- Legend**
-  Required Monitoring
 -  Additional Monitoring

TMDL Storm Event
Monitoring Locations
Kill Creek



Little Bull at 215th



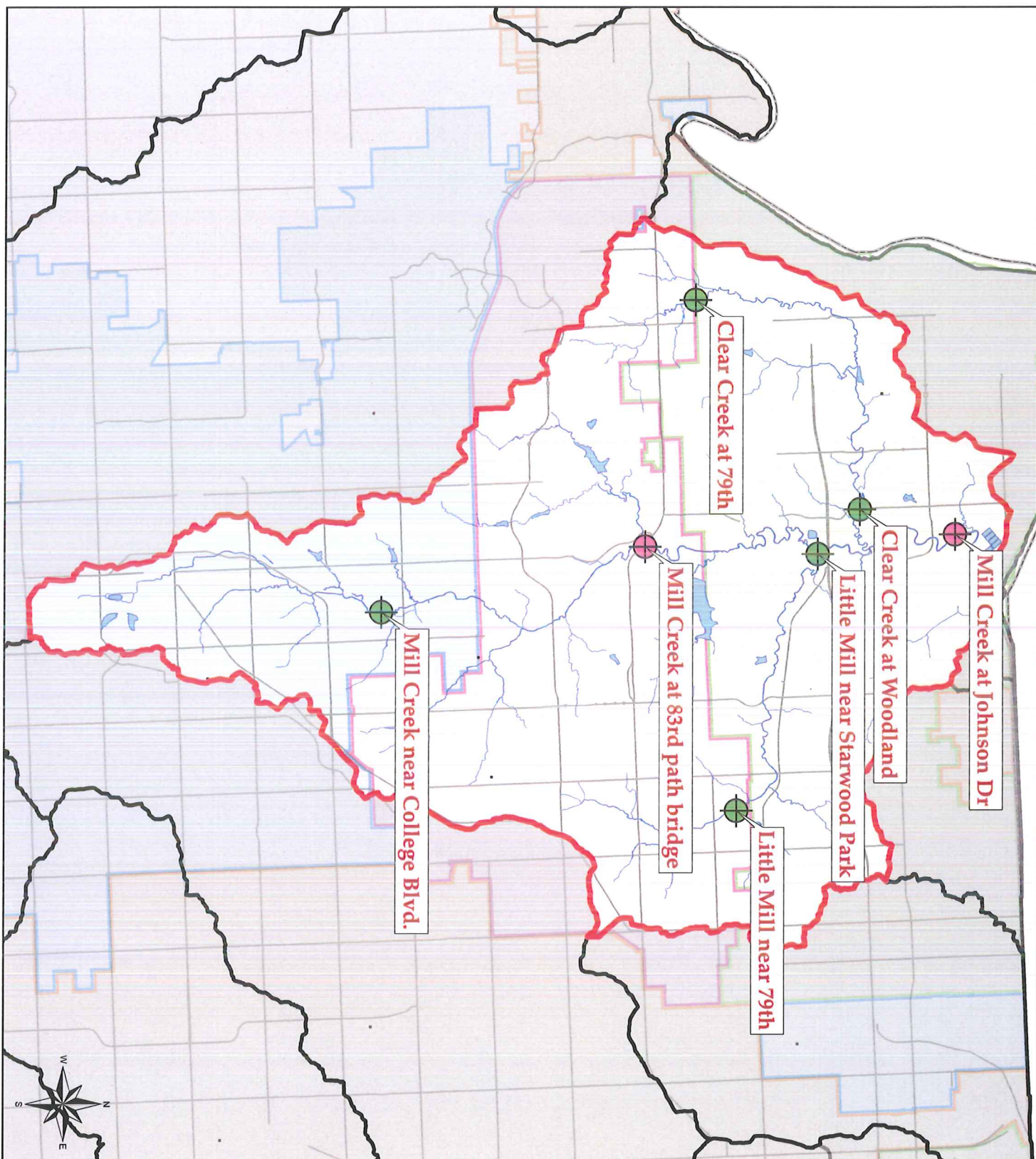
- Legend**
-  Required Monitoring
 -  Additional Monitoring

