

BOARD OF COUNTY COMMISSIONERS
SARPY COUNTY, NEBRASKA

RESOLUTION AUTHORIZING THE CHAIRMAN TO SIGN THE 2010 ANNUAL NATIONAL POLLUTANT
DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REPORT

WHEREAS, pursuant to Neb. Rev. Stat. §23-104(6) (Reissue 2007), the County has the power to do all acts in relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. §23-103 (Reissue 2007), the powers of the County as a body are exercised by the County Board; and,

WHEREAS, the County of Sarpy has obtained an NPDES-MS4 Permit concerning storm water runoff in the Papio Creek Basin pursuant to the National Pollutant Discharge Elimination System, Phase II storm water regulations; and,

WHEREAS, the permit requires the approval and submission of an Annual Report and attachments to the Nebraska Department of Environmental Quality.

NOW, THEREFORE, BE IT RESOLVED, By the Sarpy County Board of Commissioners that the 2010 Annual Report as required by the National Pollutant Discharge Elimination System, (NPDES) Phase II storm water regulations, as presented to this Board, is hereby approved.

BE IT FURTHER RESOLVED that the Chair, is hereby designated the Cognizant Official for the purposes of said documents, and the Chair and Clerk are hereby authorized to sign said documents on behalf of Sarpy County, Nebraska

DATED this 29th day of March, 2011.

MOVED by Rusty Hike, seconded by Jim Thompson, that the above Resolution be adopted. Carried.

YEAS:

NAYS:

ABSENT:

[Signature]
[Signature]
[Signature]
[Signature]

none

none

ABSTAIN:
none

Attest:

SEAL

[Signature]
County Clerk



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 NER210000 for
Sarpy County MS4# NER210007

2010 ANNUAL REPORT

Submitted by:

Sarpy County, 1210 Golden Gate Drive, Papillion, NE 68046

March 21, 2011

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

3-29-11

Date

Tom Richards

Printed Name

Chairman, Board of Commissioners

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 Sarpy County to meet that requirement and covers the period from January 1-December 31, 2010 of permit year one.

B. COOPERATIVE AGREEMENT

The co-permittees entered into an inter-local agreement in 2001 and a continuation agreement in 2004 and again in 2009 that established a framework for meeting the permit requirements. The 2009 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. That agreement identified the lead organization and the participating partners for each SWMP element and also established a basis for cost-sharing to meet the Phase II permit requirements of the co-permittees.

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 which addresses 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 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's 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. Brochures contain information about the site, materials accepted and not accepted, hours of operation, and alternative use products.

Keep Omaha Beautiful assisted the PCWP with distribution of 7 different types of brochures and informational cards throughout 2010 about proper paint disposal, alternatives to HHW, and how to manage HHW in and around the home. They were present at events/meetings/booths where the cards and brochures were available. Attachment A contains detailed information on the activities for this task. Informational stands at the point of purchase were placed throughout the region in the commercial outlets listed below:

- O'Reilly Auto Parts – 2 locations
- Auto Zone -- 2 locations
- Advance Auto Parts – 2 locations
- Ace Hardware
- Sherwin Williams
- Lowe's
- Jane's Health Market
- Benson Community Center
- Omaha Public Libraries – 3 locations
- Kroc Center
- Home Depot

Overall 5,319 brochures were distributed in 2010. Additionally, a radio commercial targeting the proper disposal of oil was run on KFAB. Also in 2010, Under the Sink conducted 14 tours and had 12,290 drop offs totaling 892,538 lbs of material which is an average of 4,462 lbs per day. A total weight of 263,086 lbs of HHW was shipped offsite. Total oil collection in 2010 was 8,350 gallons of which 2,600 gallons were sold to Safety Kleen and the remaining oil was burned in the waste-oil boiler. The recycling totals from 2010 include:

- Steel from paint and aerosol cans: 77,260 lbs
- Latex paint used with Posi-Shell at Sarpy County Landfill: 21,450 gal
- Oil-based paint and flammable liquids used as industrial fuel: 17,710 gal
- Antifreeze recycled: 1,540 gal
- Automotive batteries: 12,134 lbs
- Fluorescent bulbs: 5,600

ReStore totals are as follows:

- People who took free useable items for their own use: 7,142
- Weight of non-paint items taken: 108,820 lbs
- Gallons of free paint taken: 14,189 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 at public outreach events, public service announcements were aired on the KFAB, KSRZ 104.5 FM, KKCD 105.9 FM, and KEZO FM for topics regarding Don't Litter-cigarette butts, household hazardous waste disposal of oil, pet waste and announcing the World O Water event. The summary of radio advertisements is included in Attachment A.

Additional efforts were made for the pet waste campaign which aired television commercials, advertised at movie theaters and on billboards. Five hundred and forty nine (549), 30-second ads were run on the National Geographic channel, Discovery Channel, News4You, WOWT Channel 6, and Animal Planet Channel. Advertisements for the pet waste campaign were shown at Marcus Theaters and AMC Theaters. Billboards were used at heavy traffic locations, 72nd & Pacific and 132nd & L.

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.

Last year KOB used a GIS tracking system to better direct the volunteers to areas that did not have storm drains marked. The City 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. This year 2,276 inlets were marked. A summary of storm drain marking activities is detailed in Attachment A.

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 4, 2010 at the Holiday Inn Convention Center in Omaha. The seminar provided engineers, developers, and graders information on NPDES Phase II regulations, the PCWP's grading permit program and sediment and erosion control BMPs. The seminar had 264 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.

A significant effort is already underway on the pet waste campaign and materials have been developed. Along with the earlier mentioned public service announcements on the radio, television, theater and billboards aimed at increasing the public's awareness of pet waste disposal, twenty thousand (20,000) brochures were distributed. A mass mailing was sent to 62,000 dog owners houses to present information on the proper disposal of pet waste. Posters and signs were displayed at various locations as well as numerous newspaper articles. Details of the activities are identified in Attachment A. The campaign was also featured at the Nebraska Humane Society's annual Walk for the Animals event in which information was displayed and 1,000 pet waste bag dispensers were distributed.

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.

Materials were developed for the IECA/Post Construction Stormwater Conference (275 attendees) and the Green Garden Workshop, a sustainable landscaping workshop (80 attendees). Living Green: Benson High School Rain Garden Initiative, Zorinsky Park pervious pavers, and the bioswale at Common Ground were developed from the program project funds from NDEQ. A tour of the Benson High School Rain Garden was attended by 60 people. Additional demonstration projects will be studied and tours developed.

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, 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 are current PCWP interlocal agreement, watershed management plan, implementation plan and

stormwater policies. All of which were adopted by the PCWP co-permittees in 2009. A link is also included to the City of Omaha's stormwater web site.

The City of Omaha has developed and deployed a website, 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 as to how they can improve water quality by actions they take at home. Children's activities are also available on the website. There is also 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.

Sarpy County links to both the City of Omaha and Papio Partnership websites to the Sarpy County Planning Department website.

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, 444-3908, for handling stormwater calls. Clerks are available during regular business hours to handle calls for the City and the PCWP. 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 Partnership representative or their designee.

There were no illicit discharge complaints received via the Papio Partnership website (www.papiopartnership.org) or the hotline in 2010. Public complaints can be logged into the erosion website (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 monthly meetings in 2010 and the minutes for those meetings are available on the PCWP website at www.papiopartnership.org. Public meetings were held on June 29 and August 26, 2010, on the proposed plans for a project proposed in the Watershed Management Plan.

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.

The PCWP partnered with Keep Omaha Beautiful, Inc. (KOB) to organize the 2010 Stream Clean up day on September 18th. There were a total of 48 participants who collected 50 bags of litter during the day. The rainy weather provided a lower turnout than expected. The water courses that KOB targeted were:

Spring Lake Park
Gene Leahy Mall
Fontenelle Park

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.

Fourteen (14) tours were conducted in 2010 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.

World O! Water was held on September 19th at Chalco Hills Recreation Area. Approximately 1500 residents attended the annual event.

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 summary of events is listed in Attachment A. A Sediment and Erosion Control seminar was held on February 4, 2010 with 264 attendees and Post Construction Stormwater Workshop was held in conjunction with the IECA's Great Plains chapter meeting on October 26, 2010 with 275 attendees. Several special interest group meetings were conducted in 2010 on topics regarding stormwater awareness education, pollution prevention and water conservation. This effort reached 1,736 individuals and included a number of school students. Webcasts are offered throughout the year to PCWP members.

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.

No known new outfalls in named creeks found.

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.

Sarpy County enforces the Storm Water Regulations and tracks violations as necessary.

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.

No suspect conditions and/or complaints were documented or reported. Sarpy County has requested dry weather inspections be performed on storm water outfalls and those that discharge to lesser tributaries and storm conduits.

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.

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.

On July 26, 2010, Sarpy County was contacted about a major cave in of the creek bank at the Sarpy County outfall sewer siphon structure and that sewage was being discharged directly into West Papillion Creek. The engineering firm of Thompson, Dreessen, and Dorner (TD2) was immediately contacted and was requested to take the necessary steps to correct the problem. TD2 immediately contacted NDEQ as well as PMNRD, City of LaVista, City of Papillion, City of Bellevue, and City of Omaha to report the problem. Cedar Construction was contacted to repair the sewer line break and to stabilize the creek bank. The sewage flowing into the creek was directed to a secondary pipe by Cedar Construction by 6:00pm on July 26, 2010. The permanent sewer line repair and creek bank stabilization was completed by August 3, 2010.

On December 8, 2010, Sarpy County was notified that a sanitary sewer manhole near 141st and Giles had recently overflowed. Sarpy County immediately contacted Urban Utilities for assistance and then on December 9, 2010 contacted Thompson, Dreessen, and Dorner (TD2) for further assistance. It was determined that an asphalt company had stockpiled a very large quantity of asphalt grinding over a sanitary sewer manhole and while relocating the grindings,

the manhole was knocked off and the sewer line was partially filled with grindings causing a backup to the next manhole upstream. Some of the grindings in the sewer line directly adjacent to the manhole were removed on 12-9-2010 to prevent the danger of additional backups. Equipment was brought in from Chicago, IL to by-pass the sewer line so that the line could be completely cleared. The work was completed by December 23, 2010.

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.

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.

Sarpy County's policy for responding to prevent, contain and respond to spills is as follows:

Step 1: Gathering of facts. Who, What, Where, When, Why and How

Step 2: Determine party to respond. Whose line is it? If it is the County's line, do we have the resources to take care of it? If not, we should contact an engineering firm such as TD2.

Step 3: Contact the appropriate party or parties.

Step 4: Follow up to make sure the appropriate repairs are made.

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.

Currently the web site is being upgraded for easier use and to be able to merge information for grading and post construction permit information for the projects in the PCWP jurisdictions. The old web site is still functional for project inspections and reporting. At present, the web site is under a trial period and it is hoped to be up and running by the middle of 2010.

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 (www.PCWPErosionControl.org) which is currently being improved on. Omaha inspectors will review weekly site inspection reports from the permittees, make periodic inspections to verify the permittee reports, notify the permittees when deficiencies are noted, 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 2010 are referenced in Attachment C. The table below summarizes PCWP construction inspections for 2010.

	City Inspection Reports	Private Inspection Reports
Phase I Sites (>5 acres)	605	4897
Phase II Sites (<5 acres)	535	3664
Total	1140	8561

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.

Chapters dealing with the post construction BMPs are being reviewed and will be updated in the Omaha Regional Stormwater Manual which is adopted by all members of the PCWP. At present the design specifications for erosion and sediment control are being maintained but may be updated in the future.

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 permit issued on an annual basis.

In 2010, there were 26 Phase I grading permits and 65 Phase 2 grading permits issued in the PCWP communities.

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). The post construction stormwater management web site is currently up and running and will make the review process easier as well as provide a single location for plans, inspections, maintenance forms, etc. As mentioned earlier, the chapters of the Omaha Regional Stormwater Manual are currently being updated to provide a more comprehensive list of BMP details and specifications. Guidance documents and the Stormwater Manual will continue to be analyzed and updated.

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.

In 2010, the PCWP purchased CBI software to assist with the tracking of NPDES permits activities. This software is currently being incorporated in to the server systems of the City of Omaha and is anticipated to be used in the next reporting year. This software will provide an opportunity to track BMPs for each member of the PCWP.

This permit requirement is on schedule for completion.

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.

Sarpy County has contacted Thompson, Dreessen and Dorner (TD2) to inspect the MS4 owned storm water BMP structures. If maintenance is necessary, Sarpy County will request TD2 to repair any MS4 owned structures. As of this report, no structures are in need of maintenance.

This permit requirement is on schedule for completion.

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 underway in PCWP communities but the local ordinances have not been in place long enough to make revisions. The process continues to be monitored and any revisions will be reported.

This permit requirement is on schedule for completion.

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 address these strategies for improving water quality. The Watershed Management Plan, Implementation Plan and Stormwater policies are attached as Attachment B.

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.

Runoff Control Plans are currently being developed. Templates and processes developed by Omaha have been shared with the PCWP.

Sarpy County developed Good Housekeeping Plans for all necessary municipal facilities.

This permit requirement is on schedule for completion.

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

Type	Number Inspected (est.)	Number Cleaned (est.)
Conduits	95	4
Channels	18	16
Catch Basins	514	11
Storm drain inlets	1731	42
Erosion Inspections/Maintenance	635	45
Storm Sewer System Maintenance	64	31
Flared End Sections	158	0
Outlets	3	0
Manholes	246	0
Headwalls	15	0
Junction Boxes	22	0
Grate Inlets	147	0
Box Culvert	1	0
2010 expenditures (all types – inspections & cleaning)	\$569,725	

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.

Sarpy County executed a contract with Felsburg, Holt & Ullevig (FHU) to develop a Facility Runoff Control Program (FRCP) for Sarpy County Facilities.

- Hot Spots:
 - Highway Shop on 84th Street
 - Highway Shop in Gretna
 - Fleet Management Shop on 84th Street
- Evaluations were conducted at the following locations:
 - Courthouse Campus
 - Juvenile Justice Center
 - Historical Museum

- The new Law Enforcement Center
- The new Law Enforcement Center Garage

A four-hour block of instruction was provided by FHU on September 28, 2010 to the following attendees, who are now trained to conduct FRCP Inspections:

1. Pat Clarke (Fleet)
2. George Funderburk (Fleet)
3. Rich Weber (Highway – 84th Street)
4. Gregg Nisotis (Highway-84th Street)
5. Ken Weber (Highway – Gretna)
6. Ross Richards (Facilities Management)

There were also a handful of employees who attended a short orientation but are not trained inspectors.

On September 28, 2010, Sarpy County inspected the Highway Shop and Fleet located on 84th Street, and the Highway Shop in Gretna. Rich Weber is the custodian of the inspection manual for 84th Street locations and Ken Weber has the manual for Gretna.

Training is planned for employees in all jurisdictions of the PCWP when Runoff Control plans are developed.

This permit requirement is on schedule for completion.

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.

