

### III. Stormwater Management Plan (SWMP)

#### A. INTRODUCTION

This SWMP is an attachment to the NPDES permit application and contains proposals for implementing the Minimum Control Measures set forth in 40 CFR Part 122.34(b). \_\_\_\_\_ believes this SWMP meets or exceeds the requirements set forth in 40 CFR Part 122.34, and requests that these proposals be incorporated into the NPDES permit for its Municipal Separate Storm Sewer System (MS4).

At the time of this application, \_\_\_\_\_ is a member of the Papillion Creek Watershed Partnership (PCWP) through an inter-local agreement with other cities, counties, and the Papio-Missouri River Natural Resources District, located within the Papillion Creek Watershed. The goal of the PCWP is to develop a consistent and effective storm water management program throughout the urbanized areas of the Watershed, while sharing resources to accomplish this goal in the most cost-effective manner possible. Certain activity commitments in the SWMP may be completed through cooperative efforts carried out by the PCWP. However, if the applicant ceases to be a member of the PCWP, or the PCWP ceases to exist, the applicant is still responsible for performing the commitments in the SWMP.

It is anticipated that the NPDES permit will require an Annual Activity Report, in which the activities undertaken to comply with the *Measurable Commitments & Implementation Schedule* set forth in the SWMP below will be verified. The Annual Activity Report will be submitted within 90 days after each anniversary date of the permit.

**Requirement #1: Public Education & Outreach**

| <b>BMP #</b> | <b>SWMP Element Description</b>  | <b>Measurable Commitments &amp; Implementation Schedule</b>  |
|--------------|--|--|
| 1.A          | The applicant individually or as a member of the PCWP will create and distribute informational brochures on the proper disposal of household hazardous wastes and the availability of the Household Hazardous Waste facility.                | Year 1- Develop program for distributing informational brochures on the proper disposal of hazardous waste.<br>Year 2 thru 5 – Print and distribute brochures. Include the following in Annual Activity Reports: the quantity of waste received at the drop-off facility; a summary list of the distribution outlets used for brochures; and an estimate of the brochures distributed each year. |
| 1.B          | The applicant individually or as a member of the PCWP will provide information concerning best management practices and participate at public educational events such as Earth Day.  | Years 1 thru 3: Develop materials and implementation plan. Summarize progress and plans in the Annual Activity Report.<br>Years 4 thru 5: Print and/or broadcast announcements. Provide information on the number of announcements made and the media used in the Annual Activity Report.  |
| 1.C          | The applicant individually or as a member of the PCWP will issue public service announcements related to storm water protection on local TV, radio or print outlets.   | Ongoing, all years. A summary of the activities will be included in the Annual Activity Report.  |
| 1.D          | Applicant will initiate a storm water drain-stenciling program to improve public awareness concerning illegal dumping. Develop standard specifications which require stenciled or adhered markers be provided for new concrete storm drains. | Year 1 – Develop standard specifications for marking storm drain inlets.<br>Year 2 thru 5 – Implement standard specifications marking storm drain inlets and include summary of installations in Annual Activity Report.   |

Comments: The stenciling of existing drain inlets is not included since this is likely to be a grant-funded activity if it occurs.

**Requirement # 2: Public Participation and Involvement**

| <b>BMP #</b> | <b>SWMP Element Description</b>   | <b>Measurable Commitments &amp; Implementation Schedule</b>   |
|--------------|---|---|
| 2.A          | The applicant individually or as a member of the PCWP will create and operate a system for handling phone calls and email for storm water-related concerns in the Watershed (general information, complaints, reports of illegal dumping, etc.). Also See BMP 2.D below.  | Year 1 - Set up system to receive calls/email, documentation system, and forwarding protocols to responsible Partnership jurisdiction for response and/or corrective action.<br>Years 2 thru 5 – Maintain system operation and include summary of received calls/emails in the Annual Activity Report.  |
| 2.B          | The applicant as a member of the PCWP will participate in organizing and holding public meetings on Papillion Creek Watershed Plan updates and to solicit feedback for management policies, proposed BMP's, financial reports, etc.   | Organize and hold 1 public meeting each year. A summary of activities and feedback will be included in the Annual Activity Report.  |
| 2.C          | The applicant individually or as a member of the PCWP will implement a Stream Cleanup Day. Identify stream segments in need of cleanup and request volunteers from the local area, public groups, and representatives from local area business and developments.  | Year 1 - Develop procedures for organization of cleanup day and an implementation plan.<br>Years 2 thru 5 - Conduct one clean-up day each year. A summary of the clean-up day activities will be included in the Annual Activity Report.  |
| 2.D          | The applicant as a member of the PCWP will participate in the operation of the PCWP website. Currently the website contains storm water related information and provides educational information to communities, businesses, and schools. Anticipated future enhancements include creation of an email comment/complaint form as part of the system described in 2.A above; and creation of a survey form for comments and suggestions on Watershed Planning. | Operation of website ongoing, all years. A summary of website updates will be included in the Annual Activity Report.<br>Year 1 - Prepare input forms and establish guidelines for response.<br>Year 2 to 5 - Have forms available on website. Include the following in the Annual Activity Report: the number of complaints and comments received each year and a summary of comment responses as related to Watershed Planning. |
| Comments:    |   |   |