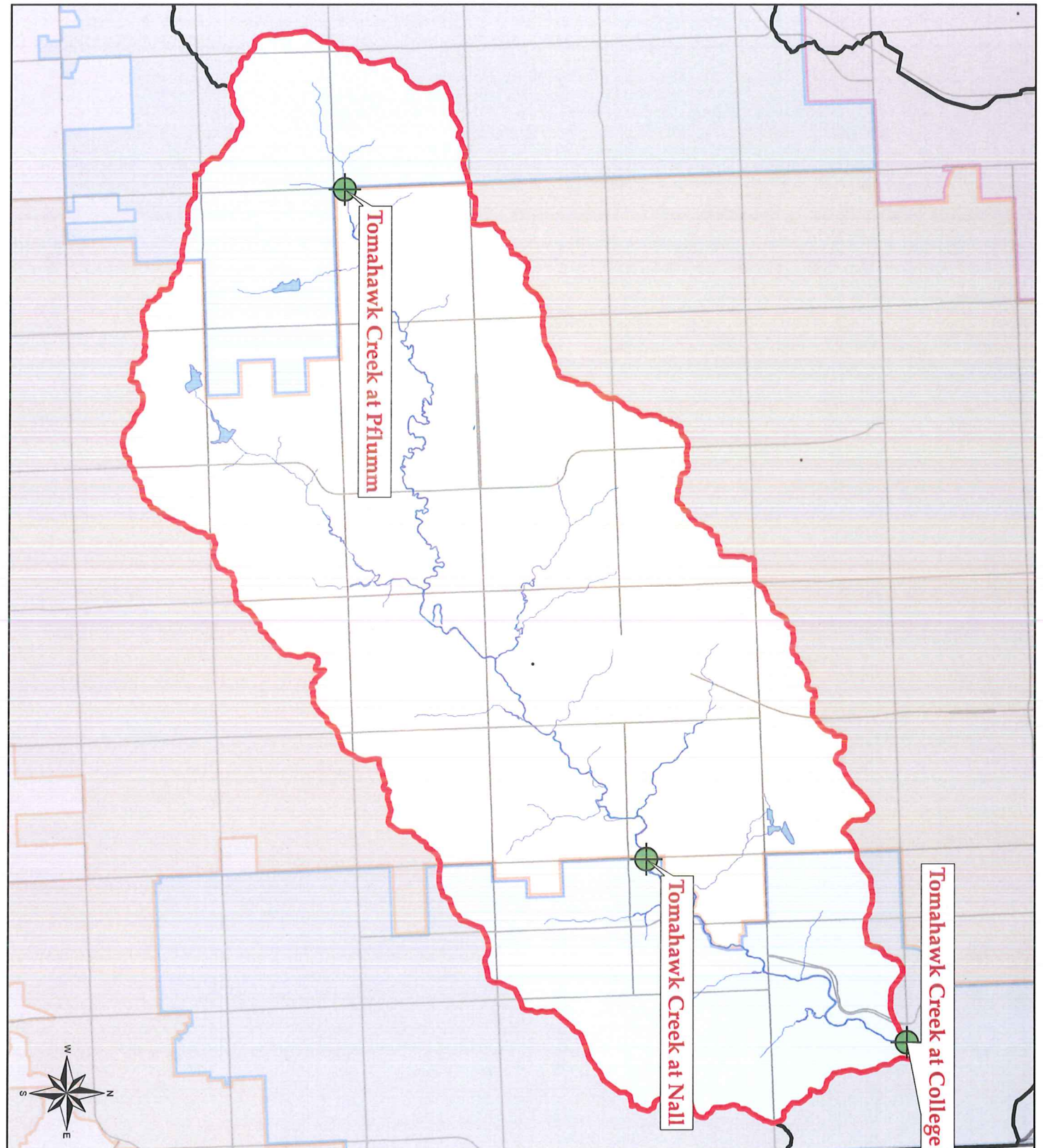
TMDL Storm Event
Monitoring Locations
Little Bull Creek

TMDL Storm Event Monitoring Locations *Mill Creek*

Legend

-  Required Monitoring
-  Additional Monitoring







Tomahawk Creek at College

Tomahawk Creek at Nail

Tomahawk Creek at Pflumm




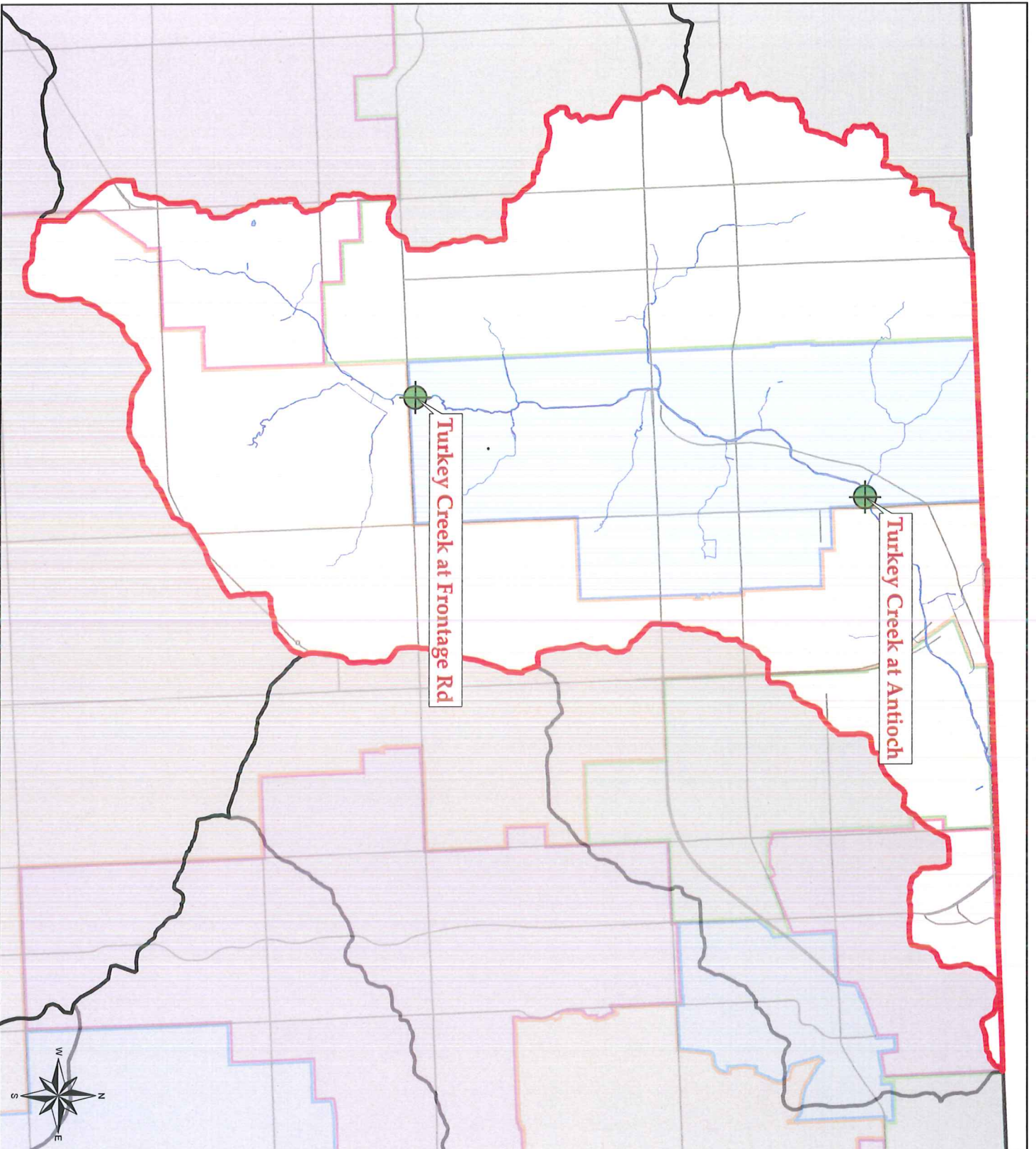
- Legend**
-  Required Monitoring
 -  Additional Monitoring

