



**Municipal Separate Storm Sewer System (MS4)
Annual Report**

January 1, 2011 – December 31, 2011

NDEQ Permit No: NE0134015

March 29, 2012

Nebraska Department of Environmental Quality
Wastewater Section
1200 N Street, Ste. 400
PO Box 98922
Lincoln, NE 68509-8922

ATTN: Blayne Renner, Stormwater Program Coordinator

RE: Nebraska Department of Roads Municipal Stormwater Permit [NE0134015]

Dear Blayne:

Per Part IV.A of the Nebraska Department of Roads (NDOR) Municipal Stormwater Permit [NPDES Permit NE0134015], NDOR is submitting the attached Annual Report for Permit Year *Five (January 1, 2011 – December 31, 2011)*.

"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 knowing violations."

Signed:

Date: 3/29/12

Printed Name: Ronald Poe

Title: Highway Environmental Program Manager

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Executive Summary of Program Activity

The NDOR Storm Water Management Program (SWMP) was developed by the Nebraska Department of Roads (NDOR) in 2006 to comply with Municipal Separate Storm Sewer System (MS4) Permit application requirements. NDOR was officially permitted on January 1, 2007. Each year activities from the previous year are summarized and recorded in an annual report to the Nebraska Department of Environmental Quality (NDEQ). This report documents MS4 Permit compliance efforts made during January 1, 2011 through December 31, 2011. This report documents the final year of the first permit cycle. An updated Stormwater Management Plan has been drafted and submitted to NDEQ for approval.

The following highlights the major accomplishments made in each of the program areas throughout 2011:

Education and Outreach

- ✓ A total of 5 NDOR Erosion and Sediment Control for Inspector courses were held throughout 2011 with approximately 190 people attending. Upon completion of the course attendees are required to pass an exam and are then certified for 3 years to inspect NDOR projects.
- ✓ A total of 11 half day NDOR Erosion and Sediment Control for Inspector Recertification classes were administered in 2011. Approximately 255 people were recertified.
- ✓ Environmental Bulletins were distributed to project field staff on a quarterly basis in 2011. Bulletins highlight stormwater BMPs, summarize permit conditions and list upcoming training opportunities.
- ✓ Two New Highway Supervisor/Superintendent Training Courses were provided in January and July of 2011. The training incorporated upcoming changes with the MS4 program, existing permit responsibilities, and highlighted areas of Illicit Discharge Detection and Post Construction Stormwater BMP maintenance requirements.
- ✓ SPCC site visits occurred in conjunction with Good Housekeeping reviews at unregulated facilities in District 4 during 2011. Site assessment reports were provided to the District 4 Engineer and District 4 Operations and Maintenance Manager.
- ✓ SPCC site visits and plan updates were conducted across 10 facilities in 2011.

Public Involvement

- ✓ Each project let in 2011 achieved the NDOR Public Participation Policy standards.
- ✓ NDOR held quarterly meetings with the Compliance Technical Advisory Group (CTAG) and conducted monthly CTAG Workgroup meetings throughout the year to work on project specific items.
- ✓ Environmental meetings were held with District Environmental Coordinators in the spring and fall. These meetings cover a range of environmental topics with the goal up keeping the line of communication open with the District offices.
- ✓ Approximately 2200 volunteers participated in the annual Trash Off event and filled over 1900 orange Adopt-a-Highway trash bags.

Illicit Discharge Detection and Elimination

- ✓ NDOR completed mapping of all applicable outfalls in the Omaha Urbanized Area. NDOR maintains a GIS database where outfalls are tracked.
- ✓ The existing New Highway Maintenance Supervisor/Superintendent Course content was revised to provide training for IDDE program components.
- ✓ NDOR has been actively engaged in resolving specific issues in conjunction with spills to the NDOR ROW. NDOR has been actively pursuing the development of a spill protocol for District staff to follow in conjunction with the MS4 IDDE program already developed in the Stormwater Management Plan.