**Requirement # 3: Illicit Discharge Detection and Elimination**

| <b>BMP #</b>  | <b>SWMP Element Description</b>   | <b>Measurable Commitments &amp; Implementation Schedule</b>  |
|---|---|--|
| 3.A   | The applicant will perform dry-weather inspections of all known, major storm water outlets (i.e., those with diameters of 36" or greater) concurrent with investigations to develop a sewer system map (See 3.C below). Inspections will include flow estimations, physical characteristic examinations (See attached procedure), and, if necessary to identify sources or pollutants, screening for additional pollutants. Will also inspect storm water outlets, including smaller outlets and those that discharge to lesser tributaries or other storm conduits, in response to suspect conditions and/or complaints. | Year 1 thru 2 - Identify and initially inspect existing stormwater outfalls in named creeks within the permitted area. Inspection records of these observations will be kept and included in the Annual Activity Report.<br>Year 3 thru 5 – Investigate new or newly-discovered stormwater outfalls in named creeks and report observations in the Annual Activity Report.<br>Years 1 thru 5 - Follow-up will also be conducted as set forth in BMP 3.E below. |
| 3.B   | The applicant will develop an ordinance to prohibit illicit non-storm water discharges accompanied by appropriate penalties and enforcement procedures. On new construction this will be enforced, in part, through the building permit process.  | Year 1 - Draft proposed ordinance for consideration by applicant’s public officials.<br>Year 2 - Anticipate passage of ordinance by the end of this year.<br>Year 3 thru 5 – Implement and enforce ordinance after its passage.  |
| 3.C   | The applicant will develop a sewer system map of major storm water outfalls and identify the names of respective receiving waters. Mapping is to be GIS based. This map is intended to update the map submitted as part of the application pursuant to 40 CFR Part 122.33(b)(2)   | Years 1 and 2 - Complete mapping for existing stormwater outfalls in named creeks and include map in Annual Activity Report<br>Years 3 thru 5 - Maintain system for incremental new construction and include updated map in Annual Activity Report.  |
| 3.D   | The applicant individually or as a member of the PCWP will implement a BMP/water quality tracking database (decision support system), including protocols for sharing resources within the Partnership and training staff. Functionality of database includes tracking of field inspections, annual reporting, and ties to GIS mapping if appropriate.  | Ongoing, all years, input updated data and include documentation in Annual Activity Report.  |
| Requirement # 3: Illicit Discharge Detection and Elimination - Continued on next page |   |  |

| <b>BMP #</b> | <b>SWMP Element Description</b>   | <b>Measurable Commitments &amp; Implementation Schedule</b>   |
|--------------|---|---|
| 3.E          | <p>The applicant will investigate and seek resolution concerning any dry weather discharges of potentially polluted wastewater sources by notifying the source that they must discontinue discharging, and will initiate enforcement action consistent with adopted ordinance (See 3.B above). Any source that the applicant feels constitutes an immediate health or safety threat will be reported immediately to the NDEQ.</p> | <p>Ongoing all years.<br/>                     The following information will be included in the Annual Activity Report:<br/>                     1) the number of process or potentially polluted wastewater sources found;<br/>                     2) the number of above resolved at local level; and<br/>                     3) the identity of any referred and/or unresolved discharge sources.</p> |