TMDL Storm Event Monitoring Locations *Tomahawk Creek*

TMDL Storm Event Monitoring Locations *Turkey Creek*

Legend

-  Required Monitoring
-  Additional Monitoring





Public Works Department

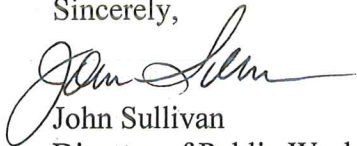
February 27, 2015

Kansas Department of Health & Environment
Municipal Programs Section
1000 SW Jackson St, Suite 420
Topeka, KS 66612-1367

Kansas Permit No. M-MO36-SU01
Federal Permit No. KSR041038

Please find on the enclosed CD the City of Westwood Stormwater Management Plan for 2014-2019 as well as our Stormwater Annual Report for 2014.

Sincerely,



John Sullivan
Director of Public Works

KANSAS STORMWATER 2014 ANNUAL REPORT FORM FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

Check box if
this is a new name,
address, phone, etc.

Permittee Information and Reporting Period

| | | |
|--------------------------|------------------------------|-------------------------------------|
| Permittee (Agency Name): | City of Westwood | <input type="checkbox"/> |
| Mailing Address: | 4700 Rainbow Boulevard | <input type="checkbox"/> |
| City: | Westwood | <input type="checkbox"/> |
| State: | Kansas | <input type="checkbox"/> |
| Zip Code: | 66205 | <input type="checkbox"/> |
| Contact person: | John Sullivan | <input type="checkbox"/> |
| Contact E-Mail address: | john.sullivan@westwoodks.org | <input checked="" type="checkbox"/> |
| Contact Phone Number: | 913-432-1550 | <input type="checkbox"/> |
| Kansas Permit Number: | M-MO36-Su01 | (Example) M-MC21-SU01 |

Reporting period covers activities from January 1, 2014 through December 31, 2014.

This annual report must be submitted to the Kansas Department of Health and Environment (KDHE) by February 28, 2015. This annual report must be submitted as a word or PDF file to KDHE on a standard compact disk (CD). A paper copy of the report may, in addition to the CD, be submitted if the permittee so desires but is not required.

The permit establishes several reporting requirements, please review "PART V REPORTING" within the permit and ensure the various items which must be reported with the annual report are included with the report.

B. Executive Summary

Append an executive summary to this report which briefly covers the major aspects of the MS4 stormwater management program enacted during the year. In completing the executive summary, the preparer should address the following questions:

1. Were there any aspects of the program that appeared especially effective at reducing pollutants in your stormwater discharge?
2. Were there any aspects of the program that provided unsatisfactory results?
3. What was the most successful part of the program?
4. What was the most challenging aspect of the program?

The executive summary does not need to be extensive and detailed. It is anticipated the executive summaries will range from one half of a page to two pages in length depending on the scope of the program.

C. Stormwater Management Program

| | | Place a check mark in the appropriate box. | | |
|----|--|--|--------------------------|----------------|
| | | Yes | No | Not Applicable |
| 1. | Has the Stormwater Management Program (SMP) been developed? | X | <input type="checkbox"/> | |
| 2. | Has the SMP been modified during this reporting period? | <input type="checkbox"/> | X | |
| 3. | If the answer to question 2 above was "yes", has the modified SMP been submitted to KDHE for review? | <input type="checkbox"/> | <input type="checkbox"/> | X |

If the answer to item 3 is "No" a copy of the modified SMP must be submitted with this annual report. If it is anticipated a measurable goal cannot be met in the next year the SMP should be modified and submitted to KDHE for review. The modifications may include different BMPs and/or revised goals to avoid being in a position of non-compliance

D. Total Maximum Daily Load (TMDL) Best Management Practices

| | | Place a check mark in the appropriate box. | | |
|----|---|--|-------------------------------------|--------------------------|
| | | Yes | No | Not Applicable |
| 1. | Were any best management practices (BMPs) intended to attenuate the discharge of TMDL regulated pollutants implemented? See your permit to determine if TMDL regulated pollutants are listed for the receiving stream affected by your stormwater system. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. | List all of the BMPs intended to attenuate the discharge of TMDL regulated pollutants as identified in the SMP and provide the requested information on the following table on the following pages | | | |

D. Total Maximum Daily Load (TMDL) Best Management Practices (Table)

| BMP ID NUMBER | Brief BMP Description | Regulated TMDL Parameter | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|------------------|-----------------------|--------------------------------|--------------------|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

E. Stormwater Management Program Requirements (Six Minimum Control Measures)**1. Public Education and Outreach (Table)**

List all of the public education and outreach BMPs as identified in the SMP and provide the requested information in the following table.

