



## City of Bellevue

Public Works Administration

1510 Wall Street • Bellevue, Nebraska 68005 • (402) 293-3025

March 27, 2018

Ryan Joe  
NPDES Permits and Compliance Unit, Water Quality Division  
NE Dept. of Environmental Quality  
P.O. Box 98922  
Lincoln, NE 68509-8922

RE: Annual Report City of Bellevue Stormwater Permit and Request for Permit Modification  
NPDES General Permit NER200000

Dear Mr. Joe:

The City of Bellevue was issued a NPDES permit on September 30, 2009, which authorizes the City to discharge storm water and other allowed flows from the MS4 to waters of the State including an MS4 discharge that may reach waters of the State through intermediate drainage ways or conduits. This permit requires that the City submit an Annual Report. The 2017 report is enclosed.

Sincerely,

Jeffrey L. Roberts, P.E.  
Public Works Director

JLR/ke



NPDES PERMIT (NER210000) FOR SMALL MUNICIPAL STORM  
SEWER DISCHARGES TO WATERS OF THE STATE LOCATED IN  
DOUGLAS, SARPY, AND WASHINGTON COUNTIES OF NEBRASKA

NPDES PERMIT NUMBER 2000002

2017 ANNUAL REPORT

Submitted by:

CITY OF BELLEVUE

1500 Wall Street  
Bellevue, NE 68005

March 28, 2018

Report of 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 gathered and evaluated 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 known violations. See 18 U.S.C. 1001 and 33 U.S.C 1319, and Neb. Rev. Stat. 81-1508 thru 81-1508.02."



\_\_\_\_\_  
Signature of Authorized Representative or Cognizant Official

3/28/18

\_\_\_\_\_  
Date

Joe Mangiamelli

\_\_\_\_\_  
Printed Name

City Administrator

\_\_\_\_\_  
Title

**A. BACKGROUND**

On October 1, 2009 the Nebraska Department of Environmental Quality (NDEQ) issued a National Pollutant Discharge Elimination System (NPDES) permit NER210000 for Small Municipal Storm Sewer discharges to waters of the state located in Douglas, Sarpy, and Washington Counties of Nebraska. The co-permittees of the Papillion Creek Watershed Partnership (PCWP) currently authorized to discharge municipal storm water under this permit are Bellevue, Boys Town, La Vista, Papillion, Ralston and Sarpy County.

The NPDES permit requires that the co-permittees submit by April 1 each year an Annual Report documenting the status of all the general programs and individual tasks contained in the Storm Water Management Plan (SWMP). This document is being submitted by the City of Bellevue to meet that requirement and covers the period from January 1-December 31, 2017.

**B. COOPERATIVE AGREEMENT**

The Partnership entities entered into an interlocal agreement in 2001 and continuation agreements in 2004, 2009 and 2014 that established a framework for meeting the permit requirements. The 2014 agreement was approved by the following entities Bellevue, Boys Town, La Vista, Papillion, Ralston, Sarpy County, Gretna, the Papio Missouri Natural Resources District and City of Omaha. These agreements identify the lead organization and the participating partners for each SWMP element and establish a basis for cost-sharing to meet the Phase II permit requirements of the permittees. The 2017 annual report will address the SWMP from the 2009 permit as a new permit was established in July 2017 and the SWMPs for the coordinated partners is waiting for public notice and approval.

**C. PERMITTEE COORDINATION**

In 2001, the PCWP began as a planning committee to assist the Phase II communities in addressing their permit application requirements. The focus of the continuation agreement reached in 2004 was on the implementation of the SWMP as incorporated in the general NPDES permit. The 2009 agreement focused on an overall watershed plan addressing water quality and water quantity for the participating members as well as a renewal of the NPDES permit and implementation of the updated SWMP. The 2014 agreement continues implementation of the watershed plan along with a renewal of the NPDES permit and an updated SWMP. A new permit was effective July 2017 however, the SWMP for the coordinated programs is waiting final approval and public notice.

The PCWP has held monthly meetings since August 2001. The meetings help to coordinate activities, and identify needs consistent with the goals of the PCWP, and implement the NPDES permit SWMP.