Miles of Streets Cleaned in 2010 (approximate)	2010 Expenditure	2011 Budget (proposed)
153.92	\$48,200	\$51,150

This permit requirement has been met.

6.E. The applicant's staff that apply 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.

Sarpy County outsources lawn service to include weed control and fertilizer. The vendor is licensed, insured and maintains current applicator certifications. Sarpy County has requested a copy of the applicator certification for reference.

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.

Sarpy County outsources to a vendor pesticide and fertilizer application. The vendor uses a four-step, slow release application for fertilizer and spot sprays only as needed for weeds. All applications are restricted to inner most areas of the property.

Step 1: March
Step 2: May
Step 3: July
Step 4: October

This permit requirement has been met.

8. Storm Water Monitoring Plan

8.A. Conduct in-stream water quality monitoring of named creeks in the Papillion Creek Watershed. Collect samples from at least 4 sites located in the Papillion Creek Watershed. Samples will be collected from May through August one day a week and analyzed for the following parameters: BOD5, TSS, ammonia nitrogen, nitrate-nitrogen, total nitrogen, soluble and total phosphorus, turbidity, pH, E coli, and Physical Characteristic Examinations. The purpose of the monitoring will be to evaluate the effectiveness of storm water management practices in the Papillion Creek watershed as they relate to potential TMDL pollutants of concern.

List of potential sites:

170 and Highway 36 (Big Papio)

77th and L Street (Big Papio)

66th and L Street (Little Papio)

Ft. Crook Road – USGS station (Papillion Creek) Year 1- 5: Conduct monitoring

The following information shall be included in the Annual Activity Report:

- The monitoring data;*
- A summary report on the findings relative to SWMP efforts;*
- Any modifications of monitoring locations or procedures.*

Year 1- 5: Conduct monitoring

The City of Omaha has taken the lead role for the stormwater monitoring elements 8.A and 8.B. The City sampled four sites in the Papillion Creek Watershed in conjunction with NDEQ's Basin Rotation Monitoring Program. Samples were collected one day a week from May 12 through August 11, 2010. Samples were analyzed for the following parameters: fecal coliform, e coli, nitrate / nitrite nitrogen, Kjeldahl nitrogen, nitrite nitrogen, ammonia nitrogen, total phosphorus, dissolved phosphorus, pH, BOD, TSS, TDS, temperature, DO, specific conductivity, and turbidity. Quality control/quality assurance measures were

followed as described in the Sampling and Analysis Plan (submitted to NDEQ April 1, 2005). Sample results are presented in Attachment D. Data qualifiers follow NDEQ's recommended practices.

The data collected serves as a base for comparing data collected in subsequent years when we are able to evaluate how concentrations are changing over time. With only a limited set of data at this time, it is difficult to draw any conclusions regarding the implementation of the Watershed Management Plan's impact on water quality.

This permit requirement has been met.

8.B. Develop an assessment monitoring plan for demonstration BMPs. Evaluate the effectiveness of the selected BMPs to treat storm water for the TMDL pollutants of concern and other water quality benefits. Consider implementation of refinements to the BMPs, which would improve their effectiveness. One aspect of the monitoring plan will include the collection stream samples on the segment that runs through Orchard Park to establish baseline conditions for BMP assessment purposes.

Additionally, the plan will address how the applicant proposed to use stream samples collected in dry weather and wet weather, as described in 8.A above, to estimate the pollutant masses discharged on an event basis and an annual basis.

Year 1 – 2: Visually document and monitor the installation of the demonstration BMPs. Installation is expected to be complete by the end of Year 2. Provide a narrative to report progress in Annual Report.

Year 2: Develop the BMP assessment monitoring plan and submit to NDEQ for approval as an attachment to the Annual Report.

Years 3 - 5: Conduct monitoring.

The following information shall be included in the Annual Activity Report:

- 1) the location of the monitoring site*
- 2) the intensity and duration of the storm event monitored;*
- 3) the timing of sampling in comparison to the occurrence of the storm event and to the discharge of peak storm water flows;*
- 4) the monitoring data; and a summary report on the findings of the removal rates of the constituents monitored for the BMPs.*

The samples taken in 2010 are flow proportioned composites rather than time composites as collected in previous years. This should result in higher quality data which can be used to better calculate pollutant loadings. Additionally, this summer BMP assessment and testing will be completed and results from the effort will be shared in the next reporting period.

This permit requirement is on schedule for completion.

8. Fiscal Expenditures

Sarpy County spent \$4,592.59 to hire a consultant to develop Good Housekeeping Plans for all necessary municipal facilities.

Administrative	2010 Expenditures	2011 Planned
Partnership Meetings/Coordination	\$1000	\$1200
Planning, review, and preparation	\$4500	\$6000
Public Education/Outreach	\$0	\$500
Annual Administrative Total	\$5500	\$7700

Operation and Maintenance

The 2011 estimated budget figures were not available at the time of preparation of this annual report. It is anticipated that these budget figures will be included in future reports.

Operation and Maintenance	2010 Expenditures	2011 Budgeted
Sediment/Erosion Control Program	\$0	
Material Disposal	\$0	
Creek/Open Channel Maintenance	\$0	
Street Sweeping	\$2900.58	
Street /Right of Way Cleaning	\$3499 49	
Unimproved Street Maintenance	\$101,338.76	
Public Education/Outreach	\$0	
MS4 Planning	\$0	
Bridge Maintenance and Rehab	\$0	
Sewer Maintenance	\$0	
Annual O&M Total	\$107,738.83	

9. Changes in MS4 Area

Several annexations were approved by Cities within Sarpy County last year. A current map of Sarpy County's Jurisdiction is attached.

List of Attachments

Attachment A. Listing of public outreach events. Per SWMP item 1.

Attachment B. Watershed Management Plan, Implementation Plan and Stormwater Policies

Attachment C. Violations processed in 2010. Per SWMP item 4.C.

Attachment D. In-stream monitoring of named creeks. Per SWMP item 8 .A.

Attachment E. Changes in MS4 area.

Sarpy County Board of Commissioners

1210 GOLDEN GATE DRIVE
PAPILLION, NE 68046-2895
593-4155

www.sarpy.com

ADMINISTRATOR Mark Wayne

DEPUTY ADMINISTRATOR Scott Bovick

FISCAL ADMIN /PURCHASING AGT. Brian Hanson



COMMISSIONERS

Rusty Hike District 1
Jim Thompson District 2
Tom Richards District 3
Jim Nekuda District 4
Jim Warren District 5

MEMO

To: Sarpy County Board

From: Lisa A. Haire

Re: National Pollutant Discharge Elimination System (NPDES) Permit 2010 Annual Report

On March 29, 2011 the County Board will be asked to authorize the Chairman to sign the attached Annual Report for the 2010 National Pollutant Discharge Elimination System (NPDES) Phase II Permit concerning storm water runoff in the Papio Creek Basin.

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. 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).

Do not hesitate to contact Mark Wayne or myself with any questions.

March 25, 2011

Lisa A. Haire
593-1565

cc: Mark Wayne
Scott Bovick
Brian Hanson
Rebecca Horner
Deb Houghtaling

2010 Outreach Activities

CONSTRUCTION RUNOFF

Sediment and Erosion Control

EVENT

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
02/04/2010	264	Builders, Developers, and Graders	Holiday Inn Convention Center	Workshop for engineers, developers and graders to educate them about NPDES Phase II regulations, Omaha's Grading Permit Program, and sediment and erosion control BMPs.

GOOD HOUSEKEEPING

GOOD HOUSEKEEPING

Good housekeeping Training

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/29/2010	3	City of Omaha Employees	87th & Vernon	Facility Runoff Control & Stormwater Training
09/29/2010		City of Omaha Employees	68th & Q ST	Facility Runoff Control & Stormwater Training

POST-CONSTRUCTION RUNOFF

EVENT

Post-Construction Management

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
10/26/2010	275	Engineers, Developers	Omaha Marriott	IECA's Great Plains Chapter regional workshop for engineers and developers to educate them about post construction ordinance requirements, BMPs, and stormwater management

PUBLIC EDUCATION/OUTREACH

BILLBOARD

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/20/2010		Omaha Area Residents	72nd & Pacific	Digital Billboard, Waitt Outdoor, 9/20-10/15, 10-second spot, 5040 spots/week
10/04/2010		Omaha Area Residents	132nd & L	Digital Billboard, Waitt Outdoor, 10/4-10/10, 10-second spots, 5040 spots/week

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

BROCHURES/PAMPHLETS

Clean Up Omaha

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
02/24/2010	125	Omaha Neighborhood Associations	Rosenblatt Stadium	Annual Clean Up Omaha Kick Off meeting

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/17/2010	20,000	Omaha Area Residents	Various Locations Throughout The City	Production of 20,000 total, \$1,340

Pollution Prevention and Stormwater Awareness

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
01/01/2010	300+	Douglas & Sarpy County Residents	Under the Sink	Various HHW and stormwater related brochures
06/01/2010	300	Omaha Area Residents	Durham Western Heritage Museum	Durham Teacher Night, seven different brochures were handed out

Under the Sink - Automotive

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
08/01/2010	35	Omaha Area Residents	O'Reilly - 3724 N 90th	35 copies
08/01/2010	35	Omaha Area Residents	Autozone - 72nd & Bedford	35 copies
08/01/2010	35	Omaha Area Residents	O'Reilly Auto Parts - 72nd & Pratt	35 copies
08/01/2010	35	Omaha Area Residents	Advance Auto Parts - 3907 N 90th	35 copies
08/01/2010	35	Omaha Area Residents	Ace Hardware - 55th and Center	35 copies
08/01/2010	35	Omaha Area Residents	Autozone - 50th & Center	35 copies
08/01/2010	35	Omaha Area Residents	Advance Autoparts Saddle Creek and Cumming	35 copies

Under the Sink - General

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
08/01/2010	30	Omaha Area Residents	Sherwin Williams - 76th & Cass	30 copies
08/01/2010	30	Omaha Area Residents	Lowe's - 72nd and Dodge	30 copies
08/01/2010	30	Omaha Area Residents	Jane's Health Market, Benson	30 copies
08/01/2010	30	Omaha Area Residents	Benson Community Center	30 copies
08/01/2010	30	Omaha Area Residents	Omaha Public Library - Benson Branch	30 copies
08/01/2010	30	Omaha Area Residents	Kroc Center - 17th and B st	30 copies
08/01/2010	30	Omaha Area Residents	Omaha Public Library - Abraham Branch	30 copies
08/01/2010	30	Omaha Area Residents	Omaha Public Library - Saddlebrook Branch	30 copies
08/01/2010	30	Omaha Area Residents	Home Depot - 72nd and Ames	30 copies

World O! Water

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/19/2010	200	Omaha Area Residents	Papio NRD	Seven different brochures were handed out

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

CLEAN-UP

Neighborhood Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
05/19/2010	12	Omaha Area Residents	Omaha Residences EVENT	Marnott Hotel, Helping Hands, 1 4 hours

General Stormwater Awareness Education

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
06/01/2010	40	Elementary School Students	Durham Western Heritage Museum	Dutham summer camp
08/01/2010	75	Omaha Area Residents	Sam's Club	Sam's Club Booth

Living Green: Benson High School Rain Garden Initiative

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
10/12/2010	60	Benson HS and community	Benson High School	Ribbon cutting and tour of Benson High School's Rain Gardens

MORE Nature Nights

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
03/09/2010	250	Elementary School Students	Gretchen Reeder Elementary	After school event promoting outdoor nature based play
03/23/2010	250	Elementary School Students	Sandoz Elementary	After school event promoting outdoor nature based play.
03/30/2010	250	Elementary School Students	Franklin Elementary	After school event promoting outdoor nature based play
05/06/2010	250	Elementary School Students	Westridge Elementary	After school event promoting outdoor nature based play

Omaha's Green Garden Workshop

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
03/20/2010	20	Omaha Area Residents	MCC - Fort Campus	Sustainable landscaping workshop
03/25/2010	30	Omaha Area Residents	Douglas County Extension Office	Sustainable landscaping workshop
03/27/2010	30	Omaha Area Residents	Douglas County Extension Office	Sustainable landscaping workshop

Pick Up Your Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/26/2010	5,000	Pet Owners	NHS	NHS - Walk for the Animals Information and 1000 pet waste bag dispenser distribution at the Walk for the Animals

Pollution Prevention and Stormwater Awareness

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
03/01/2010	15		KNB Workshop	KOB event
04/17/2010	1300	Omaha Area Residents	Elmwood Park	Booth at Earth Day Omaha event
04/22/2010	200	Gallup Organization employees	Gallup Corporation	Booth at the Gallup Corporation, seven different brochures were handed out
04/22/2010	300	Union Pacific employees	Union Pacific	Earth Day booth at Union Pacific, seven different brochures were handed out

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

EVENT

Spring into Summer Festival

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
05/21/2010	100	Omaha Area Residents	Lake Zornsky	Spring into Summer Event booth

World O! Water

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/19/2010	1500	Omaha Area Residents	Papio NRD	Annual event targeting children and families educating them in a fun atmosphere about water quality and conservation issues.