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|--|---|--|
| 1 | <p>Public Education/Outreach: The Johnson County Stormwater Management Program (JCSMP) contributed funds on behalf of all MS4 permitted cities in Johnson County to the Mid-America Regional Council (MARC) - Water Quality Education Committee, and the Johnson County K-State Research & Extension Council (K-State). The following is a summary of public education/outreach activities completed.</p> | | |
| | <p>a) 2014 REGIONAL STORMWATER SYMPOSIUM: Organized and hosted by the MARC. One day event focused on NPDES MS4 permit compliance. Goal was to convene representatives from public works, planning, water and parks departments, engineering firms, regulatory agencies and nonprofit organizations to reflect upon the history and future of stormwater management efforts in Greater Kansas City.</p> | Number of attendees | 122 attendees |
| | <p>b) 2014 HEALTHY YARDS EXPO: Expo provided residents with the opportunity to educate themselves about responsible lawn care practices and products and services available to them to improve stormwater stewardship. The Expo also includes an educational lecture series where attendees can learn from experts in various healthy lawn care topics.</p> | Number of attendees Number of exhibitors | 730 attendees 25 exhibitors |

| | | | |
|---|--|---|--|
| | <p>c) PRINT MEDIA: Newspaper ads to generate general awareness about stormwater pollution prevention. Topics may include; trash, healthy lawn care, soil testing, pet waste etc...</p> <p>d) BILLBOARDS: Indoor/outdoor billboard type ads to generate general awareness about stormwater pollution prevention. Topics may include; trash, healthy lawn care, soil testing, pet waste etc...</p> <p>e) INTERNET/SOCIAL MEDIA: Emails/Tweets/Facebook Posts and other online media to generate general awareness about stormwater pollution prevention. Topics may include; trash, healthy lawn care, soil testing, pet waste etc...</p> <p>f) COMMUNITY EVENTS: Provide educational content at local events and festivals. Includes activities performed by K-State, MARC, and City</p> <p>g) MARC: Various stormwater topics such as: native landscaping guidance, proper pet-waste disposal, responsible lawn care practices and other stormwater stewardship topics (available through MARC)</p> | <p>Number of ads Number of impressions</p> <p>Number of billboards Number of impressions</p> <p>Number of ads Number of impressions</p> <p>Number of events Number of people reached</p> <p>Number of placements Estimated Gross Impressions from print media</p> | <p>46 ads published 5,376,000 Impressions.</p> <p>46 indoor billboards 3,482,952 Impressions</p> <p>23 ads published 1,019,848 Impressions</p> <p>12 Events 4,000 people reached</p> <p>13 276,000</p> |
| 2 | <p>Stormwater Website: Maintain webpage(s) dedicated to general stormwater education and pollution prevention. http://www.jocogov.org/dept/public-works/stormwater-management/water-quality/about-water-quality</p> | <p>Number of page views</p> | <p>83 page views (</p> |
| 3 | <p>Annual Program Review: Assess applicability of BMPs for MCM1 in SMP</p> | <p>Review and revise as necessary</p> | <p>BMPs Reviewed No revisions required</p> |

2. Public Involvement and Participation (Table)

List all of the public involvement and participation BMPs as identified in the SMP and provide the requested information in the following table.

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|---|---|--|
| 1 | <p>Promote Community Involvement in Stormwater Water Quality Issues: The JCSMP provided funding on behalf of all MS4 permitted cities in Johnson County for the following public participation/involvement programs.</p> <p>a) BMP COST SHARE PROGRAM: Program to encourage individual landowners and businesses to incorporate stormwater BMPs on their property that reduce stormwater runoff and aid in the improvement of water quality. The JCSMP Program provided funding to cities to reimburse residents up to 50% for select BMPs installed</p> <p>b) FREE SOIL TESTING PROGRAM: Tests offered through K-State. Goal is to educate residents that applying fertilizer without a current soil test can result in over application and excessive nutrient runoff. Participants receive a custom report with recommended rates of application and proper timing.</p> | <p>Number of BMPs installed</p> <p>Number of soil tests</p> | <p>57 BMPs installed county-wide</p> <p>876 soil tests county-wide</p> |
| 3 | <p>Mechanism for Public Participation: Post Annual Report and current effective SMP on website. Provide mechanism for public to comment and assist with developing, implementing, updating, and reviewing the SMP if they desire. http://www.iocogov.org/dept/public-works/stormwater-management/water-quality/hnpdes-information</p> | <p>Documents on website?</p> <p>Contact information provided on-line?</p> | <p>Yes</p> <p>Yes</p> |
| 4 | <p>Comply with Public Notice Provisions: Comply with applicable state and local public notice requirements when revising the SMP. Provide opportunity for public comment and provide feedback to public comments as required.</p> | <p>Revisions advertised, Comments addressed</p> | <p>No revisions required</p> <p>No comments received</p> |

| | | | |
|---|--|--------------------------------|-----------------------|
| 5 | Annual Program Review: Assess applicability of BMPs for MCM2 in SMP | Review and revise as necessary | No revisions required |
|---|--|--------------------------------|-----------------------|

3. Illicit Discharge Detection and Elimination

Place a check mark in the appropriate box.