## **1. Public Education and Outreach**

*1.A. Distribute informational brochures on the proper disposal of household hazardous waste and the availability of the Household Hazardous Waste Facility. Year 1-5: Print and distribute brochures.*

The Douglas-Sarpy County regional household hazardous waste (HHW) facility, UndertheSink opened in June 1, 2005. Brochures are available at the facility for distribution, and can be printed from the website [www.underthesink.org](http://www.underthesink.org). Brochures contain a variety of information about the site, including materials accepted and not accepted, hours of operation, and alternative use products. Ten (10) tours were conducted in 2017.

Keep Omaha Beautiful and the City of Omaha Stormwater staff assisted the PCWP with distribution of different types of brochures and educational information and materials throughout 2017. Brochure topics include pollution prevention, good housekeeping, pesticide, fertilizer, and household hazardous waste. They were present at community events and outreach activities where 4,856 brochures distributed on 21 various topics. Brochures and educational information were delivered to commercial and public locations around the area and presentations made to local groups, a list of locations and summary of presentations are provided in Attachment A.

In the 2017 calendar year UnderTheSink, the household hazardous waste facility, had a total of 18,483 drop offs resulting in a total 1,148,991 lbs of material, an average of 5,745 lbs/day (of days accepting waste). A total weight of 185,081 lbs of HHW was shipped offsite by the disposal contractor. Those drop-offs and that total weight can be further broken down into:

### Recycling Totals in 2017:

- Steel from paint and aerosol cans: 56,940 lbs
- Latex paint used with Posi-Shell at Sarpy County Landfill: 28,435 gal
- Oil-based paint and flammable liquids used as industrial fuel: 13,805 gal
- Antifreeze recycled: 2,940 gal
- Automotive batteries: 12,935 lbs
- Fluorescent bulbs: 14,151 bulbs

### Oil Totals in 2017:

- Collected approximately 10,820 gal from 6,042 people
- Sold a total of 4,380 gal during the summer to Tri-State Oil Reclaimers, Inc.
- The remaining oil, was/is being burned in the waste-oil boiler

### ReStore Totals in 2017:

- People who took free usable items for their own use: 11,804 persons
- Weight of non-paint items taken: 226,976 lbs
- Gallons of free paint taken: 21,891 gal

**This permit requirement has been met.**

*1.B. Issue public service announcements related to stormwater protection on local TV, radio or print outlet. Year 1-5: A summary of the activities will be included in the Annual Report.*

In addition to the distribution of educational brochures and public outreach events completed by Keep Omaha Beautiful, the City of Omaha, and PCWP entities, the Papio NRD aired public service announcements (PSAs) on local television and radio throughout 2017 titled, "The Power of Partnership" and "It Happened Before". These PSA discusses the importance of working together in the watershed to address water quality and quantity. The PSAs can be viewed on the Papio NRD's website.

**This permit requirement has been met.**

*1.C. Continue existing drain marking program to improve public awareness concerning illegal dumping utilizing volunteer services (e.g. Boy Scouts) which will address TMDL pollutants of concern. Year 1-5: Mark approximately 1,000 inlets annually and include a summary in the annual report.*

KOB continues to utilize a GIS tracking system to better direct the volunteers to areas that do not have storm drains marked. The City of Omaha has approximately 110,000 storm drains, using the GIS system should make tracking those inlets which have been marked or need marking easier to manage. KOB coordinated volunteers throughout 2017 to mark and clean storm sewer inlets. In 2017, 1,903 inlets were marked by 734 volunteers.

**This permit requirement has been met.**

*1.D. Hold a Sediment and Erosion Control Seminar for the developers, builders, engineers, vendors and graders which will address TMDL pollutants of concern. Year 1-5: Hold annual Sediment and Erosion Control Seminar. Include a summary of the approximate number of participants in the Annual Report.*

The annual Sediment and Erosion Control Seminar was held on February 2, 2017 hosted by the City of Omaha, PMRNRD, Douglas-Sarpy County Extension Office, NDEQ, NRCS, PCWP, and USACE. The seminar provided engineers, developers, and construction companies information on NPDES Phase II regulations, the PCWP's grading permit program and sediment and erosion control BMPs. The seminar had 271 attendees.