Construction

- ✓ The Environmental Compliance and Oversight Database (ECO-Database) was used by a number of people in 2011 to conduct stormwater inspections. Specifically RSU Staff, District Environmental Coordinators, Consultants and a handful of Project Managers across the state are currently using this system to log inspections.
- ✓ Several enhancements were made to ECO-Database in 2011. They are highlighted below:
 - Project Specific Reporting – ECO-Database now has the capability of tailoring reports to specific projects. In the past all project inspection reports were subject to the same questions regardless of whether or not they had a particular permit or condition on the project. Inspection reports can be customized to projects based upon applicable permits and environmental commitments.
 - Corrective Action Log – A recently created corrective action log feature allows ECO-D users to log and track all corrective actions on a project. The list remains active and current during the project and inspectors can update the list and date out actions as they are addressed. The corrective action log also allows for any other ECO-Database user to log in and review the corrective actions on a project as they are addressed.
 - Notifications – When project inspections are completed using ECO-D, a notification email is sent to a pre-defined list of people, with an internet link to view the report. Also included in the email notification is a link to view the corrective action log for the project.
 - Inspection Scheduling and Notification – Another new feature built into the current version of ECO-D is the ability to define when certain inspections need to be completed for specific projects. If an inspector is approaching a required inspection an automatic email can be sent to remind them of the upcoming inspection. Likewise if an inspector has not submitted a required report, another notification email can be generated requesting the inspector to complete the report.
 - New Inspection Templates – Inspection templates were initially created to conduct stormwater inspections. Work done in 2011 now allows NDOR to create new templates that may be used for other environmental commitments outside of the stormwater permit.
- ✓ Three on-call consulting firms were used for compliance oversight inspections in 2011.
- ✓ There were no enforcement actions taken against NDOR for erosion and sediment control issues in 2011.

Post Construction

- ✓ The Post Construction Workgroup completed a final draft of NDOR's Drainage Design and Erosional Control Manual's Chapter 3, *Stormwater Treatment Within Municipal Separate Storm Sewer System (MS4) Communities*, in December 2011.
- ✓ All new projects are being reviewed for Post Construction Treatment BMPs at Environmental Coordination Meetings.
- ✓ Post Construction Stormwater Treatment BMP Design Guides are being developed by Felsburg, Holt and Ullevig (FHU) Consulting Firm, under the direction and guidance of the Post Construction Workgroup.

Good Housekeeping/Pollution Prevention

- ✓ A total of six facility audits were performed across NDOR Districts 4 and 6. Locations in these districts span Central and West Central Nebraska. Maintenance facilities audited in 2011 were located in North Platte (2), Lexington (1), Kearney (2), and Grand Island (1). This was the second audit for these facilities since implementation of the FRCP program.
- ✓ The SPCC program is in place at a majority of NDOR maintenance facilities and requires NDOR staff (353 total in 2011) with oil handling responsibilities to obtain annual training. NDOR Operations Division worked with Human Resources and Information Technology in 2011 to continue to update the training test to make it specific to NDOR maintenance facilities. Both the training and test are administered online through Talent Edge Learning Management and PureSafety.
- ✓ A total of 31 NDOR staff consisting of Highway Maintenance Superintendents, Supervisors, Crew Chiefs and Senior Maintenance Workers attended the three day New Highway Maintenance Supervisor/Superintendent Training Course in January and July 2011. The Environmental module participant guide is included in all course materials and provides a desk reference resource for stormwater and other environmental responsibilities within the department.
- ✓ An intra-net interactive GIS map has been developed for Maintenance staff to identify environmentally related boundaries within the state. Access to this spatial information provides a visual tool to identify environmentally sensitive areas (e.g. Threatened and endangered species, wetlands, wells) and MS4 stormwater related information such as priority and non-priority outfalls. Additionally NDOR specific information such as highway and reference posts has been added to link common field knowledge with related stormwater permit information. NDOR anticipates increased use over time as training is continued under the Illicit Discharge Stormwater program. Future environmental reference guidance will be developed and incorporated into the NDOR Maintenance Manual.