MASS MAILING

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
08/31/2010	153,000	Omaha Area Residents	Neighborhood News	1/4 Page in Neighborhood News sent directly to 7 Zones
09/06/2010	99	Area Vets and Pet Care Providers	Area Vets and Pet Care Providers	Letter to area vets and pet care providers asking them to display complimentary pet waste brochures, 99 letters, Mailing of Postcards to Dog owners, 61,145
09/29/2010	61,145	Dog Owners in City	62,000 Dog Owners' houses	

NEWSPAPER ARTICLE

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/13/2010	15,000	Omaha Area Residents	Shout Weekly	1/4 Page in Shout Weekly
09/13/2010	19,200	Omaha Area Residents	The Reader	1/2 Page ad in The Reader
09/14/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
09/16/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
09/20/2010	15,000	Omaha Area Residents	Shout Weekly	1/4 Page in Shout Weekly
09/20/2010	19,200	Omaha Area Residents	The Reader	1/2 Page ad in The Reader
09/21/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
09/23/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
09/27/2010	19,200	Omaha Area Residents	The Reader	1/2 Page ad in The Reader
09/27/2010	15,000	Omaha Area Residents	Shout Weekly	1/4 Page in Shout Weekly
09/28/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
09/30/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
10/04/2010	19,200	Omaha Area Residents	The Reader	1/2 Page ad in The Reader
10/04/2010	15,000	Omaha Area Residents	Shout Weekly	1/4 Page in Shout Weekly
10/05/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH
10/07/2010	184,000	Omaha Area Residents	OWH	6X3 ad in OWH

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

POSTER/SIGNAGE

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/17/2010	1,000+	Omaha Area Residents	Various events and theaters	Pull-up Production, 3 total,
10/06/2010	1,000+	Omaha Area Residents	Various Trash Cans	Trash Can Inserts, 50 total,

Pollution Prevention and Stormwater Awareness

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
06/01/2010	50+	Omaha Area Residents	Saddlebrook Branch Library	Display at the Saddlebrook Branch Library
08/01/2010	1,000+	Omaha Area Residents	Tobacco, Phones and More - 72nd & Military	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Leo's Diner	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Jane's Health Market	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Benson Community Center	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Tobacco, Phones and More - 90th & Maple	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Omaha Public Library - Benson Branch	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Tobacco, Phones and More - 72nd & Military	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Omaha Public Library - Abraham Branch	Cigarette Litter Pollution Prevention poster

Pollution Prevention and Stormwater Awareness

08/01/2010	1,000+	Omaha Area Residents	Caffeine Dreams	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Tobacco, Phones and More - 55th & Center	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Tobacco Outlet - 76th & Cass	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Crane Coffee - 60th & Center	Cigarette Litter Pollution Prevention poster
08/01/2010	1,000+	Omaha Area Residents	Leo's Diner	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Jane's Health Market	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Grind Coffeehouse	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Benson Printing	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Benson Community Center	Cigarette Litter Pollution Prevention window cling
08/01/2010	1,000+	Omaha Area Residents	Omaha Public Library - Benson Branch	Cigarette Litter Pollution Prevention window cling

RADIO COMMERCIAL

Don't Litter-cigarette butts

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
05/01/2010	1,000+	Omaha Area Residents	KFAB Radio	(4), 15-second radio commercials, May 8, 15, 22, 29

Household Waste Disposal - OIL

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
06/01/2010	1,000+	Omaha Area Residents	KFAB Radio	(4), 30-second radio commercials, June 5, 12, 19, 26

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

RADIO COMMERCIAL

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/13/2010	1,000+	Omaha Area Residents	Star 104.5 - KSRZ 104.5 FM	9/13-10/4, 15 30 seconds spots/week, total 60 spots
09/13/2010	1,000+	Omaha Area Residents	CD 105.9 - KKCD 105.9 FM	9/13-10/4, 15 30 second spots/week; total 60 spots
09/13/2010	1,000+	Omaha Area Residents	Z-92 - KEZO FM	9/13-10/4, 15 30 second spots per week, total 60 spots

World O! Water

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/01/2010	1,000+	Omaha Area Residents	KFAB Radio	(4), 30-second radio commercials, 2X/day, Sept 17, 18

SPECIAL INTEREST GROUP MEETING

General Stormwater Awareness Education

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
02/01/2010	126	Elementary School Students	Harvey Oaks Elementary School	School presentation to elementary school students
02/01/2010	40	Elementary School Students	King Science Elementary School	School presentation to elementary school students
03/01/2010	56	Kindergardeners	Mountview Elementary School	School presentation to elementary school students
03/05/2010	53	First graders	Mountview Elementary School	School presentation to elementary school students
04/01/2010	162	Elementary School Students	Mountview Elementary	School presentation for Mountview Elementary School students
04/01/2010	51	Elementary School Students	Saddlebrook Elementary	School presentation for Saddlebrook Elementary School students
04/01/2010	19	Elementary School Students	Marris Magnet	School presentation for Marris Magnet School
04/01/2010	25	Elementary School Students	Kellom Elementary	School presentation for Kellom Elementary
05/01/2010	120	Elementary School Students	Kellom Elementary School	School presentation to elementary school students
05/01/2010	70	Elementary School Students	Skinner Magnet School	School presentation to elementary school students
06/01/2010	150	Elementary School Students	Kellom Elementary	2 presentations for elementary school students
06/01/2010	65	Elementary School Students	Edison Elementary	School presentation for elementary school students
06/01/2010	150	Elementary School Students	Central Park Elementary	School presentation for elementary school students
06/01/2010	78	Elementary School Students	King Elementary	School presentation for elementary school students
07/01/2010	25	Omaha Area Residents	Kroc Center	School presentation
07/14/2010	20	Educators	Papio NRD	Presentation to educators as part of the NRD's summer education program

Pollution Prevention and Stormwater Awareness

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
02/01/2010	300	Omaha Area Residents	Lauritzen Gardens	Information booth
03/01/2010	15	Alegent IT Green Group members	Alegent IT Green Group	KOB presentation
03/01/2010	6	Deloitte Touche personnel	Deloitte Touche	KOB presentation
05/01/2010	150	Gifford Farms	Gifford Farms	Family Day at Gifford Farms
08/01/2010	15	Bemis Park NA	Bemis Park	Presentation for the Bemis Park Neighborhood Association

Stormwater Awareness and Water Conservation

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
04/15/2010	40	Boys & Girls Club of Omaha	Coca-Cola Retail Sales Office	Water Conservation Project with Boys & Girls Club

2010 Outreach Activities

PUBLIC EDUCATION/OUTREACH

THEATER ADVERTISEMENTS

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/24/2010	1,000+	Omaha Area Residents	Marcus Theaters	3 Theater Screens, 3 10-second slides, poster case, spot website, 24 theaters, 4 movies/theater, 1 spot pre-movie, lobby digital advertising
09/24/2010	1,000+	Omaha Area Residents	AMC Theaters	

TV COMMERCIAL

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/13/2010	1,000+	Omaha Area Residents	National Geographic	9/13-11/8, 20 30-second spots per week, 180 total
09/13/2010	1,000+	Omaha Area Residents	Discovery	9/13-10/18, 15 30-second spots per week, 90 total
09/13/2010	1,000+	Omaha Area Residents	News4You	9/13-10/18, 15 30-second spots per week, 90 total
09/13/2010	1,000+	Omaha Area Residents	WOWT Channel 6	9/13-11/8, Saturday News, 9 30-second spots tied into Humane Society
09/13/2010	1,000+	Omaha Area Residents	Animal Planet	Pet-tip time 9/13-11/8, 20 30-second spots per week, 180 total,

WEB BASED INFORMATION

Pet Waste

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/14/2010	1,000+	Omaha Area Residents	http://omaha.com	Ad on Omaha World Herald website

PUBLIC INVOLVEMENT/PARTICIPATION

CLEAN-UP

Neighborhood Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
04/01/2010	2	Omaha Area Residents	Omaha Residences	HH clean up
04/02/2010	1	Omaha Area Residents	Omaha Residences	HH clean up
04/03/2010	16	Foundry Community	61st & Maple Street	61st & Maple St - Foundry Community clean up
04/03/2010	2	Omaha Area Residents	Omaha Residences	HH clean up
04/16/2010	7	Omaha Area Residents	Omaha Residences	HH clean up by Goodwill Youth Partnership
04/17/2010	1	Omaha Area Residents	Omaha Residences	HH clean up
04/18/2010	1	Omaha Area Residents	Omaha Residences	HH clean-up
04/23/2010	350	Western Hills Elementary School	Western Hills Elementary School	Clean-up around school and surrounding area
04/24/2010	180	Downtown Omaha Inc.	Downtown Omaha area	Downtown area clean-up by DOI
04/24/2010	6	Centris Federal Credit Union	Omaha Residences	HH clean-up by Centris Federal Credit Union
04/24/2010	10	Centris Federal Credit Union	Omaha Residences	HH clean-up by Centris Federal Credit Union
05/01/2010	5	Omaha Area Residents	President Ford Birth Site	Leavenworth NA, 4 5 hours
05/01/2010	11	Omaha Area Residents	St Francis Assisi Church	St Francis Assisi Church, 1 hours
05/01/2010	20	Omaha Area Residents	Happy Hollow	Girl Scouts cleaned-up for 2 hours

2010 Outreach Activities

PUBLIC INVOLVEMENT/PARTICIPATION

CLEAN-UP

Neighborhood Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
05/02/2010	22	Junior High Students	Field Club	St Matthew Jr High Youth, 1 hour
05/08/2010	5	Omaha Area Residents	President Ford Birth Site	Leavenworth NA, 4.5 hours
05/08/2010	5	Omaha Area Residents	Omaha Residences	HH-Bennett-Kevin Flanagan, 2 hours
05/11/2010	20	College Students	UNO campus	UNO Students, 3 hours
05/15/2010	5	Omaha Area Residents	President Ford Birth Site	Leavenworth NA, 4.5 hours
05/15/2010	7	Omaha Area Residents	34th & Pinkney	Malcolm X Foundation, 2 15 hours
05/19/2010	15	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	7	Omaha Area Residents	35th & Pinkney	Malcolm X Foundation, 2 15 hours
05/19/2010	12	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	12	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	12	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	12	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1.5 hours
05/19/2010	13	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	13	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/19/2010	12	Omaha Area Residents	Omaha Residences	Marriott Hotel, Helping Hands, 1 hour
05/28/2010	7	Omaha Area Residents	36th & Pinkney	Malcolm X Foundation, 2 15 hours
06/11/2010	80	Omaha Area Residents	Gene Leahy Mall	Deliotte Touche, 2 hours
07/18/2010	25	Omaha Area Residents	Riverfront	Gallup, 2.5 hours
08/23/2010	12	Omaha Area Residents	Omaha Residences	Step out & Serve - West Hills Church, 2 hours
08/23/2010	30	Omaha Area Residents	Omaha Residences	Step out & Serve - West Hills Church, 2 hours
08/23/2010	12	Omaha Area Residents	Omaha Residences	Step out & Serve - Faithful Shepherd, 2 hours
08/23/2010	10	Omaha Area Residents	Omaha Residences	Step out & Serve - Beautiful Savior, 2 hours
09/29/2010	7	Omaha Area Residents	Leahy Mall	1 hour
10/21/2010	20	Omaha Area Residents	Leahy Mall	RSM McGladrey
10/23/2010	759	Omaha Youth	Omaha Area	Youth Fall Clean-up

2010 Outreach Activities

PUBLIC INVOLVEMENT/PARTICIPATION

CLEAN-UP

Park Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
03/12/2010	250	7 Days of Service	Fontenelle and Miller Parks	Park clean ups at Fontenelle Park and Miller Park
03/31/2010	80	St. Peter Claver	Omaha Parks	St Peter Claver clean up
04/03/2010	2	Brownell-Talbot	Stolley Prairie	Stolley Prairie clean up by Brownell Talbot
04/10/2010	16	The Foundation Church	Omaha Parks	Park clean-up by the Foundation Church
04/16/2010	42	Oakdale Elementary Second Graders	Trowl Park	Towl Park clean up by Oakdale Elementary Second Graders
04/17/2010	10	Park East Neighborhood Association	Park East Park	Park East Park clean up by Park East Neighborhood Association
04/17/2010	14	Pilgrim Baptist Church	Omaha Parks	Park clean-up by the Pilgrim Baptist Church
04/17/2010	70	Spring Lake Neighborhood Association	Spring Lake Park	Spring Lake clean up by Spring Lake Neighborhood Association
04/19/2010	15	Girls Inc	St James Park	St. James Park clean up by Girls Inc
04/20/2010	10	Morton Junior High	Tomahawk Park	Tomahawk Park clean-up by Morton Jr High
04/21/2010	4	UMB Bank	Towl Park	Towl Park clean-up by UMB Bank
04/22/2010	12	Gap Inc	Benson Park	Benson Park clean-up by Gap Inc.
04/28/2010	3	UMB Bank	Walnut Grove Park	Walnut Grove Park clean-up by UMB Bank
05/01/2010	15	Omaha Area Residents	Fontenelle Park	Beta Phi Beta, 2 hours
05/11/2010	20	College Students	Memorial Park	UNO Students, 3 hours
05/11/2010	4	Omaha Area Residents	Keystone & Pilster Park	Keystone Community Task Force, 3 hours
05/11/2010	20	College Students	Elmwood Park	UNO Students, 3 hours
05/15/2010	30	Omaha Area Residents	Trendwood Park	Northern Natural Gas, 2.15
05/18/2010	30	Omaha Area Residents	Walnut Grove Park	Kiwanis Action Club, 1 hour
05/22/2010	2	Omaha Area Residents	Mockingbird Heights Park	Kendra & Daughter, 1 hour
05/22/2010	12	Omaha Area Residents	Gallagher Park	PayPal, 2 hours
06/12/2010	22	Omaha Area Residents	Turner Park	First Pres Church
06/14/2010	25	Omaha Area Residents	Spring Lake Park	Paypal, 2 hours
06/18/2010	20	Omaha Area Residents	Walnut Park	Paypal, 2 hours
06/19/2010	3	Omaha Area Residents	Cancer Survivor Park	Sachie
06/25/2010	100	Omaha Area Residents	Mandan Park	YMCA, 3 hours
07/17/2010	12	Omaha Area Residents	Elmwood Park	2 hours
07/18/2010	17	Omaha Area Residents	Turner Park	1.5 hours
07/19/2010	18	Omaha Area Residents	Highland Park	Durham Community Builders
08/15/2010	7	Omaha Area Residents	Turner Park	First Presbyterian Church, 1 hour
08/22/2010	25	Omaha Area Residents	Mandan Park	Faithful Shepherd Pres Church, 2.5 hours
08/23/2010	75	Omaha Area Residents	Lake Zorinsky	Step out & Serve - Trinity Lutheran Church, 2 hours
09/18/2010	23	Omaha Area Residents	Spring Lake Park	Spring Lake Neighborhood Association, 3 hours
10/02/2010	12	Omaha Area Residents	Keystone Park	Keystone Neighborhood Association, 1 hour

2010 Outreach Activities

PUBLIC INVOLVEMENT/PARTICIPATION

CLEAN-UP

Park Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
10/19/2010	5	College Students	Fontenelle Park	Creighton University, 2 hours
10/23/2010	10	Omaha Area Residents	Elmwood Park	2 hours

Stream Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
05/22/2010	6	Omaha Area Residents	Elmwood Stream	Trilety Wade, 2 hours

Stream Cleanup Day

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/18/2010	48	Omaha Area Residents	Omaha Area Streams	18 Green Jays from Creighton U, picked 12 bags of litter in 2 hours from Fontenelle Park, 7 people from UP Ties picked up 2 bags of litter at Gene Leahy Mall, 23 people picked up 46 bags of litter at Spring Lake Park, 4 other groups signed up but did not participate (rainy day)

Trail Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
03/28/2010	20	Boy Scout Pack 285	Omaha Trails	Trail clean up by Boy Scout Pack 285
04/06/2010	10	Girl Scout Troop 2633	Omaha Trails	Trail clean up by Girl Scout Troop 2633
04/10/2010	6	Brownie Troop 3487	Omaha Trails	Trail clean up by Brownie Troop 3487
04/17/2010	11	Omaha Sister City Association	Omaha Trails	Trail clean up by Omaha Sister City Association
04/19/2010	31	Troop 42	Omaha Trails	Trail clean up by Troop 42
04/22/2010	13	St Mary's Green Team	Omaha Trails	Trail clean-up by St Mary's Green Team
04/24/2010	4	Boy Scouts	Omaha Trails	Trail clean-up by Den 2
05/01/2010	24	Boy Scouts	Lake Zorinsky Trail	Pack 434, 4 hours
05/03/2010	25	Girl Scouts	Omaha Trails	Girl Scout Troop 3145, 1 hour
05/05/2010	8	Girl Scouts	Omaha Trails	Girl Scout Troop 3422, 2 hours
05/15/2010	9	Omaha Area Residents	Omaha Trails	Alegent Health, 2 hours
05/22/2010	8	Troop 2462	Omaha Trails	Troop 2462, 2 hours
06/05/2010	16	Omaha Area Residents	Omaha Trails	American Red Cross, 1 5 hours
06/16/2010	19	Troop 44713	Omaha Trails	Troop 44713
06/23/2010	12	Troop 2177	Omaha Trails	Troop 2177
06/26/2010	3	Omaha Area Residents	Omaha Trails	Catholic Home school Assn, 3 hours
07/15/2010	32	Boy Scouts	Omaha Trails	Pack 86, 4 5 hours
08/06/2010	8	Omaha Area Residents	Omaha Trails	Owen Education Services, 2.5 hours
08/07/2010	5	Girl Scouts	Omaha Trails	Girl Scout Troop 2421
09/06/2010	11	Boy Scouts	Omaha Trails	Den 7, 2 hours
09/09/2010	30	Troops 3915 & 2163	Omaha Trails	Troops 3915 & 2163
09/18/2010	16	Scout Troop	Omaha Trails	Scout Troop, 1.5 hours