**This permit requirement has been met.**

*1.E. Work collaboratively with other community organizations to develop a campaign aimed at picking up pet waste which will address TMDL pollutants of concern. Year 1: Develop outreach material and partnerships. Year 2-5: Distribute information.*

The City of Omaha hired a marketing firm, MINT Design Group, to assist in the development and implementation of pet waste campaign. Advertisements were developed and published in several area newspapers, billboard space was used, mass mailings distributed, theater advertising purchased, posters placed on litter cans, radio announcements broadcast, a television commercial produced, and other media printed. It was a very successful campaign and won the Silver Award in the Total Advertising Campaign category from the Eighth Annual Service Industry Advertising Awards. For this reporting period, events where brochures on limiting pollution and pet waste bags were distributed are listed below:

Date	Location	Dispensers	Flyers	Activity
2/9/17	Century Link Center	0	10	Show & Garden Expo Wheeler Elem
4/10/17	Wheeler Elementary	9	0	School Presentation
4/22/17	Elmwood Park	383	50	Earth Day Omaha
5/9/17	Elmwood Park	0	0	Together We Build a Better City
5/12/17	Zorinsky Lake	0	0	Spring into Summer
9/24/17	Nebraska Humane Society	562	15	Walk for the Animals
9/30/17	Youngman Park	0	1	Fly into Fall

In addition to the outreach activities, the City of Omaha has also collaborated with the Omaha Dog Park Advocates by installing pet waste dispensers and supplying pet waste bags for the two dog parks in Omaha. Twenty-two (22) cases of pet waste bags were used at the dog parks equaling 70,400 bags used. The Papio NRD installed two pet waste dispensers and pet waste bags at Chalco Recreation Area in Sarpy County.

The City of Bellevue has eight parks that have pet waste stations. A total of approximately 32,000 bags were used during this permit year.

**This permit requirement has been met.**

*1.F. Develop materials and displays associated with BMP demonstration projects installed with Stormwater Management Program Project funds from NDEQ. Year 1-5: Provide a narrative and examples of materials developed in annual report.*

Educational signage is located at the UnderTheSink Facility, Metropolitan Community College and the City of Omaha 's Orchard Park which are all accessible by the public. In 2016 signage was placed at the Creighton Prep demonstration project. Signage at these locations explains the design and function of the BMP's onsite.

The green and traditional roofs at the Saddlebrook Joint Use facility, located in Omaha's jurisdiction, have two weather monitoring stations installed. The public can view the differences between the two on two separate screens; one located in the library the other located in the stairwell outside of the indoor track. There are also webcams directed toward the green roof which will also be displayed on the screens. Information on the green roof is available through the website [www.omahastormwater.org](http://www.omahastormwater.org) which has a direct link from the PCWP website.



In collaboration with the US EPA Office of Research and Development, USGS, the Omaha CSO Program, and the University of Nebraska Extension a kiosk was placed at the Douglas County Extension Office that shares real-time data of the Sewer Maintenance bioretention and permeable pavement demonstration project installed in 2014. In 2016, the kiosk was removed from its location and stored the EQCD offices until a program update was put onto the machine. During this time, the EPA transferred ownership of the kiosk to the University of Nebraska at Omaha. The content on the kiosk is currently being updated and was placed on UNO's campus in 2017.

In 2016, three stormwater demonstration projects were constructed, a bioswale and hydrodynamic separator were constructed at the City of Omaha's Vehicle Impound Lot, a sediment capture structure and drainage channel improvements were installed as part of the Hillsdale Channel Improvement project, and a green infrastructure classroom project at Dundee Elementary School was designed with construction completed in 2017.

Project fact sheets and signage continue to be developed for Omaha Stormwater Program's demonstration projects and Omaha CSO Program green infrastructure projects to share basic information on each project with the community. Currently 15 Green Infrastructure fact sheets have been created and are available to the PCWP communities. These are shared with participants on tours and other outreach events.

The Omaha Stormwater Program's website, [www.omahastormwater.org](http://www.omahastormwater.org), features demonstration and other green infrastructure projects. Information provided includes photos, background information, and other specific information on them as they mature from year to year.

**This permit requirement has been met.**

*1.G. Develop a PCWP Stormwater Program Website, including but not limited to storm water related information and provide educational information targeted for residents, children, and industries which will address TMDL pollutants of concern. Year 1-5: Develop, operate and maintain a PCWP Stormwater web site. Include narrative in the Annual Report describing the functions of the web site. Ensure that the web site is accessible from each community's web site.*

The PCWP website, [www.papiopartnership.org](http://www.papiopartnership.org), includes but is not limited to, the contact information for PCWP representatives (including links to the respective PCWP representative's websites) and the illegal dumping/illicit discharge report form, PCWP meeting minutes, upcoming meetings and outreach opportunities, PCWP permits, past reports, and studies are also available on-line as well as general information about the PCWP and about watersheds, best management practices, and stormwater management in general. Additional items located on the website are the current PCWP interlocal agreement, watershed management plan, implementation plan, and stormwater policies. All of which were adopted by the PCWP

coordinated partners in 2014. These documents are included as Attachment B. A link is also included to the City of Omaha's stormwater web site, [www.omahastormwater.org](http://www.omahastormwater.org).