| | Yes | No | Not Applicable |
|--|-----|--------------------------|--------------------------|
| 1. Has a program/plan been developed and is it presently implemented to detect and address illicit/prohibited discharges into the MS4? | X | <input type="checkbox"/> | |
| 2. The permit requires the permittee enact ordinances resolutions or regulations. Have any ordinances, resolutions or regulations to prohibit non-stormwater discharges into the MS4 been enacted? | X | <input type="checkbox"/> | <input type="checkbox"/> |
| Effective Date: February 14, 2008 | | | |
| Has the ordinance, resolution or regulation been modified? | | | |
| Effective Date: NO | | | |
| 3. Have the ordinances, resolutions or regulations and/or modifications been submitted to KDHE for review? | X | <input type="checkbox"/> | |
| 4. Have public employees, business, and the general public been informed of the hazards associated with illegal discharges and improper disposal of waste? | X | <input type="checkbox"/> | |
| 5. Have public employees, business, and the general public been informed of the hazards associated with illegal discharges and improper disposal of waste? | X | <input type="checkbox"/> | |
| 6. Have stormwater inlets & detention ponds been inspected? | X | <input type="checkbox"/> | |
| 7. Are restaurant waste grease areas inspected? | X | <input type="checkbox"/> | |
| 8. Are septic systems inspected? | X | <input type="checkbox"/> | |
| 9. Are the streets swept frequently? | X | <input type="checkbox"/> | |
| 10. Is there a yard waste management program? | X | <input type="checkbox"/> | |
| 11. Are snow removal activities inspected? | X | <input type="checkbox"/> | |
| 12. List all of the illicit discharge detection and elimination BMPs as identified in the SMP and provide the requested information in the table on the following pages. | | | |

3. Illicit Discharge Detection and Elimination (Table)

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|--|---|--|
| 1 | Implement IDDE Plan: Implement plan to detect, identify the source, and eliminate non-stormwater discharges to the MS4. | Plan Implemented Actions Documented | Yes Yes |
| 2 | Storm Sewer System Map: Maintain updated map of MS4 showing storm sewer outfalls and names and location of all waters of the US that receive discharges from outfall. | Map Updated (as required) | Yes |
| 3 | Stormwater Hotline: JCSMP maintains a dedicated phone number (913)715-6969 and on-line reporting system that residents can use to report incidents of stormwater pollution and suspected violators. Phone messages and online reports are forwarded to the appropriate city. http://www.jocogov.org/dept/public-works/stormwater-management/report-pollution . | Number of Reports Investigation/Actions Documented | 1 Yes |
| 4 | HHW Collection: The JCSMP provided financial assistance to the DHE and the city of Olathe's HHW Collection programs. This funding allowed for an increase in drop-off appointments at both facilities that would not have otherwise been possible. | Number of participants Pounds of HHW collected | 13,599 Participants Countywide 1,214,871 Pounds Collected |
| 5 | HHW Education: Public education campaign to encourage residents to use the program and importance of proper HHW disposal. | Number of Impressions | 1,742,000 Impressions |

| | | | |
|---|---|---|--|
| 5 | <p>Septic System Inspection Program: Johnson County DHE staff performs inspections of all on-site sewer systems at construction and resale of property</p> | <p>Number of inspections</p> <p>Number of soil profile analysis</p> <p>Number of required repairs</p> | <p>279 residential 330 commercial</p> <p>62 soil profile analysis</p> <p>222 repairs completed</p> |
| 6 | <p>Grease Management Program: Johnson County Wastewater Staff inspects restaurants for proper grease trap interceptor installation and compliance with pump schedule</p> | <p>Number of plan reviews</p> <p>Number of inspections</p> | <p>71 plan reviews</p> <p>42 inspections</p> |
| 7 | <p>Annual Program Review: Assess applicability of BMPs for MCM3 in SMP</p> | <p>Review and revise as necessary</p> | <p>No revisions required</p> |

4. Construction Site Stormwater Runoff Control

Place a check mark in the appropriate box.

| | Yes | No | Not Applicable |
|---|-----|--------------------------|--------------------------|
| 1. The permit requires the permittee to enact ordinances, resolutions or regulations. Has an ordinance, resolutions or regulation to address construction site runoff from new development and redevelopment projects been enacted? Effective Date: February 14, 2008 | X | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Has a copy of the ordinance, resolution or regulation been submitted to KDHE for review? | X | <input type="checkbox"/> | |
| 3. Has a procedure or program been developed requiring construction site owners and/or operators to implement appropriate erosion and sediment control best management practices? | X | <input type="checkbox"/> | |
| 4. Has a procedure or program been developed requiring construction site owners and/or operators to control waste such as discarded building materials, concrete truck washout, chemicals, paint, litter and sanitary waste at construction sites likely to cause adverse impacts to water quality? | X | <input type="checkbox"/> | |
| 5. Has a procedure been developed and implemented requiring site plan approval of erosion control and debris container locations incorporating consideration of potential water quality impacts? | X | <input type="checkbox"/> | |
| 6. After approval, is a construction site permit issued? | X | <input type="checkbox"/> | |
| 7. Has a procedure been developed for the receipt and consideration of information submitted by the public? | X | <input type="checkbox"/> | |
| 8. Has a procedure been developed and implemented for construction site inspection and enforcement of the control measures? | X | <input type="checkbox"/> | |
| 9. Are construction site inspection and enforcement actions successful? | X | <input type="checkbox"/> | |
| 10. Are site owners and/or operators provided instruction On proper construction site erosion and waste control? | X | <input type="checkbox"/> | |
| 11. List all the construction site stormwater runoff control BMPs as identified in the SMP and provide the requested information in the table on the following pages | | | |

4. Construction Site Stormwater Runoff Control (Table)

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|---|--|---|
| 1 | Inspection and Enforcement: Review Plans, issue permits, track violations and enforcements measures. | Number of violations Violations and enforcement measures documented | 0 Yes |
| 2 | Receipt of Public Information on Compliance: Provide a mechanism for receipt and consideration of information submitted by the public on construction site compliance. | Number of Reports Investigation/Actions Documented | 0 Not Required |
| 3 | Contractor Training: Provide education and informational resources for contractors installing and using erosion and sediment control measures on construction sites. This year the Johnson County Contractors Licensing Program offered the 8-hour the "ABCs of BMPs" class that instructs contractors on proper erosion and sediment control at construction sites. | Number of individuals trained. | 99 attendees |
| 4 | Annual Program Review: Assess applicability of BMPs for MCM4 in SMP | Review and revise as necessary | No revisions required |

5. Post-Construction Site Stormwater Management in New Development and Redevelopment.

Place a check mark in the appropriate box.