2010 Outreach Activities

PUBLIC INVOLVEMENT/PARTICIPATION

CLEAN-UP

Trail Clean-Up

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
09/18/2010	10	Omaha Area Residents	Omaha Trails	UNMC, 2 hours
09/20/2010	40	Boy Scouts	Omaha Trails	Pack 3, 2 hours
09/21/2010	11	Girl Scouts	Omaha Trails	GIT, 3 5 hours
09/26/2010	12	Girl Scouts	Omaha Trails	GS Troop 43576, 2.5 hours
09/27/2010	12	Boy Scouts	Omaha Trails	Den 4, 2 hours
09/28/2010	11	Omaha Area Residents	Omaha Trails	Elkhorn Garden Club, 2 5 hours
10/08/2010	10	Omaha Area Residents	Omaha Trails	MeGroup, 2 5 hours

DRAIN MARKING

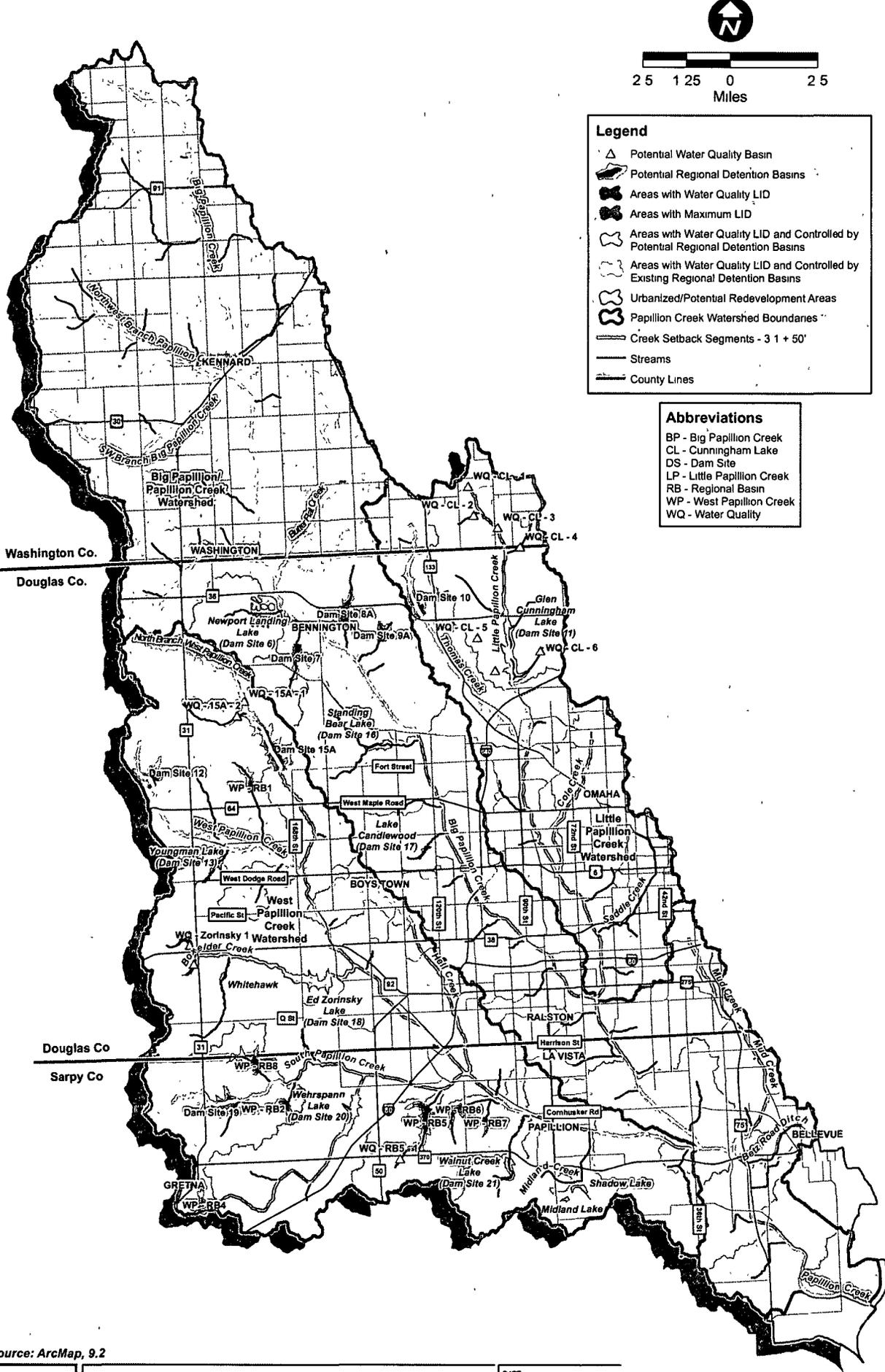
Storm Drain Markers

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
06/04/2010	1	Omaha Area Residents	Omaha Streets & Inlets	10 hours
08/01/2010	1	Omaha Area Residents	Omaha Streets & Inlets	Cheryl Ziezinger, 10 hours
08/09/2010	21	Boy Scouts	Omaha Streets & Inlets	Pack 434, 3 hours
08/21/2010	13	Omaha Area Residents	Omaha Streets & Inlets	Reece Ristau, 8 hours
08/29/2010	20	Troop 3328	Omaha Streets & Inlets	Troop 3328, 5 hours
09/03/2010	1	Omaha Area Residents	Omaha Streets & Inlets	Janis, 5 hours
09/09/2010	3	Omaha Area Residents	Omaha Streets & Inlets	Debra, 4 hours
09/21/2010	1	Omaha Area Residents	Omaha Streets & Inlets	Tennant, 5 hours
09/30/2010	2	Omaha Area Residents	Omaha Streets & Inlets	Roloff Construction, 2 hours
10/01/2010	1	Omaha Area Residents	Omaha Streets & Inlets	Hahn, 10 hours
10/01/2010	1	Omaha Area Residents	Omaha Streets & Inlets	Digmans, 15 hours

SPECIAL INTEREST GROUP MEETING

Watershed Policy

<u>DATE</u>	<u>COUNT</u>	<u>TARGET MARKET</u>	<u>LOCATION</u>	<u>COMMENTS</u>
01/28/2010	20	Partnership Members	Papio NRD	Partnership Meeting
02/25/2010	28	Partnership Members	Papio NRD	Partnership Meeting
03/25/2010	17	Partnership Members	Papio NRD	Partnership Meeting
04/22/2010	22	Partnership Members	Papio NRD	Partnership Meeting
05/27/2010	23	Partnership Members	Papio NRD	Partnership Meeting
07/22/2010	19	Partnership Members	Papio NRD	Partnership Meeting
08/26/2010	18	Partnership Members	Papio NRD	Partnership Meeting
09/23/2010	17	Partnership Members	Papio NRD	Partnership Meeting
11/18/2010		Partnership Members	Papio NRD	Partnership Meeting



Source: ArcMap, 9.2

	Watershed Management Plan Papillon Creek Watershed	DATE May 2009
	Papillon Creek Watershed Partnership Papillon Creek Watershed Plan - Stage IV Papillon Creek Watershed Partnership	FIGURE 1

B



Papillion Creek Watershed Implementation Plan (Years 2011-2013)

Program Projects Components

Water Quality

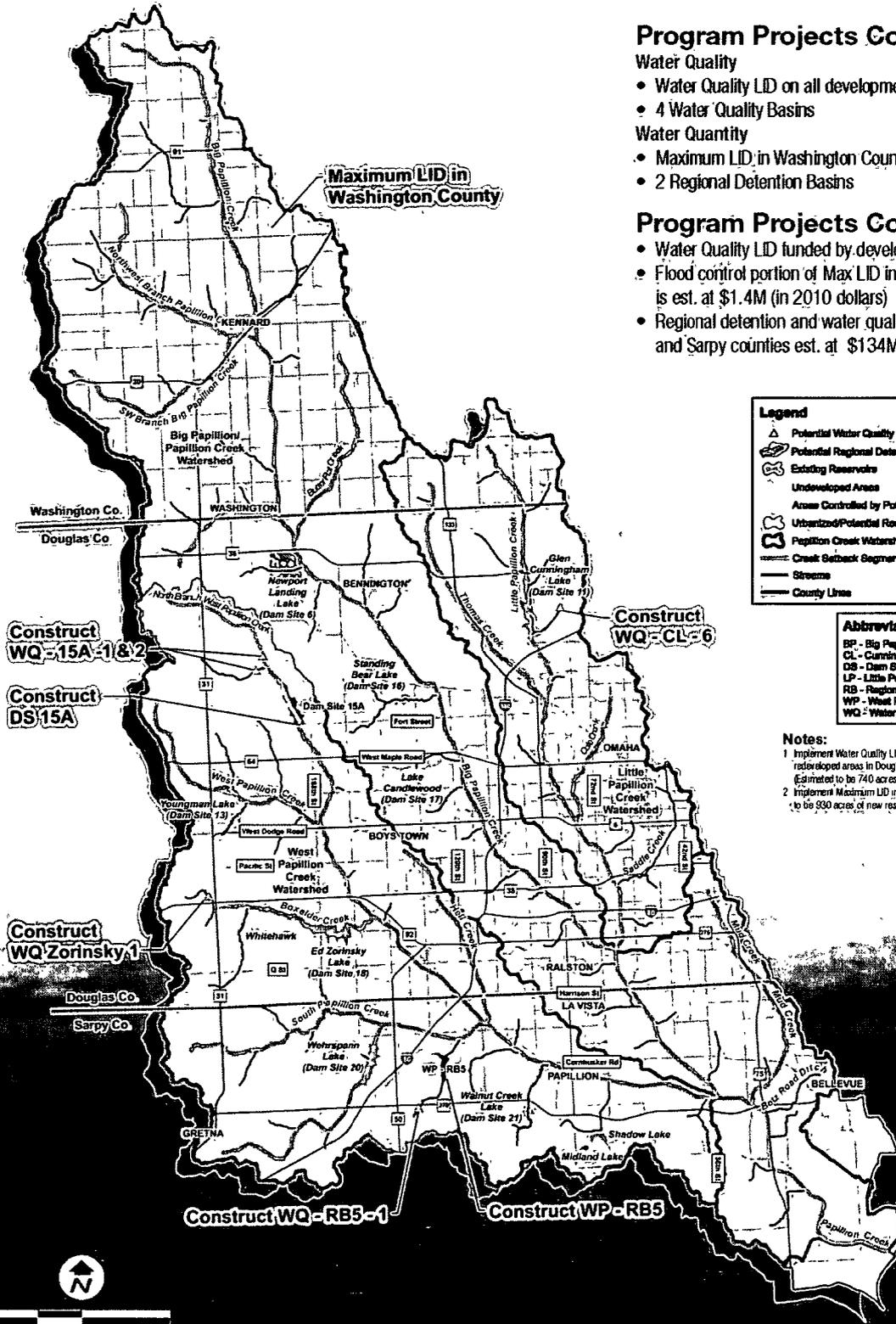
- Water Quality LID on all development
- 4 Water Quality Basins

Water Quantity

- Maximum LID in Washington County
- 2 Regional Detention Basins

Program Projects Costs

- Water Quality LID funded by development
- Flood control portion of Max LID in Washington County is est. at \$1.4M (in 2010 dollars)
- Regional detention and water quality basins in Douglas and Sarpy counties est. at \$134M (in 2010 dollars)



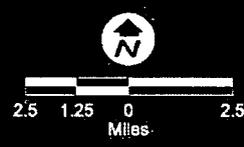
Legend

- △ Potential Water Quality Basin
- ▭ Potential Regional Detention Basins
- Existing Reservoirs
- Undeveloped Areas
- ▭ Areas Controlled by Potential Regional Detention Basins
- ▭ Urbanized/Potential Redevelopment Areas
- ▭ Papillion Creek Watershed Boundaries
- Creek Setback Segments - 3' + 50'
- Streams
- County Lines

Abbreviations

- BP - Big Papillion Creek
- CL - Cunningham Lake
- DS - Dam Site
- LP - Little Papillion Creek
- RB - Regional Basin
- WP - West Papillion Creek
- WQ - Water Quality

- Notes:**
1. Implement Water Quality LID in all new or significantly redeveloped areas in Douglas and Sarpy Counties (Estimated to be 740 acres).
 2. Implement Maximum LID in Washington County (Estimated to be 930 acres of new residential estates development).



PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #1: WATER QUALITY IMPROVEMENT

ISSUE: Waters of the Papillion Creek Watershed are impaired.

“ROOT” POLICY: Improve water quality from all contributing sources, including but not limited to, agricultural activities, urban stormwater, and combined sewer overflows, such that waters of the Papillion Creek Watershed and other local watersheds can meet applicable water quality standards and community-based goals, where feasible.

SUB-POLICIES:

- 1) Water Quality LID shall be required on all new developments and significant redevelopments.
- 2) Protect surface and groundwater resources from soil erosion (sheet and rill, wind erosion, gully and stream bank erosion), sedimentation, nutrient and chemical contamination. Buffer strips and riparian corridors should be established along all stream segments.
- 3) Preserve and protect wetland areas to the fullest extent possible to maintain natural hydrology and improve water quality by minimizing the downstream transport of sediment, nutrients, bacteria, etc borne by surface water runoff. Reestablishment of previously existing wetlands and the creation of new wetlands should be promoted. Any impacted wetlands shall be mitigated at a 3:1 ratio.
- 4) Support NDEQ in an accelerated TMDL development process that addresses potential pollutant sources in a fair and reasonable manner based on sound technical data and scientific approach.
- 5) Implement Best Management Practices (BMPs) that reduce both urban and rural pollution sources, maintain or restore designated beneficial uses of streams and surface water impoundments, minimize soil loss, and provide sustainable production levels. Water quality basins shall be located in general conformance with an adopted Papillion Creek Watershed Management Plan.