The City of Omaha has developed and deployed a website, [www.omahastormwater.org](http://www.omahastormwater.org) dedicated to the City's Stormwater Management Program. From the website industries within the PCWP can access the necessary documents to apply for stormwater permits.

Residents can access information from the City of Omaha's website as to how they can improve water quality through actions they take at home. Children's activities are also available on the website. There is public information available on the demonstration storm water best management practices that have been implemented in areas of the city. The public can access information related to the monitoring program. Additionally, there is an online complaint or comment form available to the public. Attachment C provides the download statistics for the omahastormwater.org website and Omaha Stormwater Facebook Page for 2017.

**This permit requirement has been met.**

## **2. Public Participation and Involvement**

*2.A. Operate a stormwater hotline and web based complaint system for Watershed (general information, complaints, reports of illegal dumping, etc.). Year 1-5: Maintain system operation and include summary of received calls/emails in the Annual Report.*

The City of Omaha continues to maintain a phone line, 402-444-3908, for handling stormwater calls. Clerks are available during regular business hours to handle calls for the City and the PCWP member entities. The clerks answering the hotline are required to complete a form when answering the calls so that all the required information is collected. The form is tied to a database that stores all calls received and provide a mechanism for tracking calls. A representative from the City of Omaha will use the information stored in the database to direct the call to the appropriate PCWP representative or their designee.

There were zero (0) illicit discharge complaints received via the Papio Partnership website ([www.papiopartnership.org](http://www.papiopartnership.org)) or the hotline in 2017 for our jurisdiction. Public complaints on sediment and erosion control can be logged into the erosion website ([www.PCWPErosionControl.org](http://www.PCWPErosionControl.org)).

**This permit requirement has been met.**

*2.B. Participate in organizing and hold open houses on Papillion Creek Watershed Partnership activities. Year 1-5: A summary of activities will be included in the Annual Report.*

The PCWP held four meetings in 2017, which are open to the public, and the minutes for those meetings are available on the PCWP website at [www.papiopartnership.org](http://www.papiopartnership.org).

**This permit requirement has been met.**

*2.C. Continue to implement a Stream Clean Up Day. Utilize KOB to 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 1-5: Conduct one clean-up day each year. A summary of the clean-up day activities will be included in the Annual Report.*

Keep Omaha Beautiful, Inc. (KOB) organized the 2017 Stream Clean ups. There were a total of 413 cleanup efforts throughout the year. 4,809 volunteers donated 11,914 hours collecting 3,276 bags of litter. In addition to the water courses, parks and trails were also targeted in the cleanup efforts.

**This permit requirement has been met.**

*2.D. Provide tours of UndertheSink, household hazardous waste facility, for schools and neighborhood organizations to learn about the proper way to manage household chemicals and about stormwater treatment systems installed at the site. Year 1-5: Provide a summary of the tours conducted on an annual basis for the annual report. Document when BMPs are installed and included in the tour.*

Ten (10) tours were conducted in 2017 at UndertheSink. Several BMPs including a series of rain gardens have been reconstructed and are included as part of the tour.

**This permit requirement has been met.**

*2.E. Hold World O! Water festival focused on elementary school aged children to celebrate clean water and engage in water quality related activities. Year 1-5: Hold event annually. Report estimated number of participants in Annual Report.*

The World O! Water Festival was held on September 9, 2017 from 12 PM until 4PM at Wehrspann Lake / Chalco Hills Recreation Area. There were over 50 organizations that participated by handing out information, conducting an activity or providing a demonstration. The number of visitors attending World O! Water in 2017 was 2,400. Information available at the event included water stewardship, recycling, water quality, and water conservation. Activities included a watershed pollution demonstrative model, canoe rides, nature hikes, and science experiments and more.