**Requirement # 4: Construction Site Runoff Control**

| <b>BMP #</b>   | <b>SWMP Element Description</b>  | <b>Measurable Commitments &amp; Implementation Schedule</b>  |
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| 4.A  | The applicant will develop and implement a storm water management and erosion control ordinance for construction sites down to 1 acre in size. Provisions will be included for design and specification review, for enforcement and penalties, for Erosion and Sediment Control requirements consistent with design criteria that meet the requirements of NDEQ’s NPDES storm water permit for construction sites, and for waste disposal with respect to discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site.                  | Year 1: Draft an ordinance for consideration by applicant’s public officials and provide for public input, as well as providing NDEQ with an opportunity for input.<br>Year 2: Complete enactment of effective ordinance.<br>Years 3-5: Implement ordinance through commitments made in BMP Elements 4.B and 4.C.  |
| 4.B  | The applicant as a member of the PCWP will participate in the implementation of a Contractor Certification Program by conducting by providing annual instruction in conjunction with 4.A above and 4.C below.  | Year 1 thru 4 - Provide one voluntary class per year. Include summary of participants and instruction in Annual Activity Report.<br>Year 5 – Provide voluntary class and evaluate the need for a mandatory program. Include summary of participants, instruction, and recommendation in Annual Activity Report.  |
| 4.C  | Applicant will develop and implement a construction site inspection program that included procedures for reporting and resolving deficiencies, notifying NDEQ of non-complying sites; and procedures for referral to NDEQ of non-complying sites that are not responding to local enforcement actions. Identify priority sites based on the nature of the site in terms of size, topography, soil characteristics, and receiving waters. Problems on previous sites will also be a consideration in targeting inspections. Follow-up inspections will be conducted when non-compliance is cited. | Years 3-5: Begin activity one (1) year after the ordinance is enacted and continue through the remainder of permit term.<br>The Annual Activity Report will contain the following information relative to this commitment:<br>1) the number of inspections conducted in each of the following size categories: 1 to < 5 acres, 5 to < 20 acres, 20 to < 40 acres, & > 40 acres;<br>2) the number of sites receiving deficiency and non-compliance notices;<br>3) a summary report on any enforcement actions taken;<br>4) the identity of any sites that did not resolve deficiencies or non-compliance in a timely manner or that were referred to NDEQ; and<br>5) the identity of any developer or contractor that had re-occurring compliance problems. |
| Comment: Complaints will be handled by the system established through BMP 2.A. |  |  |

**Requirement # 5: Post-construction Runoff Control**

| <b>BMP #</b> | <b>SWMP Element Description</b>   | <b>Measurable Commitments &amp; Implementation Schedule</b>  |
|--------------|---|--|
| 5.A          | The applicant will include requirements for BMP Inspection and Maintenance in ordinance required in 4.A above.  | Year 1: Draft proposed ordinance for consideration by applicant’s public officials.<br>Year 2: Anticipate passage of ordinance by the end of this year.<br>Years 3-5: Implement and enforce ordinance through commitments made in BMP 5.B  |
| 5.B          | The applicant will implement procedures for post construction site inspection (similar to 4.C above, except for follow-up inspections within one year of completion of construction). Identify priority sites based on the nature of the site in terms of size, topography, soil characteristics, and receiving waters. | Years 3-5: Begin activity one (1) year after the ordinance is enacted and continue through the remainder of permit term.<br>The Annual Activity Report will contain the following information relative to this commitment:<br>1) The number of inspections conducted in each of the following size categories: 1 to < 5 acres, 5 to < 20 acres, 20 to < 40 acres, & > 40 acres;<br>2) The number of sites receiving deficiency and non-compliance notices;<br>3) A summary report on any enforcement actions taken;<br>4) The identity of any sites that did not resolve deficiencies or non-compliance in a timely manner or that were referred to NDEQ; and<br>5) The identity of any developer or contractor that had re-occurring compliance problems. |
| 5.C          | The applicant individually or as a member of the PCWP will develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the watershed.   | Year 1 – Hold public meeting concurrent with BMP 2.B designed to gather public input, include summary of meeting in Annual Activity Report.<br>Year 2 - Coordinate responses and incorporate them into existing comprehensive or master plans, include summary in Annual Activity Report.<br>Year 3 to 5 – Revise local ordinances and regulations to support master plan strategies and implement strategies; include summary in Annual Activity Report.  |
| Comments:    |   |  |