REFERENCE INFORMATION

DEFINITIONS:

- 1) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc.
- 2) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use conditions, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 3) Best Management Practice (BMP). “A technique, measure or structural control that is used for a given set of conditions to manage the quantity and improve the quality of

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

stormwater runoff in the most cost-effective manner.” *[Source: U.S. Environmental Protection Agency (EPA)]*

- 4) Total Maximum Daily Load (TMDL). A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. Water quality standards are set by States, Territories, and Tribes. They identify the uses for each waterbody, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The calculation must include a margin of safety to ensure that the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs, and for Nebraska such standards and programs are administered by the Nebraska Department of Environmental Quality *[Source: EPA and Nebraska Surface Water Quality Standards, Title 117]*.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #2: PEAK FLOW REDUCTION

ISSUE

Urbanization within the Papillion Creek Watershed has and will continue to increase runoff leading to more flooding problems and diminished water quality.

ROOT POLICY

Maintain or reduce stormwater peak discharge during development and after full build-out land use conditions from that which existed under baseline land use conditions.

SUB-POLICY

- 1) Regional stormwater detention facilities and other structural and non-structural BMPs shall be located in general conformance with an adopted Papillion Creek Watershed Management Plan and shall be coordinated with other related master planning efforts for parks, streets, water, sewer, etc.
- 2) Maximum LID shall be required to reduce peak discharge rates on all new developments and significant redevelopments as identified in the Papillion Creek Watershed Management Plan.
- 3) All significant redevelopment shall maintain peak discharge rates during the 2, 10, and 100-year storm event under baseline land use conditions.

REFERENCE INFORMATION

DEFINITIONS

- 1) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc
- 2) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use condition, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 3) Maximum LID. A level of LID using strategies, including water quality LID and on-site detention, designed not to exceed peak discharge rates of more than 0.2 cfs/acre during the 2-year storm event or 0.5 cfs/acre during the 100-year storm event based on the contributing drainage from each site, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
- 4) Peak Discharge or Peak Flow. The maximum instantaneous surface water discharge rate resulting from a design storm frequency event for a particular hydrologic and hydraulic analysis, as defined in the Omaha Regional Stormwater Design Manual. The measurement of the peak discharge shall be at the lower-most drainage outlet(s) from a new development or significant redevelopment.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

- 5) Regional Stormwater Detention Facilities. Those facilities generally serving a drainage catchment area of 500 acres or more in size.
- 6) Baseline Land Use Conditions. That which existed for Year 2001 for Big and Little Papillion Creeks and its tributaries (excluding West Papillion Creek) and for Year 2004 for West Papillion Creek and its tributaries.
- 7) Full Build-Out Land Use Conditions. Fully platted developable land use conditions for the combined portions of the Papillion Creek Watershed that lie in Douglas and Sarpy Counties that are assumed to occur by the Year 2040, plus the projected 2040 land uses within the Watershed in Washington County, or as may be redefined through periodic updates to the respective County comprehensive plans

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #3: LANDSCAPE PRESERVATION, RESTORATION, AND CONSERVATION

ISSUE: Natural areas are diminishing, and there is a need to be proactive and integrate efforts directed toward providing additional landscape and green space areas with enhanced stormwater management through restoration and conservation of stream corridors, wetlands, and other natural vegetation.

“ROOT” POLICY: Utilize landscape preservation, restoration, and conservation techniques to meet the multi-purpose objectives of enhanced aesthetics, quality of life, recreational and educational opportunities, pollutant reduction, and overall stormwater management.

SUB-POLICIES:

- 1) Incorporate stormwater management strategies as a part of landscape preservation, restoration, and conservation efforts where technically feasible.
- 2) Define natural resources for the purpose of preservation, restoration, mitigation, and/or enhancement.
- 3) For new development or significant redevelopment, provide a creek setback of 3:1 plus 50 feet along all streams as identified in the Papillion Creek Watershed Management Plan and a creek setback of 3:1 plus 20 feet for all other watercourses.
- 4) All landscape preservation features as required in this policy or other policies, including all stormwater and LID strategies, creek setbacks, existing or mitigated wetlands, etc., identified in new or significant redevelopment shall be placed into an out lot or within public right of way or otherwise approved easement.

REFERENCE INFORMATION

DEFINITIONS

- 1) Creek Setback. See Figure 1 below and related definitions in Policy Group #5. A setback area equal to three (3) times the channel depth plus fifty (50) feet (3:1 plus 50 feet) from the edge of low water on both sides of channel shall be required for any above or below ground structure exclusive of bank stabilization structures, poles or sign structures adjacent to any watercourse defined within the watershed drainage plan. Grading, stockpiling, and other construction activities are not allowed within the setback area and the setback area must be protected with adequate erosion controls or other Best Management Practices, (BMPs). The outer 30 feet adjacent to the creek setback limits may be credited toward meeting the landscaping buffer and pervious coverage requirements.

A property can be exempt from the creek setback requirement upon a showing by a licensed professional engineer or licensed landscape architect that adequate bank stabilization structures or slope protection will be installed in the construction of said structure, having an estimated useful life equal to that of the structure, which will provide adequate erosion control conditions coupled with adequate lateral support so that no portion of said structure adjacent to the stream will be endangered by erosion.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

or lack of lateral support. In the event that the structure is adjacent to any stream which has been channelized or otherwise improved by any agency of government, then such certificate providing an exception to the creek setback requirement may take the form of a certification as to the adequacy and protection of the improvements installed by such governmental agency. If such exemption is granted, applicable rights-of-way must be provided and a minimum 20 foot corridor adjacent thereto.

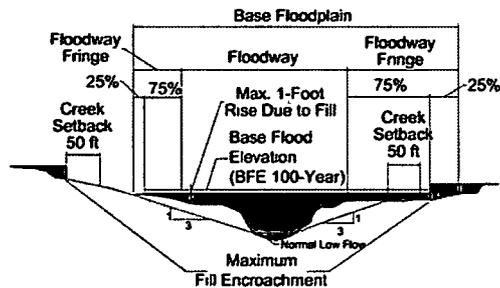


Figure 1 – Floodway Fringe Encroachment and Creek Setback Schematic

DEFINITIONS

- 1) **Base Flood.** The flood having a one percent chance of being equaled or exceeded in magnitude in any given year (commonly called a 100-year flood). *[Adapted from Chapter 31 of Nebraska Statutes]*
- 2) **Floodway.** The channel of a watercourse and the adjacent land areas that are necessary to be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. *[Adapted from Chapter 31 of Nebraska Statutes].* The Federal Emergency Management Agency (FEMA) provides further clarification that a floodway is the central portion of a riverine floodplain needed to carry the deeper, faster moving water.
- 3) **Floodway Fringe** That portion of the floodplain of the base flood, which is outside of the floodway. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 4) **Floodplain.** The area adjoining a watercourse, which has been or may be covered by flood waters. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 5) **Watercourse.** Any depression two feet or more below the surrounding land which serves to give direction to a current of water at least nine months of the year and which has a bed and well-defined banks. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 6) **Low Chord Elevation.** The bottom-most face elevation of horizontal support girders or similar superstructure that supports a bridge deck.
- 7) **Updated Flood Hazard Maps.** The remapping of flooding sources within the Papillion Creek Watershed where Digital Flood Insurance Rate Maps (DFIRMs) are based on 2004 or more recent conditions hydrology and full-build out conditions hydrology. West Papillion Creek and its tributaries are currently under remapping and will become regulatory in 2009. Updating flood hazard maps for Big Papillion Creek and Little Papillion Creek are planned to be completed in the future.
- 8) **New Development.** New development shall be defined as that which is undertaken to any undeveloped parcel that existed at the time of implementation of this policy.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #4: EROSION AND SEDIMENT CONTROL AND OTHER BMPs

ISSUE: Sound erosion and sediment control design and enforcement practices are needed in order to protect valuable land resources, stream and other drainage corridors, and surface water impoundments and for the parallel purpose of meeting applicable Nebraska Department of Environmental Quality regulatory requirements for construction activities that disturb greater than one acre.

“ROOT” POLICY: Promote uniform erosion and sediment control measures by implementing consistent rules for regulatory compliance pursuant to State and Federal requirements, including the adoption of the Omaha Regional Stormwater Design Manual. .

SUB-POLICIES:

- 1) Construction site stormwater management controls shall include both erosion and sediment control measures.
- 2) The design and implementation of post-construction, permanent erosion and sediment controls shall be considered in conjunction with meeting the intent of other Stormwater Management Policies.
- 3) Sediment storage shall be incorporated with all regional detention facilities where technically feasible.

REFERENCE INFORMATION

DEFINITIONS

- 1) Erosion Control. Land and stormwater management practices that minimize soil loss caused by surface water movement.
- 2) Sediment Control Land and stormwater management practices that minimize the transport and deposition of sediment onto adjacent properties and into receiving streams and surface water impoundments.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #5: FLOODPLAIN MANAGEMENT

ISSUE: Continued and anticipated development within the Papillion Creek Watershed mandates that holistic floodplain management be implemented and maintained in order to protect its citizens, property, and natural resources.

“ROOT” POLICY: Participate in the FEMA National Flood Insurance Program, update FEMA floodplain mapping throughout the Papillion Creek Watershed, and enforce floodplain regulations to full build-out, base flood elevations

SUB-POLICIES:

- 1) Floodplain management coordination among all jurisdictions within the Papillion Creek Watershed and the Papio-Missouri River Natural Resources District (P-MRNRD) is required.
- 2) Flood Insurance studies and mapping throughout the Papillion Creek Watershed shall be updated using current and full-build out conditions hydrology.
- 3) Encroachments for new developments or significant redevelopments within floodway fringes shall not cause any increase greater than one (1.00) foot in the height of the full build-out base flood elevation using best available data.
- 4) Filling of the floodway fringe associated with new development within the Papillion Creek System shall be limited to 25% of the floodway fringe in the floodplain development application project area, unless approved mitigation measures are implemented. The remaining 75% of floodway fringe within the project area shall be designated as a floodway overlay zone. For redevelopment, these provisions may be modified or waived in whole or in part by the local jurisdiction.
- 5) The low chord elevation for bridges crossing all watercourses within FEMA designated floodplains shall be a minimum of one (1) foot above the base flood elevation for full-build out conditions hydrology using best available data.
- 6) The lowest first floor elevation of buildings associated with new development or significant redevelopment that are upstream of and contiguous to regional dams within the Papillion Creek Watershed shall be a minimum of one (1) foot above the 500-year flood pool elevation.

REFERENCE INFORMATION

DEFINITIONS (See Figure 1 below and related definitions in Policy Group #3: Landscape Preservation, Restoration, and Conservation).

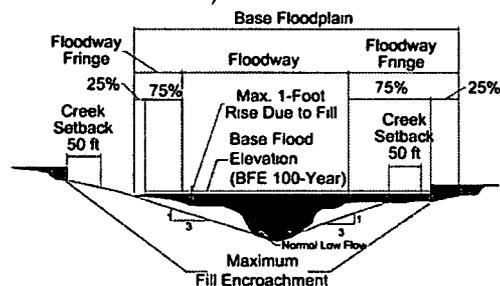


Figure 1 – Floodway Fringe Encroachment and Creek Setback Schematic

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

- 1) Base Flood. The flood having a one percent chance of being equaled or exceeded in magnitude in any given year (commonly called a 100-year flood). *[Adapted from Chapter 31 of Nebraska Statutes]*
- 2) Floodway. The channel of a watercourse and the adjacent land areas that are necessary to be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. *[Adapted from Chapter 31 of Nebraska Statutes]*. The Federal Emergency Management Agency (FEMA) provides further clarification that a floodway is the central portion of a riverine floodplain needed to carry the deeper, faster moving water.
- 3) Floodway Fringe. That portion of the floodplain of the base flood, which is outside of the floodway. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 4) Floodplain. The area adjoining a watercourse, which has been or may be covered by flood waters. *[Adapted from Chapter 31 of Nebraska Statutes]*
- 5) Watercourse. Any depression two feet or more below the surrounding land which serves to give direction to a current of water at least nine months of the year and which has a bed and well-defined banks *[Adapted from Chapter 31 of Nebraska Statutes]*
- 6) Low Chord Elevation. The bottom-most face elevation of horizontal support girders or similar superstructure that supports a bridge deck.
- 7) Updated Flood Hazard Maps. The remapping of flooding sources within the Papillion Creek Watershed where Digital Flood Insurance Rate Maps (DFIRMs) are based on 2004 or more recent conditions hydrology and full-build out conditions hydrology. West Papillion Creek and its tributaries are currently under remapping and will become regulatory in 2009. Updating flood hazard maps for Big Papillion Creek and Little Papillion Creek are planned to be completed in the future.
- 8) New Development. New development shall be defined as that which is undertaken to any undeveloped parcel that existed at the time of implementation of this policy

BASIC FEMA REQUIREMENTS

On March 1, 2003, FEMA became part of the U.S. Department of Homeland Security (DHS). In order for a community to participate in the FEMA National Flood Insurance Program, it must first define base flood elevations and adopt a floodway for all its major streams and tributaries. Once a community adopts its floodway, the requirements of *44 CFR 60.3(d)* must be fulfilled. The key concern is that each project in the floodway must receive an encroachment review; i.e., an analysis to determine if the project will increase flood heights or cause increased flooding downstream. Note that the FEMA regulations call for preventing any increase in flood heights. Projects, such as filling, grading or construction of a new building, must be reviewed to determine whether they will obstruct flood flows and cause an increase in flood heights upstream or adjacent to the project site. Further, projects, such as grading, large excavations, channel improvements, and bridge and culvert replacements should also be reviewed to determine whether they will remove an existing obstruction, resulting in increases in flood flows downstream *[Adapted from Federal Emergency Management Agency guidance]*

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

POLICY GROUP #6: STORMWATER MANAGEMENT FINANCING

ISSUE: Regulatory requirements for stormwater management and implementation of Stormwater Management Policies intended to accommodate new development and significant redevelopment will impose large financial demands for capital and operation and maintenance beyond existing funding resources.

“ROOT” POLICY: Dedicated, sustainable funding mechanisms shall be developed and implemented to meet capital and operation and maintenance obligations needed to implement NPDES Stormwater Management Plans, Stormwater Management Policies, and the Papillion Creek Watershed Management Plan.