**This permit requirement has been met.**

*2.F. Participate in community organizations, conferences, workshops and web casts related to water quality and stormwater management. Year 1-5: Report number of staff attending, dates, location and description of events.*

A Sediment and Erosion Control seminar was held on February 2, 2017 with 271 attendees. Many special interest group meetings were conducted in 2017 on topics regarding stormwater awareness education, pollution prevention and water conservation. This effort reached many school students and other individuals. The Papio NRD presented stormwater related information at the Omaha Home Show on April 7-9, 2017. Industry representatives were reached through interaction and presentations at several conferences and meetings such as the Spring Stormwater Symposium, 2017 National Watershed and several presentations. In addition, webcasts were offered throughout the year to PCWP members on a variety of topics from the Center of Watershed Protection and the Papio-Missouri River Natural Resources District held a number of presentations on water quantity and water quality to community organizations. A summary of outreach activities can be found in Attachment D.

**This permit requirement has been met.**

### **3. Illicit Discharge Detection and Elimination**

*3.A. Dry-weather inspections including Physical Characteristics Examinations of storm water outfalls 72" or greater and any outfalls with documented complaints. Year 1-5: Inspect and record observations. Include a count of outfalls inspected in the Annual Report.*

The City of Bellevue is responsible for 705 outfalls, 200 require mandatory inspection. All of the outfalls within the city limits and most of the ones outside have been located with GPS. A few outside the city limits were located using aerial photography. The formal inspection process began in 2012 with 100% of mandatory inlets inspected.

**This permit requirement has been met.**

*3.B. Investigate and seek resolution concerning any dry weather discharges by notifying the source that they must discontinue discharging, and initiate enforcement action consistent with adopted ordinance which will also address any TMDL pollutants of concern. Any source that the applicant feels constitutes an immediate health or safety threat will be reported immediately to the NDEQ. Year 1-5: The following information will be included in the Annual Report; the number of process or potentially polluted wastewater sources found; the number of above resolved at local level; and the identity of any referred and/or unresolved discharge sources.*

There were no illicit discharge reports in 2017.

**This permit requirement has been met.**

*3.C. The applicant will perform dry weather inspection of storm water outfalls, including smaller outlets and those that discharge to lesser tributaries or other storm conduits, in response to suspect conditions and/or complaints. Year 1-5: Inspect and record observations. Included a count for outfalls inspected in the Annual Report.*

Approximately 80% of total outfalls were inspected. No illicit discharges or violations were noted.

**This permit requirement has been met.**

*3.D. Enforce existing ordinances/regulations prohibiting illicit discharge connections to storm sewers. Year 1-5: Summarize code violations and enforcement actions taken in Annual Report.*

Dry weather discharges identified, as the outfalls are inspected will be investigated with respect to the source of the discharge. The Physical Characteristics Examination (PCE) will be completed as part of the inspection process and, if there is reason to believe that the discharge is allowable under the stormwater ordinance/regulation, the investigation will be terminated. If the PCE indicates that there may be an illicit connection, a more comprehensive investigation will be undertaken that may involve sampling the discharge, tracing the line upstream to identify potential sources, and questioning potential dischargers. If a potential source is identified, information will be provided regarding the impact to human health and the environment to resolve the problem.

There were no reports of illicit discharge during 2016.

**This permit requirement has been met.**

*3.E. Maintain and prevent instances of sanitary sewer leakage into MS4 or waters of the state. Year 1-5: Summarize investigations of leakage and actions taken in Annual Report.*

There were no reported sanitary sewer leakages during 2016.

**This permit requirement has been met.**

*3.F. Maintain and update a sewer map of major storm water outfalls and identify the names of respective receiving waters. Year 1-5: Map will be maintained electronically on City or County GIS.*

Each community in the PCWP sends information to the Douglas or Sarpy County GIS departments where the outfall maps are maintained. The websites for Douglas and Sarpy Counties are <https://www.dogis.org> and <https://maps.sarpy.com/html5viewer/index.html?Viewer=SIMS> respectively.

**This permit requirement has been met.**

*3.G. Prevent, contain and respond to spills in the MS4. Review, as necessary, interdepartmental SOPs with respect to spills dumping and illegal disposal that impacts the MS4. Year 1-5: Summarize number of reports of spills and actions taken in Annual Report. Identify respective Department SOP and review date in Annual Report.*

There were no spills reported in 2016.

**This permit requirement has been met.**

#### **4. Construction Site Runoff Control**

*4.A. Maintain the PCWP construction site inspection and reporting web site and continue to make enhancements. Year 1-5: Include a narrative in the annual report about major web site upgrades and the date implemented.*

The web site was upgraded for easier use in 2014 and is now able to merge information for grading and post construction permit information for the projects in the PCWP jurisdictions. The Permixon website combines City of Omaha permit processes and benefits the PCWP communities by providing one location for uploading and storing information on post construction stormwater permits and grading permits.