Yes No

1. The permit requires the permittee to enact a program to address post-construction site stormwater runoff from new development and redevelopment.

The program developed to manage stormwater in new development and redevelopment projects must include the following elements:

- a. Strategies which include a combination of structural and/or Non-structural BMPs,
- b. Measures to ensure adequate long-term operation and maintenance of BMPs,
- c. Site Owner or operator name and telephone number Responsible to ensure adequate long-term operation Maintenance of BMPs,
- d. BMPs to prevent or minimize adverse water impacts.

- | | | | |
|----|---|--------------------------|--------------------------|
| 2. | Has a post-construction stormwater runoff program been Implemented? | X | <input type="checkbox"/> |
| 3. | Have post-construction sites been inspected? | X | <input type="checkbox"/> |
| 4. | Have there been post-construction violations? | <input type="checkbox"/> | X |
| 5. | List all the post-construction site stormwater management in new development and redevelopment BMPs as identified in the SMP and provide the requested information in the table on the following pages. | | |

5. Post-Construction Site Stormwater Management in New Development and Redevelopment Table

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|--|---|---|
| 1 | <p>Implement Post-Construction Stormwater Runoff Control Program: Implement program requiring control of stormwater runoff from new development and redevelopment projects that disturb greater than one acre of land, and requirements for long-term maintenance of structural controls. Required elements of this program include.</p> <p>a) SITE PLAN REVIEW: Ensure site plans incorporate appropriate post-construction runoff controls designed according to previously adopted standards/design manual.</p> <p>b) FINAL CONSTRUCTION INSPECTION: Perform final inspection (or obtain certification from design engineer) to ensure that all post-construction runoff controls were installed according to plans and functioning as designed.</p> <p>c) TRACKING SYSTEM: Maintain database (or other system) to track location and contact information of responsible party for all structural post-construction runoff controls</p> <p>d) LONG TERM MAINTENANCE: Implement an inspection and enforcement program to ensure adequate long-term maintenance of structural post-construction runoff controls.</p> | <p>Plans Reviewed</p> <p>Yes</p> <p>Number of Construction Inspections</p> <p>2</p> <p>Database Updated</p> <p>Not Required</p> <p>Number of Maintenance Inspections</p> <p>0</p> <p>Number of Violations</p> <p>0</p> <p>Enforcement Actions Documented</p> <p>None Required</p> | |
| 2 | <p>Annual Program Review: Assess applicability of BMPs for MCM5 in SMP</p> | <p>Review and revise as necessary</p> | <p>No revisions required</p> |

6. Municipal Pollution Prevention/Housekeeping.

| | | Place a check mark in the appropriate box. | |
|---|--|--|--------------------------|
| | | Yes | No |
| 1. | The permit requires the permittee to enact a program to address Pollution Prevention/Good Housekeeping for Municipal Operations. | | |
| 2. | Has an operation & maintenance program to reduce Pollutant runoff and an audits /inspection program been adopted? | X | <input type="checkbox"/> |
| 3. | Has a municipal employee training program been established? | X | <input type="checkbox"/> |
| 4. | Are oil, hazardous wastes, chemicals and municipal debris properly deposited? | X | <input type="checkbox"/> |
| 5. | Are snow and ice removal material and chemicals properly managed to prevent runoff? | X | <input type="checkbox"/> |
| 6. | Are municipal streets swept on a regular basis? | X | <input type="checkbox"/> |
| 7. | Are municipal stormwater inlets and drains inspected and cleaned? | X | <input type="checkbox"/> |
| 8. | Do municipal snow piles have controlled drainage to prevent runoff pollution? | X | <input type="checkbox"/> |
| List all the Municipal Pollution Prevention/Housekeeping BMPs as identified in the SMP and provide the requested information in the table on the following pages. | | | |

7. PHASE I OPERATORS ONLY - Monitoring Industrial and High Risk Run-off

| | | Place a check mark in the appropriate box. | |
|---|---|--|--------------------------|
| | | Yes | No |
| 1. | Has the permittee developed and maintained a list of the municipal industrial facilities contributing to the pollutant loading to the municipal storm sewer system? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Has at least two municipal industrial facilities on the list had an inspection and sampling conducted? | <input type="checkbox"/> | <input type="checkbox"/> |
| If the answer to items 1 and 2 is "No" provide a statement on the Phase I operator form Appendix B as to why monitoring and control has not occurred. | | | |
| Complete Monitoring form in Appendix B. | | | |

6. Municipal Pollution Prevention/Housekeeping Table

| BMP ID Number | Brief BMP Description | Measurable Goal(s) | Progress Achieving Goal(s) (Measured Result) |
|---------------|--|--|---|
| 1 | <p>Reduce Pollutant Runoff From Municipal Operations: Required elements of this program include.</p> <p>a) STORMWATER MANAGEMENT AUDITS: Periodically audit community-owned facility(s) and/or community operations that may potentially impact surface water through the MS4.</p> <p>b) STORMWATER POLLUTION PREVENTION PLANS: Develop SWPPP(s) for facility(s) and/or operation(s).</p> | <p>Facility Name/Operation Date of last audit</p> <p>SWPPP(s) completed and on file</p> | <p>Westwood Public Works Facility November 3, 2014</p> <p>Yes</p> |
| 2 | <p>Municipal Employee Training: Implement training program for employees and document training.</p> <p>a) STORMWATER WEBINARS: Hosted by MARC. Various stormwater topics for municipal staff.</p> <p>b) STORMWATER TRAINING VIDEOS: The video Rain Check is available through the JCSMP. The video focuses on reducing stormwater pollution from municipal facilities and activities. A quiz and employee training tracking form is provided along with the video.</p> <p>c) In house training for Pollution Prevention at the Public Works Facility.</p> | <p>Number of webinars Number of city attendees</p> <p>Number of city attendees</p> <p>Number of city attendees</p> | <p>6 Webinars 0</p> <p>0</p> <p>2</p> |
| 3 | <p>Annual Program Review: Assess applicability of BMPs for MC6 in SMP</p> | <p>Review and revise as necessary</p> | <p>No revisions required</p> |