SUB-POLICIES:

- 1) All new development and significant redevelopment will be required to fund the planning, implementation, and operation and maintenance of water quality LID.
- 2) A Watershed Management Fee system shall be established to equitably distribute the capital cost of implementing the Papillion Creek Watershed Management Plan among new development or significant redevelopment. Such Watershed Management Fee shall only apply to new development or significant redevelopment within the Papillion Creek Watershed and the initial framework shall consist of the following provisions
 - a. Collection of fees and public funding shall be earmarked specifically for the construction of projects called for in the Papillion Creek Watershed Management Plan, including Maximum LID costs such as on site detention, regional detention basins, and water quality basins.
 - b. Multiple fee classifications shall be established which fairly and equitably distribute the cost of these projects among all undeveloped areas within the Papillion Creek Watershed.
 - c. Watershed Management Fees (private) are intended to account for approximately one-third (1/3) of required capital funds and shall be paid to the applicable local zoning jurisdiction with building permit applications.
 - d. Watershed Management Fee revenues shall be transferred from the applicable local zoning jurisdiction to a special P-MRNRD construction account via inter-local agreements.
 - e. The P-MRNRD (public) costs are intended to account for approximately two-thirds (2/3) of required capital funds, including the cost of obtaining necessary land rights, except as further provided below; and the P-MRNRD shall be responsible for constructing regional detention structures and water quality basins using pooled accumulated funds.
 - f. The P-MRNRD will seek general obligation bonding authority from the Nebraska Legislature to provide necessary construction scheduling flexibility.
 - g. Financing for Papillion Creek Watershed Management Plan projects may require public-private partnership agreements between the P-MRNRD and developers/S&IDs on a case-by-case basis.
 - h. On approximately three (3)-year intervals, the Papillion Creek Watershed Management Plan and Watershed Management Fee framework, rates, and construction priority schedule shall be reviewed with respect to availability of

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

needed funds and rate of development within the Papillion Creek Watershed by the parties involved (local zoning jurisdictions, P-MRNRD, and the development community). Subsequent changes thereto shall be formally approved by the respective local zoning jurisdictions and the P-MRNRD.

- 3) A Stormwater Utility Fee System shall be established to equitably distribute the costs for ongoing operation and maintenance of all stormwater BMPs and infrastructure among all existing property owners within NPDES Phase I or II municipal jurisdictions.
 - a. NPDES Phase I and II cities and counties should actively seek legislation from the Nebraska Legislature to allow for the establishment of an equitable stormwater utility fee.
 - b. The initial framework for the Stormwater Utility Fee System should consist of the following provisions provided Nebraska statutes allow for such a fee:
 - i. A county or city shall establish by resolution user charges to be assessed against all real property within its zoning jurisdiction and may issue revenue bonds or refunding bonds payable from the proceeds of such charges, all upon terms as the county board or city council determines are reasonable.
 - ii. Such charges shall be designed to be proportionate to the stormwater runoff contributed from such real property and based on sound engineering principles.
 - iii. Such charges should provide credits or adjustments for stormwater quantity and quality BMPs utilized in order to encourage wise conservation and management of stormwater on each property.
 - iv. Such charges shall be collected in a manner that the county or city determines as appropriate and shall not be determined to be special benefit assessments.
 - v. A county or city shall establish a system for exemption from the charges for the property of the state and its governmental subdivisions to the extent that it is being used for a public purpose. The local elected body shall also provide an appeals process for aggrieved parties
 - vi. A county shall not impose these charges against real property that is being charges user charges by a city.
 - vii. Any funds raised from a Stormwater Utility Fee shall be placed in a separate fund and shall not be used for any purpose other than those specified.

REFERENCE INFORMATION

DEFINITIONS

- 1) Stormwater Management Policies. Stormwater management policies developed by the Technical Workgroup and Policy Workgroup that were commissioned by the Papillion Creek Watershed Partnership (PCWP) subsequent to the "Green, Clean, and Safe" initiatives developed through the "Watershed by Design" public forums conducted in 2004 and 2005 and subsequently revised by the PCWP in 2009. The

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

following policy groups contain “root” policies and sub-policies for stormwater management that have been developed in addition to the Stormwater Management Financing Policy Group herein:

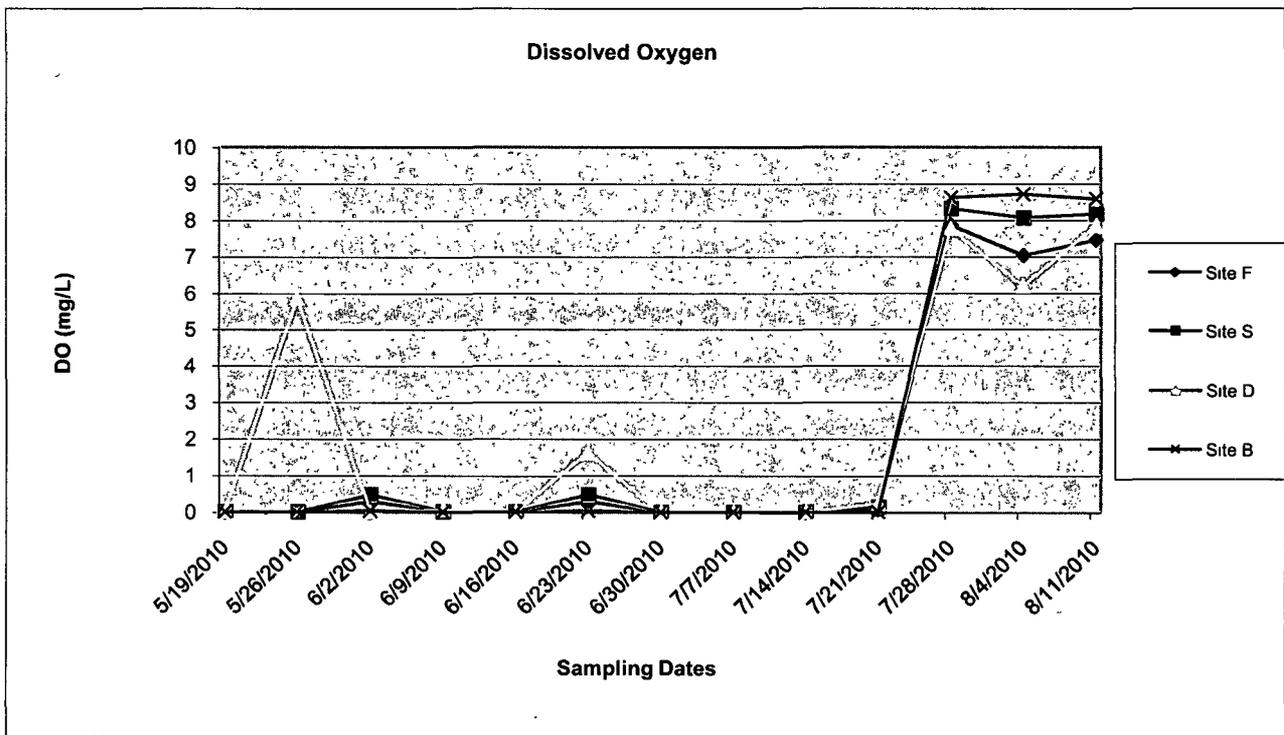
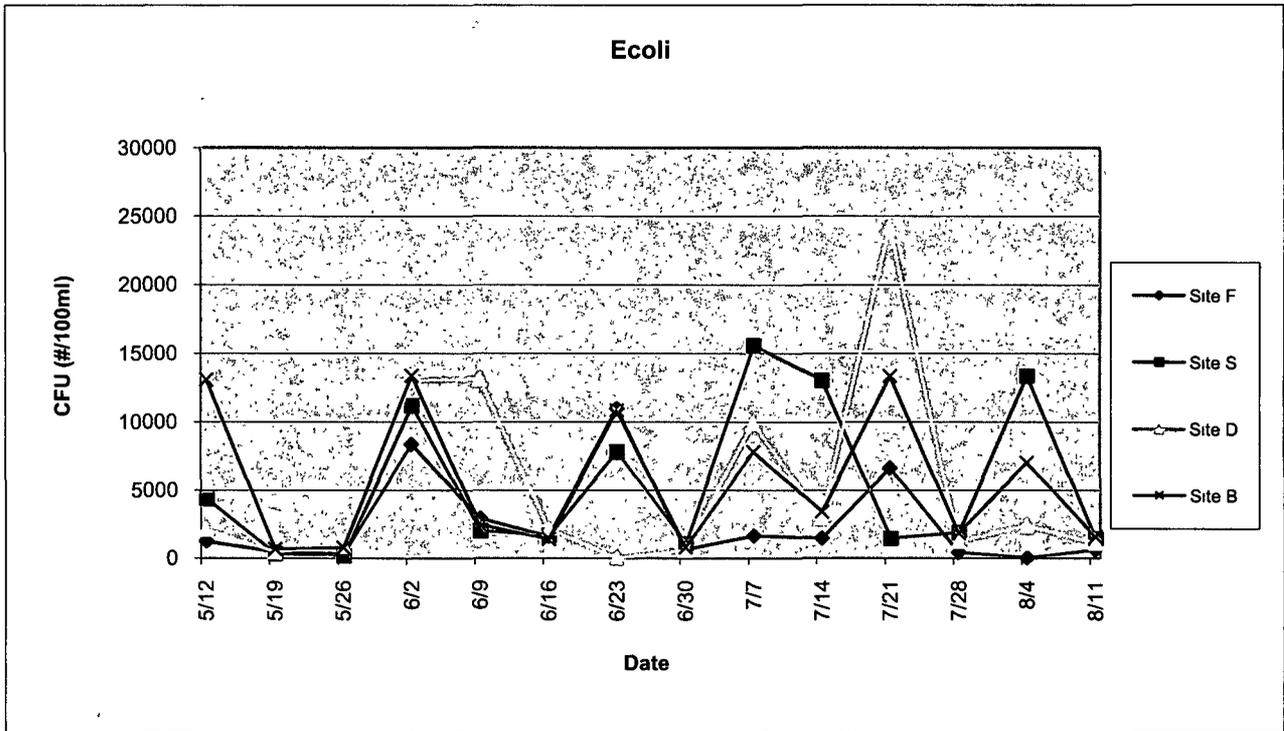
- Policy Group #1 – Water Quality Improvement
 - Policy Group #2 – Peak Flow Reduction
 - Policy Group #3 – Landscape Preservation, Restoration, and Conservation
 - Policy Group #4 – Erosion and Sediment Control and Other BMPs
 - Policy Group #5 – Floodplain Management
- 2) Stormwater Management Plan (SWMP). A SWMP is a required part of the NPDES Phase II Stormwater Permits issued to many of the Omaha metropolitan area Papillion Creek Watershed Partnership (PCWP) members. Development of Stormwater Management Policies is an integral part of the SWMP, and such policies are to be adopted by respective PCWP partners.
 - 3) Comprehensive Development Plans. Existing plans developed by local jurisdictions that serve as the basis for zoning and other land use regulations and ordinances. The Stormwater Management Policies are to be incorporated into the respective Comprehensive Development Plans
 - 4) Policy Implementation. The implementation of the policies will be through the development of ordinances and regulations, in years 3 through 5 of the NPDES permit cycle; that is, by the year 2009. Ordinances and regulations are intended to be consistent for, and adopted by, the respective PCWP members. Such ordinances and regulations shall need to be consistent with the Comprehensive Development Plans of the respective PCWP members.
 - 5) Low-Impact Development (LID). A land development and management approach whereby stormwater runoff is managed using design techniques that promote infiltration, filtration, storage, evaporation, and temporary detention close to its source. Management of such stormwater runoff sources may include open space, rooftops, streetscapes, parking lots, sidewalks, medians, etc
 - 6) Water Quality LID. A level of LID using strategies designed to provide for water quality control of the first ½ inch of stormwater runoff generated from each new development or significant redevelopment and to maintain the peak discharge rates during the 2-year storm event to baseline land use conditions, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
 - 7) Maximum LID. A level of LID using strategies, including water quality LID and on-site detention, designed not to exceed peak discharge rates of more than 0.2 cfs/acre during the 2-year storm event or 0.5 cfs/acre during the 100-year storm event based on the contributing drainage from each site, measured at every drainage (stormwater discharge) outlet from the new development or significant redevelopment.
 - 8) Baseline Land Use Conditions. That which existed for Year 2001 for Big and Little Papillion Creeks and its tributaries (excluding West Papillion Creek) and for Year 2004 for West Papillion Creek and its tributaries. That which existed in 2007 for all areas not within the Papillion Creek Watershed.