**This permit requirement has been met.**

*4.B. Maintain a construction site inspection program that includes procedures for reporting, resolving deficiencies, and taking appropriate enforcement action consistent with adopted ordinances. Years 1-5: The Annual Report will contain the following information relative to this commitment: 1) the number of inspections conducted in each of the following size categories: < 5 acres and > 5 acres; and 2) the number of sites receiving enforcement actions.*

Grading permits are required for all developments in the Papillion Creek Watershed and are tracked electronically on the PCWP's web based system, Permixon. Omaha inspectors review weekly site inspection reports from the permittees, make periodic inspections to verify the permittee reports, notify the permittees when deficiencies are detected, and notify the permitting authority when enforcement is necessary. Priority sites are determined by the construction phase, with the initial site work being the highest priority. The goal of the

construction site inspection program is to achieve voluntary compliance, but referrals will be made to NDEQ for non-complying sites not responding to local enforcement actions.

Violations processed in 2017 are referenced in Attachment E as well as a breakdown of permits and inspection reports by community. The table below summarizes PCWP construction inspections for 2017.

	City Inspection Reports	Private Inspection Reports
<b>Phase I Sites (&gt;5 acres)</b>	1,247	7,812
Phase II Sites (<5 acres)	951	4,513
<b>Total</b>	<b>2,198</b>	<b>12,325</b>

**This permit requirement has been met.**

*4.C. Maintain regulations and design specifications for controlling erosion, sediment loss, and other TMDL pollutants of concern from construction sites that disturb areas of 1 acre or more. Year 1 -5: Provide a narrative description of any changes implemented in sediment and erosion control regulations or design specifications in the annual report.*

In 2015, Chapters dealing with the post construction BMPs (Chapter 8) and Erosion and Sediment Control (Chapter 9) were updated in the Omaha Regional Stormwater Manual which is adopted by all members of the PCWP. The update of these chapters provides more detailed information on selection of BMPs for both post construction and erosion and sediment control as well as providing information on newer technologies and a wider variety of practices.

**This permit requirement has been met.**

*4.D. Maintain a program for performing review of Grading Permit applications to ensure compliance with applicable regulations and design specifications. Year 1 -5: Summarize the number of grading permits issued on an annual basis.*

In 2017, there were 75 Phase I grading permits and 98 Phase 2 grading permits issued in the PCWP communities. A breakdown of grading permits by community is shown in Attachment E.

**This permit requirement has been met.**

**5.0 Post-Construction Runoff Control**

*5.A. Develop a guidance document for Post-Construction Stormwater Management Plan. Year 1: Revise ordinances as necessary to institute authority to require the use of post-construction stormwater controls. Year 2: Develop guidance document for Post Construction Storm water Management Plan Year 2-5: Revise as necessary.*

Omaha has developed guidance documents and inspection forms for BMPs that are available to the PCWP members and are located on the PCWP website ([www.papiopartnership.org](http://www.papiopartnership.org)). The post construction stormwater management web site, Permix, is active and makes the review process easier as well as provides a single location for plans, inspections, maintenance forms, etc. As mentioned earlier, chapters of the Omaha Regional Stormwater Manual have been updated to provide a more comprehensive list of BMP details and specifications. Guidance documents and the Stormwater Manual will continue to be analyzed and reviewed by all members of the PCWP to determine if updates are necessary.

**This permit requirement has been met.**

*5.B. Develop a database of existing structural BMPs (private and public) that reduce the impact of urbanization on storm water run-off and improve water quality and enhance other amenities and activities such as green space, parks and recreation, urban planning, aesthetics, and public safety. Year 2: Coordinate with engineering firms and the NRD to identify existing BMPs and their location. Year 3: Develop a database and GIS map of BMPs.*

The Permix software used for post construction stormwater permits and grading permits keeps a record of the location of each BMP installed with development by jurisdiction. This data can be used to create a GIS layer and database to identify BMPs installed.

**This permit requirement has been met.**

*5.C. Inspect annually and maintain (as necessary) the MS4 owned storm water BMP structures. Year 1 -5: List BMPs inspected and summarize maintenance activity in Annual Report.*

The City of Bellevue constructed a 10-acre lake in American Heroes Park which includes a pier that is ADA accessible. The City of Bellevue continues to clean and remove debris from Eagles Nature Trail.