F. Recordkeeping and Reporting

Attach a report which addresses the following subjects:

1. A general assessment of the appropriateness of the various BMPs included for each of the major program elements as follows:
 - a. TMDL regulated pollutants (Appendix A contains TMDL Report Forms)
 - b. Public Education and Outreach
 - c. Public Involvement and Participation
 - d. Illicit Discharge Detection and Elimination
 - e. Construction Site Stormwater Runoff Control
 - f. Post-Construction Site Stormwater Management in New Development and Redevelopment
 - g. Pollution Prevention/Good Housekeeping for Municipal Operations


Issues which may be addressed include:

- a. Are the BMPs appropriate for local population?
 - b. Are the BMPs appropriate for the pollution sources?
 - c. Are there specific concerns related to the local receiving waters that may justify a change in BMPs?
2. An assessment of the effectiveness of the BMPs towards achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP).
3. Provide a summary of results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the SMP.
4. Provide a summary of the planned changes in stormwater activities which are scheduled to be undertaken during the next annual reporting cycle. This should address the implementation of new BMPs and/or the deletion of BMPs and include a projected schedule for the month or quarter when the BMP will be either implemented or discontinued. Please note a revised SMP document should be submitted for KDHE review if BMPs are revised.
5. Provide a list of other municipalities/contractors, if any, which will be responsible for implementing any of the program areas of the SMP.

The various documents which are required to be included in the annual report may be attached as appendices with this Annual Report document. The permit requires various monitoring results be reported. The additional Water Monitoring Results documents found in Appendices A and B include report forms to be used for this Annual Report. Appendix A is to be used by both Phase I and Phase II MS4s. Appendix B is to be used by Phase I MS4s. Additional copies of the forms may be generated as necessary to provide reports of all results. Include the annual report file along with all appendices and other required documents on the CD submission of the Annual Report. The permit establishes several reporting requirements, please review "PART V REPORTING" within the permit and ensure the various items which must be reported with the annual report are included with the report. Updated Stormwater Management Program documents, i.e., the plan or SMP, must be submitted with the Annual Report.

G. Certification

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

Signature of Permittee:  Date Signed: 02/26/2015
(Legally responsible person)

Name (Printed): John Sullivan Title: Director of Public Works

40 CFR 122.22 Signatories to permit applications and reports.

(a) Application. All permit applications shall be signed by either a principal executive officer or ranking elected official.

All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. Submit this report to:

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

Municipal Programs Section
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367

B. EXECUTIVE SUMMARY

Append an executive summary to this report which briefly covers the major aspect of the MS4 stormwater management program enacted during the year. In completing the executive summary, the preparer should address the following questions:

1. Were there any aspects of the program that appeared especially effective at reducing pollutants in your stormwater discharge?
2. Were there any aspects of the program that provided unsatisfactory results?
3. What was the most successful part of the program?
4. What was the most challenging aspect of the program?

Executive Summary

Unincorporated Johnson County partnered with the Johnson County Stormwater Management Program (JCSMP), who coordinated a cooperative approach for 12 Cities and unincorporated Johnson County, to help meet selected minimum control measures mandated in the NPDES Phase 2 Stormwater permits. In particular, the JCSMP coordinates efforts for best management practices (BMPs) under minimum control measures 1 and 2, but have also assisted with MCM's 3-6 as well. The coordinated approach through this partnership has proved to be cost effective and reduces redundancy amongst the cities in Johnson County.

- 1) Due to the nature of non-point source pollution, it is difficult to say that any aspect of the program was the most effective at reducing pollutants in stormwater runoff. However, we believe that our efforts under public education (MCM 1) and public participation (MCM 2) that were focused on responsible lawn care practices and anti-littering were successful at reaching a broad number of residents with messaging that hopefully will encourage behavior change or, at the very least, increase awareness. An estimated 9.7 million impressions were generated through print media, indoor billboards, and web-based outreach this year.
- 2) None of the 6 program elements were unsatisfactory
- 3) The KC Regional Stormwater Symposium was a success. It brought together representatives from federal/state agencies and the local communities to reflect upon the history and future of stormwater management efforts in the greater Kansas City area. Other successful efforts include the K-State Healthy Yards and Communities Expo and the MARC multi-media education campaigns. These programs reached the most Johnson County residents by far.
- 4) The most challenging aspect of this program has always been drawing a correlation between activities in the SMP to actual improvements in water quality. For example, we reached millions of people with our public education and outreach campaigns, but there is no direct way to attribute this to actual pollutant reduction numbers.

F. RECORDKEEPING AND REPORTING

1. A general assessment of the appropriateness of the various BMPs included for each of the major program elements, as follows below. Issues which may be addressed include:
 - Are the BMPs appropriate for local populations?
 - Are the BMPs appropriate for the pollution sources?
 - Are there specific concerns related to the local receiving waters that may justify a change in BMPs?

A. TMDL regulated pollutants

No TMDLs listed in permit

B. Public Education and Outreach

In addition to any city specific BMPs the JCSMP sponsored a variety of BMP's on behalf of all MS4 permitted cities in Johnson County. The public education and outreach BMP's ranged from traditional face-to-face education at community events and expos to more general print/billboard/web-based advertising. In all, an estimated 9.7 million impressions were generated from these activities. We feel these BMP's are appropriate for this MCM and the local populations. Coordinating efforts at the county and regional level has led to a more consistent message and will hopefully be more effective at influencing behavior changes. There are no concerns for receiving waters that would justify a change in these BMPs.