PAPILLION CREEK WATERSHED STORMWATER MANAGEMENT POLICIES

BASIS FOR STORMWATER MANAGEMENT FINANCING ISSUE

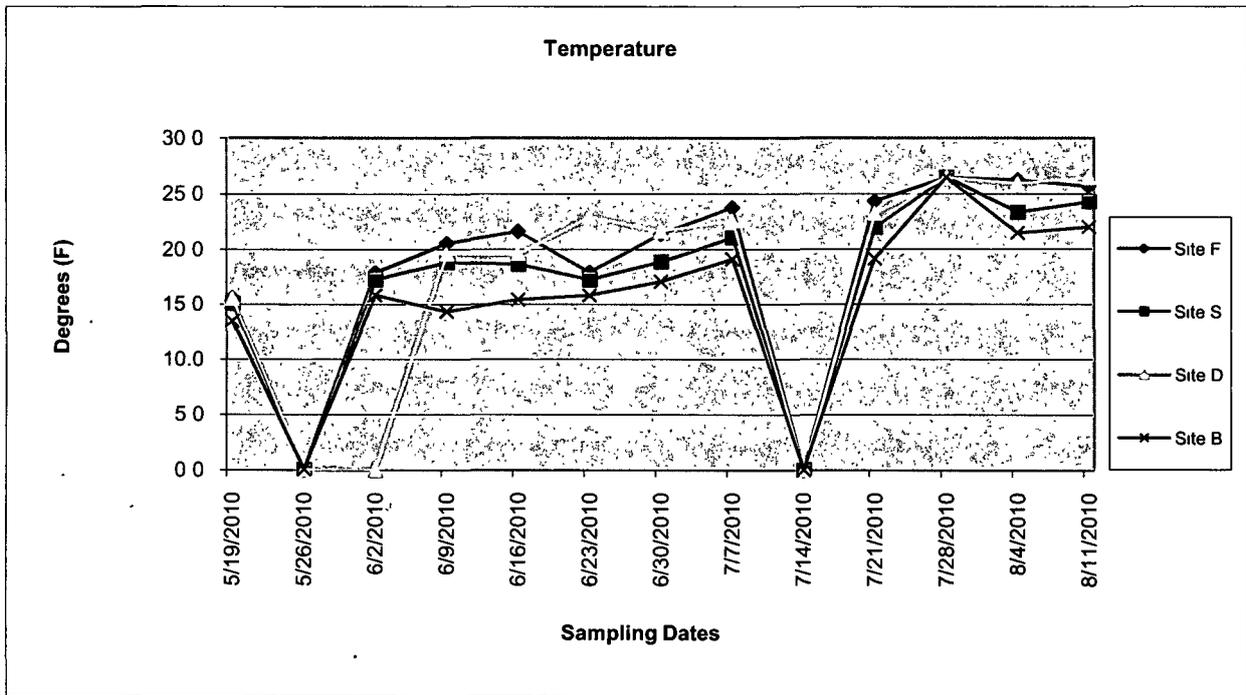
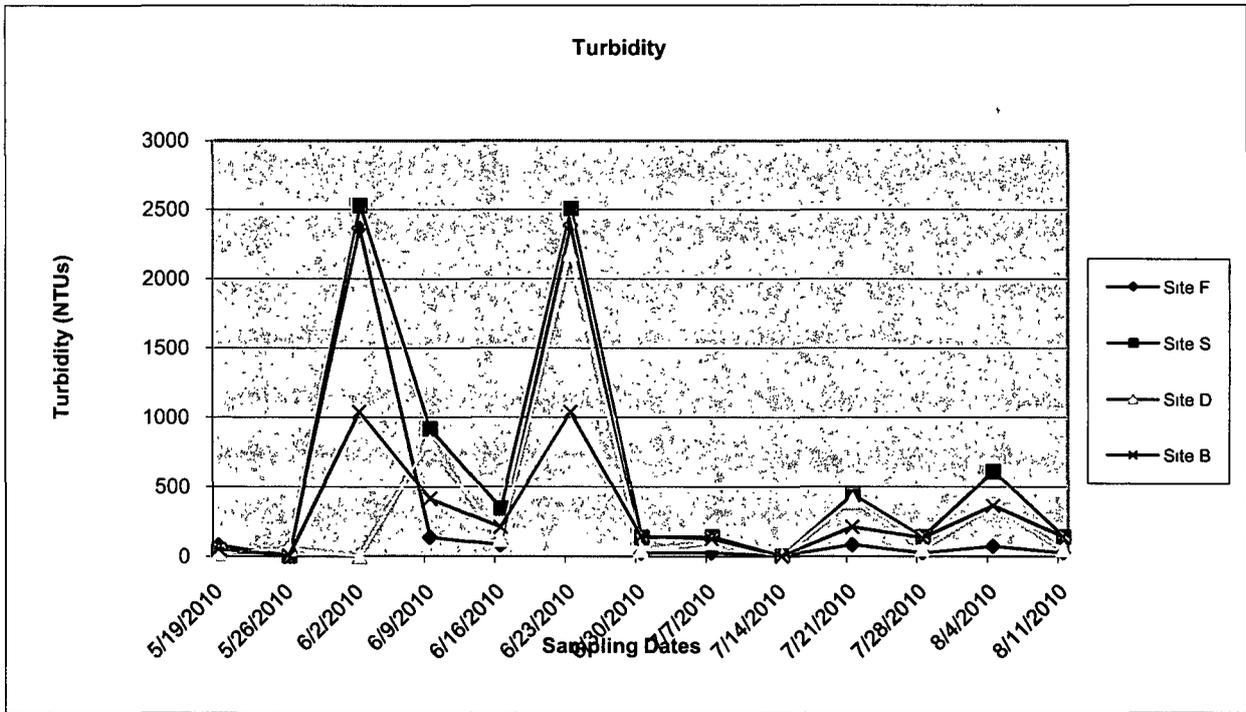
- 1) Time is of the essence for policy development and implementation:
 - a) Under the existing Phase II Stormwater Permits issued by the Nebraska Department of Environmental Quality, permittees must develop strategies, which include a combination of structural and/or non-structural best management practices and incorporate them into existing Comprehensive Development Plans by the end of 2009
 - b) The S&ID platting process is typically several years ahead of full occupation of an S&ID. Therefore, careful pre-emptive planning and program implementation is necessary in order to construct regional stormwater detention and water quality basin improvements in a timely manner to meet the purposes intended and to avoid conflicts from land use encroachments from advancing development.
- 2) Financing to meet capital and O&M obligations for stormwater management projects requires a comprehensive, uniformly applied approach and not a project-by-project approach.

Project Number	Project Name	Address	Status	Date Submitted	Reason for Action	Action Recommended	City Inspector	Outcome
OMA20090929-870-2	Ambassador Omaha Pediatric Addition	1540 N 72nd Street Omaha NE 68114	Complete	3/15/2010	Failure to submit reports in timely manner	Letter of Warning	Carol Sorensen	Request for Voluntary Compliance
OMA20090729-999-2	Northeast Joint Use Facility Sewer Maintenance Bld	1818 Jaynes Street Omaha NE 68110	Complete	3/16/2010	Late and Missing Reports	Notice of Violation	Carol Sorensen	Request for Voluntary Compliance
OMA00000003-115-1	Fire Ridge Estates	195 St and Pacific St Omaha NE 68022	Complete	5/25/2010	Failure to bring lot level deficiencies into compliance	Letter of Warning	Carol Sorensen	LOW Issued
OMA20090922-1019-2	80 Dodge Hotel Venture Grading	225 N 80th Street Omaha NE 68114	Complete	6/19/2010	Failure to maintain BMPs	Letter of Warning	Wendy Robinson	Request for Voluntary Compliance
OMA00000207-158-1	Double D Industrial Park	NW Corner of Sorenson Pkwy and Wenninghoff Rd Omaha NE 68134	Complete	7/2/2010	Failure to submit inspection reports	Notice of Violation	Carol Sorensen	Request for Voluntary Compliance
OMA20081023-879-2	Bucky's Express	3024 S 84th Street Omaha NE 68124	Complete	7/9/2010	Failure to maintain BMPs	Letter of Warning	Heather Tippey Pierce	NOV w/ Fine
OMA00050200-75-1	Cherry Hills Business Park	NE of 101st & Scott Circle Omaha NE 68122	Complete	7/23/2010	Late and Missing Reports	Notice of Violation	Carol Sorensen	No Action Taken
OMA20090126-933-1	UNMC College of Nursing Addition	41st Street & Dewey Avenue Omaha NE 68198-7100	Complete	7/28/2010	Failed to fix BMP s	Letter of Warning	Chris Barajas	LOW Issued
OMA20071113-703-1	TRIBEDO	330 N 117th Street Omaha NE 68154	Complete	7/30/2010	Failure to install and maintain BMPs	Notice of Violation	Dan May	Request for Voluntary Compliance
OMA20071105-700-2	Skyline Meadows	21805 Lacy Drive Omaha NE 68022	Complete	8/3/2010	Failure to submit inspection reports	Notice of Violation	Chris Barajas	No Action Taken
OMA20080905-859-1	OPPD Service Center Relocation	Font Street and Lindbergh Drive Omaha NE 68110	Complete	8/18/2010	Late and Missing Reports	Letter of Warning	Ron Bartlett	Request for Voluntary Compliance
OMA20100112-1051-2	Cody Elementary School Parking Lot Renovation	3320 South 127th Street Omaha NE 68144	Complete	8/31/2010	Failure to submit inspection reports	Letter of Warning	Casey Black	Request for Voluntary Compliance
OMA00050737-290-1	Camden Grove Townhomes LLC	174th & Blondo St Omaha NE 68116	Complete	9/28/2010	Failure to maintain BMPs	Letter of Warning	Carol Sorensen	Request for Voluntary Compliance
OMA00050618-257-1	Falling Waters	192 & Y st Omaha NE 68135	Complete	10/8/2010	Failure to maintain BMPs	Notice of Violation	Carol Sorensen	Request for Voluntary Compliance
OMA20090420-974-2	John Deere	13747 Industrial Road Omaha NE 68137	Complete	11/18/2010	Failure to complete maintenance in a timely manner	Letter of Warning	Carol Sorensen	Request for Voluntary Compliance
OMA20070309-545-2	Johnstone Supply Company	30th and Edward Babge Gomez Ave Omaha NE 68107	Complete	11/18/2010	Failure to inspect & submit reports	Notice of Violation	Carol Sorensen	No Action Taken
OMA20090925-1023-2	Permanent Supportive Housing Facility	2201 East Locust Street Omaha NE 68119	Pending	12/20/2010	Failure to submit permit modification	Letter of Warning	Carol Sorensen	



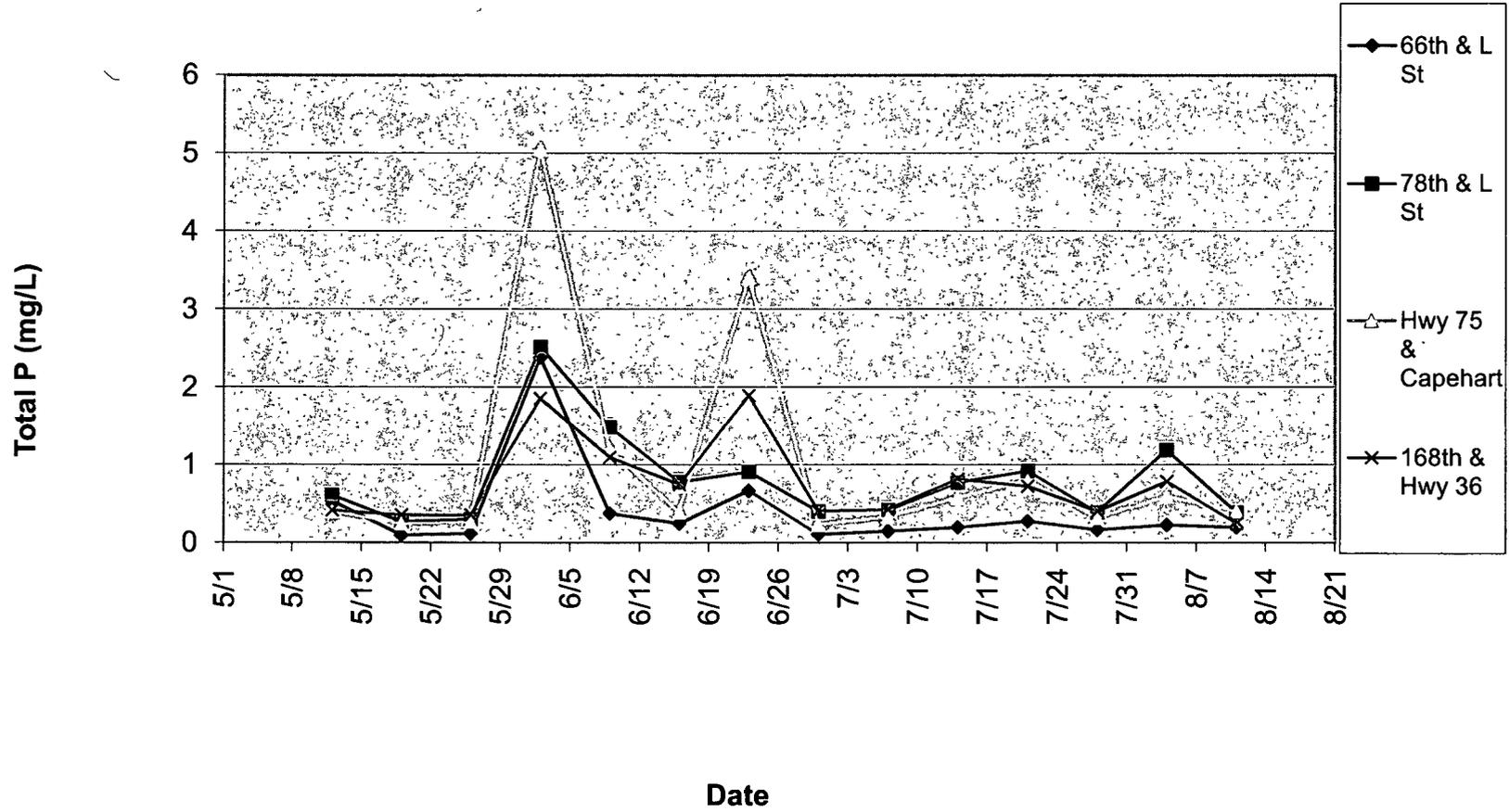
Site B = 168th and Hwy 36
 Site D = Hwy 75 and Capehart Road
 Site S = 78th and L Street
 Site F = 66th and L Street

D

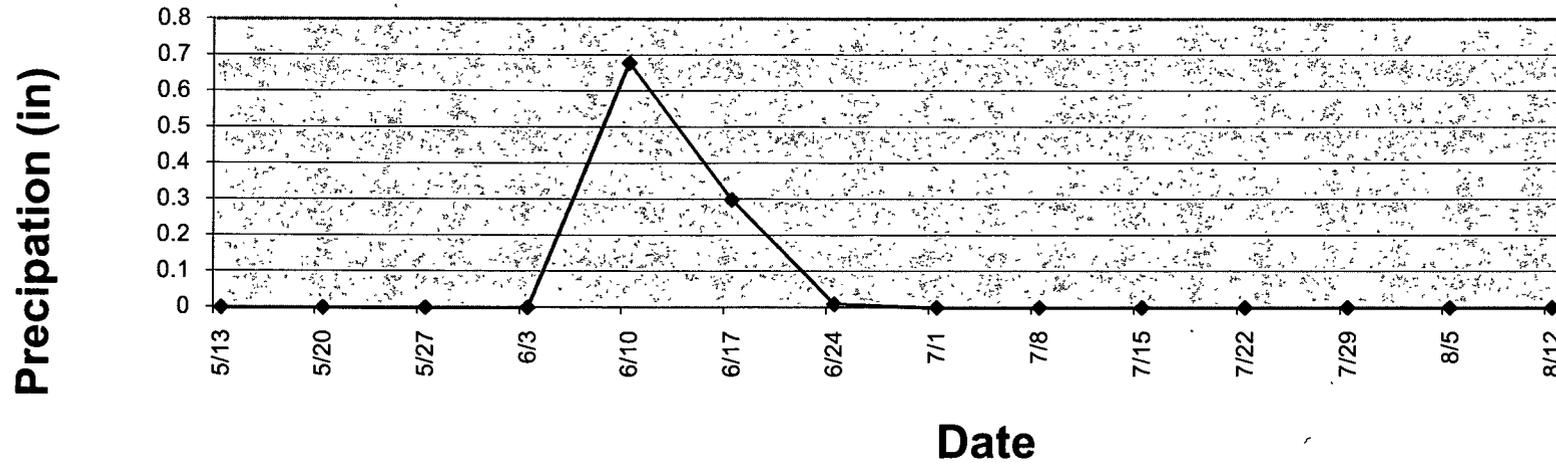


Site B = 168th and Hwy 36
 Site D = Hwy 75 and Capehart Road
 Site S = 78th and L Street
 Site F = 66th and L Street