In conjunction with the Papio-Missouri River Natural Resources District, a WaterWISE BMP was constructed in 2013 at the 36<sup>th</sup> Street Trail Head – Big Papio Creek by Culver’s. The project consisted of the construction of a bio-retention garden, widening the existing swale to create a bio-swale with native grasses, and an overflow detention basin which was planted with native grasses. The City of Bellevue continues to maintain this area.

**This permit requirement has been met.**

*5.D. Revise stormwater BMP maintenance and inspection plan as needed. Year 1-5: Review maintenance plan annually and include new structures. Make revisions as necessary. Report revisions and new structures in Annual Report.*



Stormwater BMP maintenance and inspections are ongoing in PCWP communities. The Permix website is in place to help the review process with post construction stormwater management in all the PCWP communities. This website provides a place to store documentation on the maintenance and inspections of the BMPs. The process continues to be monitored and any revisions will be reported.

**This permit requirement has been met.**

*5.E. Implement strategies, which include a combination of structural and or non-structural BMPs appropriate for the watershed, which will address potential TMDL pollutants of concern. Non-structural BMP's, including improved planning and site design, shall be a priority. Evaluate these strategies and implement changes as necessary to improve water quality and address potential TMDL pollutants of concern. Year 1 -5: Summarize strategies in the Annual Report.*

The communities of the PCWP have adopted ordinances requiring the first half inch of runoff be controlled on site and that the 2-year peak flow be maintained on new development. These local ordinances are intended to address water quality in the watershed. Adopting these ordinances along with the Watershed Management Plan and Implementation Plan will address potential TMDL pollutants of concern. Stormwater policies adopted by the PCWP members also help provide strategies for improving water quality and addressing pollutants of concern. The Watershed Management Plan, Implementation Plan and Stormwater policies are included as Attachment B. Additional efforts include the development of a Natural Resources Inventory (NRI). The NRI is intended to be a tool to help the PCWP communities identify areas for preservation and priority areas for stream restoration. An initial phase of the NRI was completed in 2013 and the results presented to the PCWP. Recent efforts include a Basin wide Water Quality Management Plan for the Omaha Metro Area and larger Papio NRD basin which is funded by the PCWP, City of Omaha, Papio NRD and Nebraska Department of Environmental Quality. This plan will help identify target areas for water quality projects to address impaired waters and TMDL pollutants of concern. The plan is expected to be complete in June 2018.

**This permit requirement has been met.**

## **6. Pollution Prevention/Good Housekeeping for Municipal Operations**

*6.A. Maintain Runoff Control Plans for all the MS4's maintenance facilities to identify BMPs implemented. Review Plan annually and update as necessary. Inspect all facilities annually. Year 1 -2: Develop Runoff Control Plan for maintenance facilities. Year 3-5: Review and Revise Runoff Control Plan. Summarize efforts in Annual Report.*

Evaluation documents for Facility Runoff Control Plans (FRCP) have been developed and templates shared with the members of the PCWP. These templates include a photo checklist, site questionnaire, facility profile sheet, hot spot checklist, photo log and a facility recommended BMP checklist. FRCPs are developed for each facility in the PCWP communities.

**This permit requirement has been met.**

*6.B. Inspect storm sewer conduits, channels and catch basins and remove and properly dispose of sediment and debris as needed to maintain an efficient system within permitted area. Year 1 - 5: Report maintenance activities in the Annual Report.*

The City of Bellevue routinely inspects inlets, drainage pipes, and open channels throughout the city. The City of Bellevue purchased a steerable storm drain tractor to be used to inspect inlets, drainage pipes, and open channels. Recently it was used to inspect a storm sewer for a road project that is to be completed within the Bellevue Cemetery. A remote location camera unit was purchased to inspect some of the storm structures that are more difficult to access.

**This permit requirement has been met.**

*6.C. Provide training for employees to prevent pollutant runoff from municipal operations at the applicant's maintenance facilities and at field operations. Years 1 – 5: Provide training for employees and include summary in Annual Report of when training was held and number of attendees.*

Training was held for employees in all jurisdictions of the PCWP in past years. Community's facility managers were trained on Facility Runoff Control Plans and the implementation of those plans. 19 attendees were at the training meeting in 2012.

**This permit requirement has been met.**

*6.D. Provide for street cleaning in the following areas: Residential; Business; Major Streets; and other areas in conjunction with special projects. Year 1-5: Summarize street cleaning activities in Annual Report.*

The City of Bellevue owns four sweepers that sweep approximately 570 lane miles in the spring and fall.