**Minimum Requirement # 6: Pollution Prevention/Good Housekeeping for Municipal Operations**

| <b>BMP #</b> | <b>SWMP Element Description</b>   | <b>Measurable Commitments &amp; Implementation Schedule</b>   |
|--------------|---|---|
| 6.A          | The applicant will manage their vehicle maintenance facility to comply with the No Exposure Status as identified using NPDES form 3510/11 on an annual basis.   | Ongoing all years.<br>A completed and current copy of Form 3510/11, signed by the maintenance facility superintendent, shall be included in each Annual Activity Report.                              |
| 6.B          | The applicant will inspect storm sewer conduits, channels and catch basins and remove sediment and debris as needed to maintain an efficient system within permitted area, and will transport said materials to the municipal solid waste landfill for disposal.  | Ongoing all years. A maintenance report will be included in the Annual Activity Report.   |
| 6.C          | The applicant will develop and implement a training program for employees to prevent pollutant runoff from municipal operations. This would include training for general operation and maintenance activities, schedules, inspections, controls on the discharge of pollutants from streets, proper maintenance of salt/sand storage areas, waste cleanup and handling from transfer stations, etc. Identify responsible departments and personnel for training on operation and maintenance program. | Year 1 – Develop program and training materials and include them in Annual Activity Report.<br>Year 2 thru 5 – Conduct training annually for employees and include summary in Annual Activity Report. |
| 6.D          | The applicant will conduct street cleaning on an ongoing basis, so as to reach all paved streets at least once every other year.  | Ongoing all years.<br>The approximate miles of streets cleaned per year will be included in the Annual Activity Report.   |

**IV. Monitoring requirements****Activity #7: Storm Water Monitoring Plan**

| <b>SWMP Element #</b> | <b>SWMP Element Description</b>  | <b>Measurable Commitments &amp; Implementation Schedule</b>  |
|-----------------------|--|--|
| 7.A                   | <p>The applicant as a member of the PCWP will participate with in-stream water quality monitoring of named creeks in the Papillion Creek Watershed. Pollutant parameters to be analyzed will include BOD5, TSS, ammonia-nitrogen, nitrate-nitrogen, total nitrogen, soluble and total phosphorus, turbidity, pH fecal coliforms, E. coli, and Physical Characteristic Examinations. The purpose of the monitoring will be to identify any water quality concerns or pollutant sources so as to allow for evaluation and improvement of storm water management practices.</p>   | <p>Year 1 - Develop monitoring plan and submit to NDEQ for review and comment.<br/>Years 2 thru 5: Conduct monitoring.</p> <p>The following information shall be included in the Annual Activity Report:</p> <ol style="list-style-type: none"> <li>1) The monitoring data; and</li> <li>2) A summary report on the findings relative to SWMP efforts.</li> </ol>  |
| 7.B                   | <p>The applicant as a member of the PCWP will participate in wet weather monitoring of a set of storm water outfalls identified in coordination with development of the water quality monitoring program established under BMP 7.A. on at least one storm water outfall annually. Test parameters will be the same as those specified in 7.A above. Composite samples that represent the peak flush of the discharge will be obtained for all parameters, except pH and the bacterial counts for which grab samples are required. Flow estimations as well as the intensity, timing and duration of any recent storm water events will be recorded. The in-stream water quality testing results, as well as watershed characteristics, will be considered in selecting the monitoring site(s). Also BMP assessment monitoring may be conducted in lieu of storm sewer outfall testing.</p> | <p>Year 1 - Develop monitoring plan and submit to NDEQ for review and comment. Years 2 - 5: Conduct monitoring.</p> <p>The following information shall be included in the Annual Activity Report:</p> <ol style="list-style-type: none"> <li>1) the location of the monitoring site;</li> <li>2) the intensity and duration of the storm event monitored;</li> <li>3) the timing of sampling in comparison to the occurrence of the storm event and to the discharge of peak storm water flows;</li> <li>4) the monitoring data; and</li> <li>5) a summary report on the findings relative to SWMP efforts.</li> </ol> |

**Record Keeping**

All records of SWMP and Storm Water Monitoring activities will be kept for a period of at least 3 years.