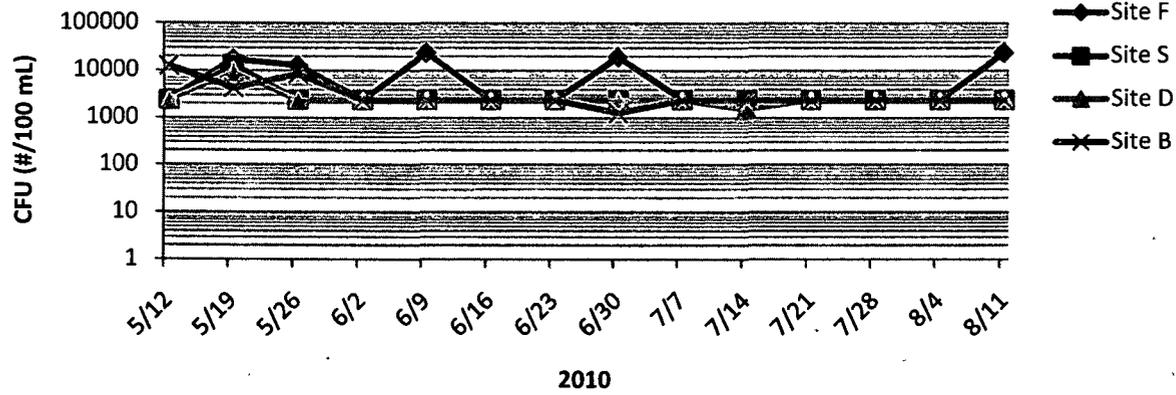
Total Phosphorus



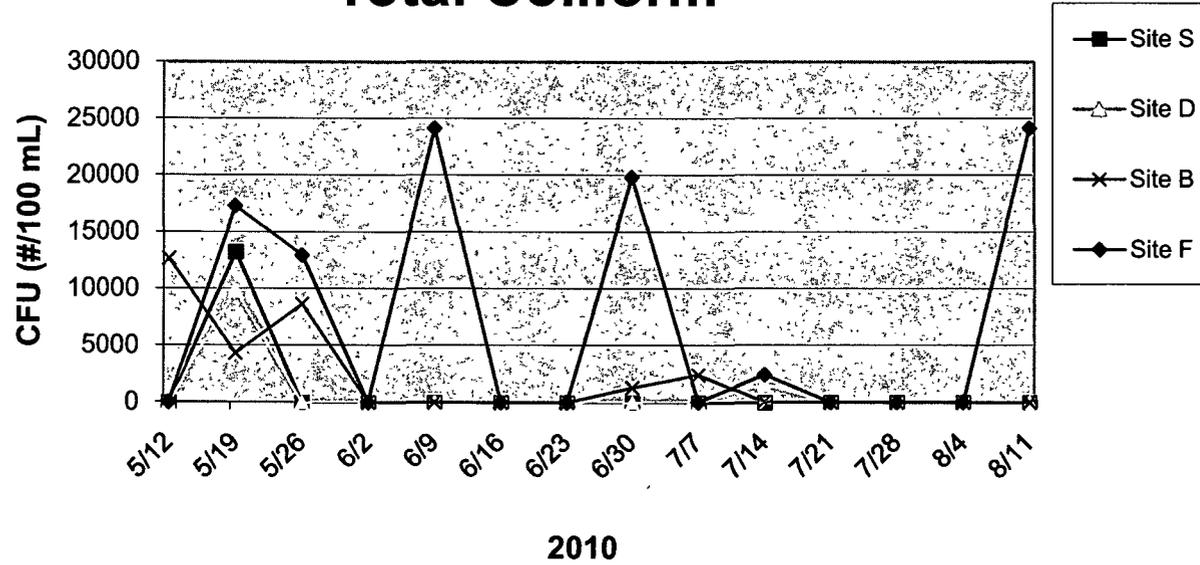
Summer '10 Precipitation (in/day)



Total Coliform (Log Scale)



Total Coliform



Total Coliform 2010

	Site F	Site S	Site D	Site B
5/12/2010	2419.6	2419.6	2419.6	12667
5/19/2010	17329	13307.8	9874.3	4352
5/26/2010	12997	2419.6	2419.6	8664
6/2/2010	2419.6	2419.6	2419.6	2419.6
6/9/2010	24196	2419.6	2419.6	2419.6
6/16/2010	2419.6	2419.6	2419.6	2419.6
6/23/2010	2419.6	2419.6	2419.6	2419.6
6/30/2010	19863	2419.6	2419.6	1299.7
7/7/2010	2419.6	2419.6	2419.6	2419.6
7/14/2010	2419.6	2419.6	1553.1	2419.6
7/21/2010	2419.6	2419.6	2419.6	2419.6
7/28/2010	2419.6	2419.6	2419.6	2419.6
8/4/2010	2419.6	2419.6	2419.6	2419.6
8/11/2010	24196	2419.6	2419.6	2419.6
Geomean	5071.44	2732.92	2591.89	2975.75

Bold indicates the actual value is greater than the value given.

	5/12/2010	5/19/2010	5/26/2010	6/2/2010	6/9/2010	6/16/2010	6/23/2010	6/30/2010	7/7/2010	7/14/2010	7/21/2010	7/28/2010	8/4/2010	8/11/2010
ite F	>2419.6	17329	12997	>2419.6	24196	>2419.6	>2419.6	19863	>2419.6	2419.6	>2419.6	>2419.6	>2419.6	24196
ite S	>2419.6	13307.8	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6
ite D	>2419.6	9874.3	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	1553.1	>2419.6	>2419.6	>2419.6	>2419.6
ite B	12667	4352	8664	>2419.6	>2419.6	>2419.6	>2419.6	1299.7	2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6

Site B = 168th and Hay 36

Site D = 75th and Capehart

Site S = 78th and L Street

Site F = 66th and L Street

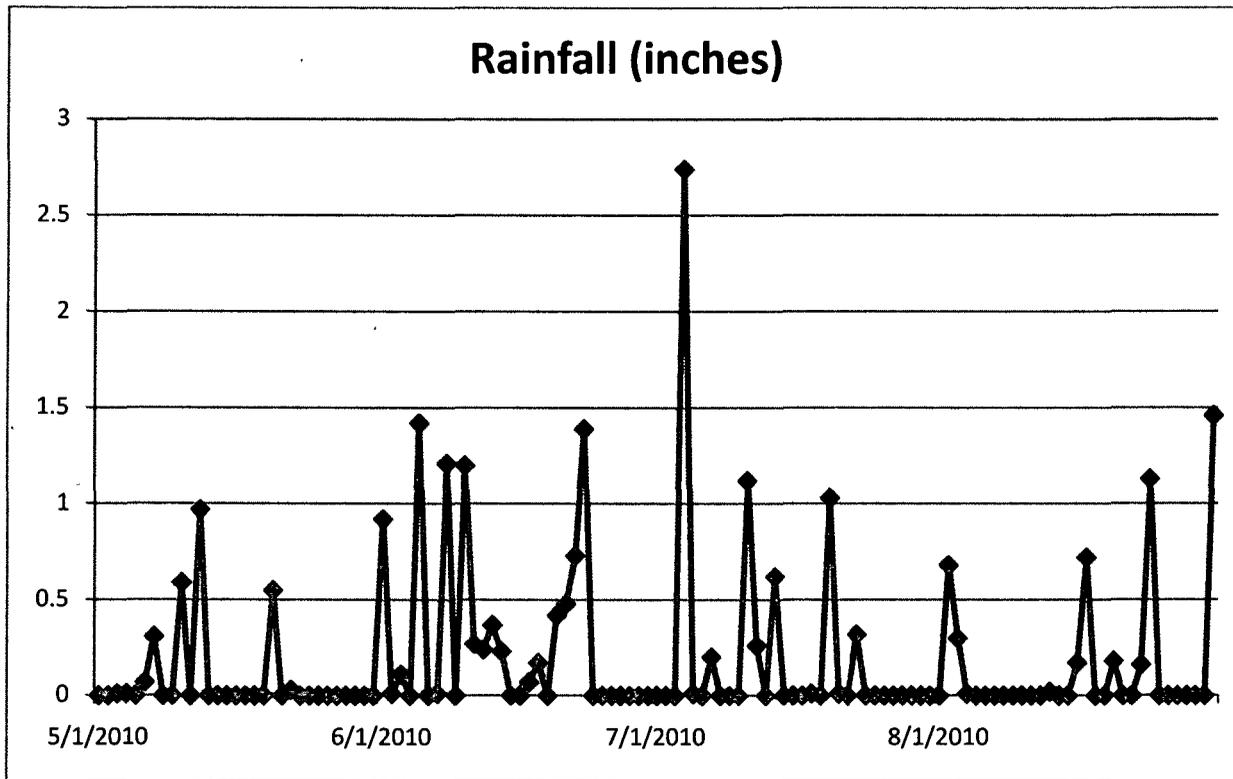
Date	PPT	F	S	D	B
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5/1/2010	0				
5/2/2010	0				
5/3/2010	0.01				
5/4/2010	0.01				
5/5/2010	0				
5/6/2010	0.07				
5/7/2010	0.31				
5/8/2010	0				
5/9/2010	0				
5/10/2010	0.59				
5/11/2010	0				
5/12/2010	0.97	>2419.6	>2419.6	>2419.6	12667
5/13/2010	0				
5/14/2010	0				
5/15/2010	0				
5/16/2010	0				
5/17/2010	0				
5/18/2010	0				
5/19/2010	0	17329	13307.8	9874.3	4352
5/20/2010	0.55				
5/21/2010	0				
5/22/2010	0.03				
5/23/2010	0				
5/24/2010	0				
5/25/2010	0				
5/26/2010	0	12997	>2419.6	>2419.6	8664
5/27/2010	0				
5/28/2010	0				
5/29/2010	0				
5/30/2010	0				
5/31/2010	0				
6/1/2010	0.92				
6/2/2010	0.01	>2419.6	>2419.6	>2419.6	>2419.6
6/3/2010	0.11				
6/4/2010	0				

6/5/2010	1.42				
6/6/2010	0				
6/7/2010	0.01				
6/8/2010	1.21				
6/9/2010	0	24196	>2419.6	>2419.6	>2419.6
6/10/2010	1.2				
6/11/2010	0.27				
6/12/2010	0.24				
6/13/2010	0.37				
6/14/2010	0.23				
6/15/2010	0				
6/16/2010	0	>2419.6	>2419.6	>2419.6	>2419.6
6/17/2010	0.07				
6/18/2010	0.17				
6/19/2010	0				
6/20/2010	0.42				
6/21/2010	0.48				
6/22/2010	0.73				
6/23/2010	1.39	>2419.6	>2419.6	>2419.6	>2419.6
6/24/2010	0				
6/25/2010	0				
6/26/2010	0				
6/27/2010	0				
6/28/2010	0				
6/29/2010	0				
6/30/2010	0	19863	>2419.6	>2419.6	1299.7
7/1/2010	0				
7/2/2010	0				
7/3/2010	0				
7/4/2010	2.74				
7/5/2010	0.01				
7/6/2010	0				
7/7/2010	0.2	>2419.6	>2419.6	>2419.6	2419.6
7/8/2010	0				
7/9/2010	0				

7/10/2010	0				
7/11/2010	1.12				
7/12/2010	0.26				
7/13/2010	0				
7/14/2010	0.62	2419.6	>2419.6	1553.1	>2419.6
7/15/2010	0				
7/16/2010	0				
7/17/2010	0				
7/18/2010	0.01				
7/19/2010	0				
7/20/2010	1.03				
7/21/2010	0.01	>2419.6	>2419.6	>2419.6	>2419.6
7/22/2010	0				
7/23/2010	0.32				
7/24/2010	0				
7/25/2010	0				
7/26/2010	0				
7/27/2010	0				
7/28/2010	0	>2419.6	>2419.6	>2419.6	>2419.6
7/29/2010	0				
7/30/2010	0				
7/31/2010	0				
8/1/2010	0				
8/2/2010	0.68				
8/3/2010	0.3				
8/4/2010	0.01	>2419.6	>2419.6	>2419.6	>2419.6
8/5/2010	0				
8/6/2010	0				
8/7/2010	0				
8/8/2010	0				
8/9/2010	0				
8/10/2010	0				
8/11/2010	0	24196	>2419.6	>2419.6	>2419.6
8/12/2010	0				
8/13/2010	0.02				

8/14/2010	0
8/15/2010	0
8/16/2010	0.17
8/17/2010	0.72
8/18/2010	0
8/19/2010	0
8/20/2010	0.18
8/21/2010	0
8/22/2010	0
8/23/2010	0.16
8/24/2010	1.13
8/25/2010	0
8/26/2010	0
8/27/2010	0
8/28/2010	0
8/29/2010	0
8/30/2010	0
8/31/2010	1.46



2010 Precipitation Data							
DATE	PRECIP (in)	DATE	PRECIP (in)	DATE	PRECIP (in)	DATE	PRECIP (in)
5/1/2010	0.00	6/1/2010	0.92	7/1/2010	0.00	8/1/2010	0.00
5/2/2010	0.00	6/2/2010	0.01	7/2/2010	0.00	8/2/2010	0.68
5/3/2010	0.01	6/3/2010	0.11	7/3/2010	0.00	8/3/2010	0.30
5/4/2010	0.01	6/4/2010	0.00	7/4/2010	2.74	8/4/2010	0.01
5/5/2010	0.00	6/5/2010	1.42	7/5/2010	0.01	8/5/2010	0.00
5/6/2010	0.07	6/6/2010	0.00	7/6/2010	0.00	8/6/2010	0.00
5/7/2010	0.31	6/7/2010	0.01	7/7/2010	0.20	8/7/2010	0.00
5/8/2010	0.00	6/8/2010	1.21	7/8/2010	0.00	8/8/2010	0.00

5/9/2010	0.00	6/9/2010	0.00	7/9/2010	0.00	8/9/2010	0.00
5/10/2010	0.59	6/10/2010	1.20	7/10/2010	0.00	8/10/2010	0.00
5/11/2010	0.00	6/11/2010	0.27	7/11/2010	1.12	8/11/2010	0.00
5/12/2010	0.97	6/12/2010	0.24	7/12/2010	0.26	8/12/2010	0.00
5/13/2010	0.00	6/13/2010	0.37	7/13/2010	0.00	8/13/2010	0.02
5/14/2010	0.00	6/14/2010	0.23	7/14/2010	0.62	8/14/2010	0.00
5/15/2010	0.00	6/15/2010	0.00	7/15/2010	0.00	8/15/2010	0.00
5/16/2010	0.00	6/16/2010	0.00	7/16/2010	0.00	8/16/2010	0.17
5/17/2010	0.00	6/17/2010	0.07	7/17/2010	0.00	8/17/2010	0.72
5/18/2010	0.00	6/18/2010	0.17	7/18/2010	0.01	8/18/2010	0.00
5/19/2010	0.00	6/19/2010	0.00	7/19/2010	0.00	8/19/2010	0.00
5/20/2010	0.55	6/20/2010	0.42	7/20/2010	1.03	8/20/2010	0.18
5/21/2010	0.00	6/21/2010	0.48	7/21/2010	0.01	8/21/2010	0.00
5/22/2010	0.03	6/22/2010	0.73	7/22/2010	0.00	8/22/2010	0.00
5/23/2010	0.00	6/23/2010	1.39	7/23/2010	0.32	8/23/2010	0.16
5/24/2010	0.00	6/24/2010	0.00	7/24/2010	0.00	8/24/2010	1.13
5/25/2010	0.00	6/25/2010	0.00	7/25/2010	0.00	8/25/2010	0
5/26/2010	0.00	6/26/2010	0.00	7/26/2010	0.00	8/26/2010	0
5/27/2010	0.00	6/27/2010	0.00	7/27/2010	0.00	8/27/2010	0
5/28/2010	0.00	6/28/2010	0.00	7/28/2010	0.00	8/28/2010	0
5/29/2010	0.00	6/29/2010	0.00	7/29/2010	0.00	8/29/2010	0
5/30/2010	0.00	6/30/2010	0.00	7/30/2010	0.00	8/30/2010	0
5/31/2010	0.00			7/31/2010	0.00	8/31/2010	1.46