**This permit requirement has been met.**

*6.E. The applicant's staff that applies pesticides will be trained in a certification program that complies with FIFRA regulations. Year 1 -5: Report total number of Staff certified each year in the Annual Report.*

The City of Bellevue has seven certified pesticide application specialists.

**This permit requirement has been met.**

*6.F. The applicant will continue to minimize pesticide and fertilizer use on publically maintained properties. Year 1 -5: Summarize efforts in Annual Reports.*

The City of Bellevue uses an average of 600 gallons on pesticides a year and 24,000 pounds of fertilizer.

**This permit requirement has been met.**

## **8. Storm Water Monitoring Plan**

### *8.A. The development and implementation of a BMP monitoring plan*

*Monitoring will be flow based monitoring to assess the performance of different BMPs.  
Monitoring Plan:*

- a. Monitoring of the BMPs is to provide more useful data than has been gathered in the past. This will provide for a more complete picture of the efficiency of various Best Management Practices in the watershed.*
- b. Consideration will be given to the following objectives:*
  - i. Quantify the BMPs ability to reduce discharges to the storm sewer system*
  - ii. Evaluate if any improvements could be made to the BMP to increase the volume of water detained from the storm sewer system.*
- c. A record of the following information:*
  - i. Narrative and quantitative data, as appropriate, for each event.*
  - ii. A narrative description of the data and duration of the events sampled (either simulated event or real event)*

The PCWP communities submitted an amendment to the SWMP element of their current permit in 2016 to allow for additional BMP monitoring in place of stream monitoring. The following two studies four studies in 2017 show the efforts in BMP monitoring, which provide base information to quantify BMP efficiency in infiltration and sediment and

pollutant removal. The documents submitted to address Stormwater Monitoring Plan requirement are:

- 2017 monitoring update of infiltration report of existing bioretention, rain gardens and turf grass areas
- Poster of work done by Steve Rodie, UNO & Rachel Burns, Northwest High School of infiltration studying of rain gardens in Saddle Hills, third year
- Assessment of Green Infrastructure at Saddlebrook for 2017
- 2017 Stormwater BMP Monitoring Report

Full reports are included in the report as Attachment F.

**This permit requirement has been met.**

*8.B. Partner with local organizations, such as Nebraska Watershed Network, to evaluate the results of data that they collected that could provide water quality information on stream or urban aquatic fisheries*

The Papillion Creek Partnership and the Nebraska Watershed Network continue to coordinate and support each other's efforts to obtain water quality information. Local partnerships with the University and professional community are evident in the studies included in Attachment F.

*8.C. Use GIS to identify land use based on zoning and calculate pollutant loads from discharges of the MS4 based on literature values and precipitation data.*

In 2017, BMP monitoring occurred in several areas in an effort to gather data to better identify pollutant loads from discharges in regard to land use type. The reports in Attachment F describe varying infiltration rates and sediment and pollutant loading based on BMP location in the watershed and upstream land use. Information will continue to be gathered from the local studies and monitoring.

**This permit requirement has been met.**

## **8. Fiscal Expenditures**

A remote location camera unit was purchased to inspect some of the storm structures that are more difficult to access.

## **9. Changes in MS4 Area**

There were no changes in the MS4 Area for 2017.

### **List of Attachments**

Attachment A. Distribution of Brochures and Event Summary for Public Education and Outreach. Per SWMP item 1.A.

Attachment B. Interlocal Agreement, Watershed Management Plan, Implementation Plan and Stormwater Policies. Per SWMP item 1.G.

Attachment C. OmahaStormwater.org download statistics. Per SWMP item 1.G.

Attachment D. Summary of Outreach Activities. Per SWMP item 2.F.

Attachment E. Grading Permit Summary Report, Grading Inspection Reports, and Violations processed in 2017. Per SWMP item 4.B. and 4.C.

Attachment F. Evaluating Regional Rain Garden Environmental Conditions, Functional Attributes, and Plant Health: A Three-Year Study; Saddlebrook Green Infrastructure Assessment, 2017 Monitoring Summary; Saturated Hydraulic Conductivity (Infiltration) Assessment, 2017 Monitoring Executive Summary; and 2017 Stormwater BMP Monitoring Report for the City of Omaha. Per SWMP item 8A., B. and C.