C. Public Involvement and Participation

In addition to any city specific BMPs the JCSMP sponsored a variety of activities on behalf of all MS4 permitted cities in Johnson County. The public participation and involvement BMP's included the BMP Cost-Share Program for Homeowners and the free soil testing program. We feel these BMP's are appropriate for this MCM and the local populations. The BMP Cost-Share program encourages residents to incorporate structural BMPs on their property to attenuate the discharge of stormwater runoff from their property, thereby reducing the load on the receiving stream. As an added benefit, this program often generates discussion among neighbors about stormwater quality and quantity. Residents who take part in the free soil testing program receive a custom report with recommended rates of application and proper timing. There are no concerns for receiving waters that would justify a change in these BMPs.

D. Illicit Discharge Detection and Elimination

The City has passed an ordinance to prevent the discharge of pollutants from land and activities into the MS4. The City has also implemented a plan to detect, identify, and eliminate non-stormwater discharges into the MS4. In addition to these city specific BMPs the JCSMP sponsored countywide HHW collection activities at Olathe Municipal Services and the Johnson County Household Hazardous Waste Facility. In addition, the Johnson County DHE also performed inspections of septic systems at construction and resale of property. We feel these BMP's are appropriate for this MCM and the local populations. Our IDDE ordinance gives the city the enforcement tools necessary to

require responsible parties to eliminate the illicit discharges. The countywide HHW program encourages residents to dispose of HHW properly, thereby reducing illegal dumping. The septic inspection program identifies deficiency's and forces homeowners to bring septic system back into compliance before the property can be sold. There are no concerns for receiving waters that would justify a change in these BMPs.

E. Construction Site Runoff Control

The City has passed an ordinance to control the release of pollutants from construction site activities. The City has also adopted procedures for construction site inspection and enforcement of control measures. The procedures address preconstruction planning and permitting, recommended inspection frequency, recordkeeping and reporting, enforcement response plan, and tips for inspecting construction sites. In addition to these city specific BMP's the Johnson County Contractor Licensing Department offered educational training on proper erosion and sediment controls on construction sites and administered a test to become a Certified Inspector in Johnson County. We feel these BMP's are appropriate for this MCM and the local populations. Our E&SC ordinance gives the city the enforcement tools necessary to require responsible parties to reduce pollution caused by construction activities. While sediment pollution remains a concern for receiving waters, it does not justify a change in these BMPs at this time.

F. Post-Construction Site Stormwater Management in New Development and Redevelopment

The City has passed an ordinance requiring control of stormwater runoff from new development and redevelopment projects that disturb greater than one acre of land, and requirements for long-term maintenance of structural controls. The City has also adopted a procedure to track the location of all structural controls and the contact information for the person responsible for long-term maintenance. We feel these BMP's are appropriate for this MCM and the local populations. Our ordinance gives the city the enforcement tools necessary to require owners to install and maintain post construction runoff controls. There are no concerns for receiving waters that would justify a change in these BMPs.

G. Pollution Prevention/Good Housekeeping for Municipal Operations

In addition to any city specific BMPs, MARC hosted stormwater webinars for municipal staff on various stormwater topics. In addition, the JCSMP has two copies of the training video "RainCheck" available for municipalities to train employees on reducing stormwater pollution from municipal facilities and activities. We feel these BMP's are appropriate for this MCM and the local populations and there are no concerns for receiving waters that would justify a change in these BMPs.

2. An assessment of the effectiveness of the BMPs towards achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP).

The BMPs were effective toward achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable. Particularly effective were:

The cooperative approach Johnson County municipal entities utilized to implement Public Education/Outreach and Public Participation/Involvement. By pooling financial and technical resources within the county and with the region, municipal entities were able to implement consistent educational messages raise awareness of water quality and begin to change behavior. Also, this cooperative effort has extended towards developing and implementing ordinances, policies, and implementing appropriate Best Management Practices that will also have a beneficial impact on water quality in our watersheds. An increase in public awareness of water quality issues was demonstrated by the public opinion survey in year 5 of the permit when that was compared to the 2006 survey results. The cooperative approach is important as we tackle inter-jurisdictional challenges posed by addressing TMDLs. Municipal entities will continue to work cooperatively on permit compliance for the next permit cycle.

3. Provide a summary of results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the SMP.

No additional information or monitoring data was collected during this permit year.

4. Provide a summary of the planned minor changes in stormwater activities to accomplish the SMP designated goals that are scheduled to be undertaken in the next annual reporting cycle.

We received a renewal MS4 permit in February 2014 and will be submitting a new 5-year SMP along with this annual report.

5. Provide a list of proposed major changes to the SMP. This should be a list of major changes in direction for any of the designated goals of the SMP. It does not include the minor changes in stormwater activities (listed in item 4) being planned to accomplish a previously designated goal. Examples of a major change would be the implementation of new BMPs and/or deletion of a BMP. Include a projected schedule for the month or quarter when the BMP will be either implemented or discontinued.

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6. Provide a list of other municipalities/contractors, if any, which will be responsible for implementing any of the program areas of the SMP.

The City is ultimately responsible for permit compliance, however assistance with various program areas of the SMP were provided by the following entities:

MCM1: MARC, K-State Research and Extension, JCSMP

MCM2: K-State Research and Extension, JCSMP

MCM3: JCSMP, DHE, JCW

MCM4: None

MCM5: None

MCM6: MARC, JCSMP

Record Keeping and Reporting: Assistance provided by JCSMP