Figure 1 NDOR State-wide MS4 Areas

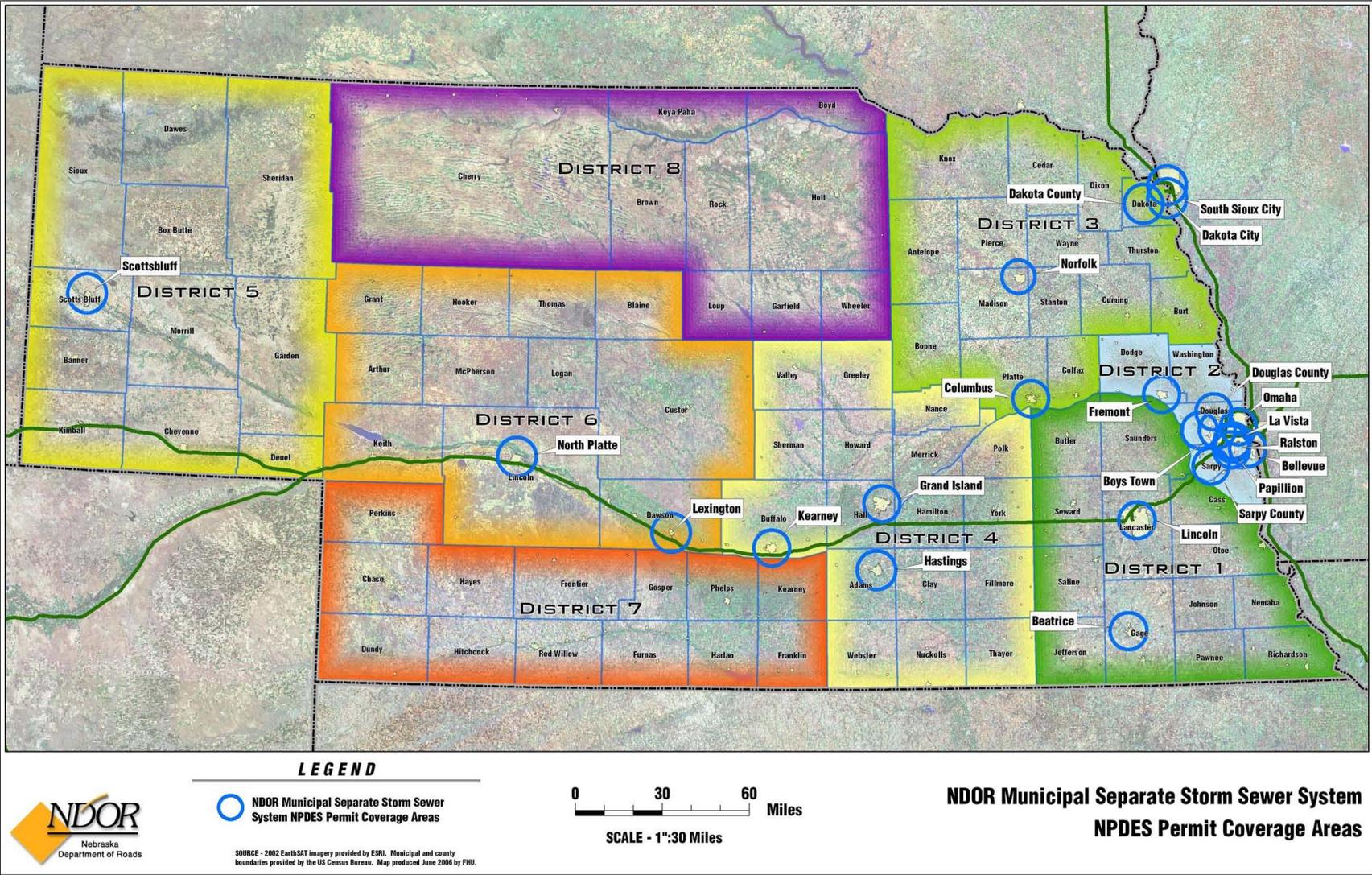
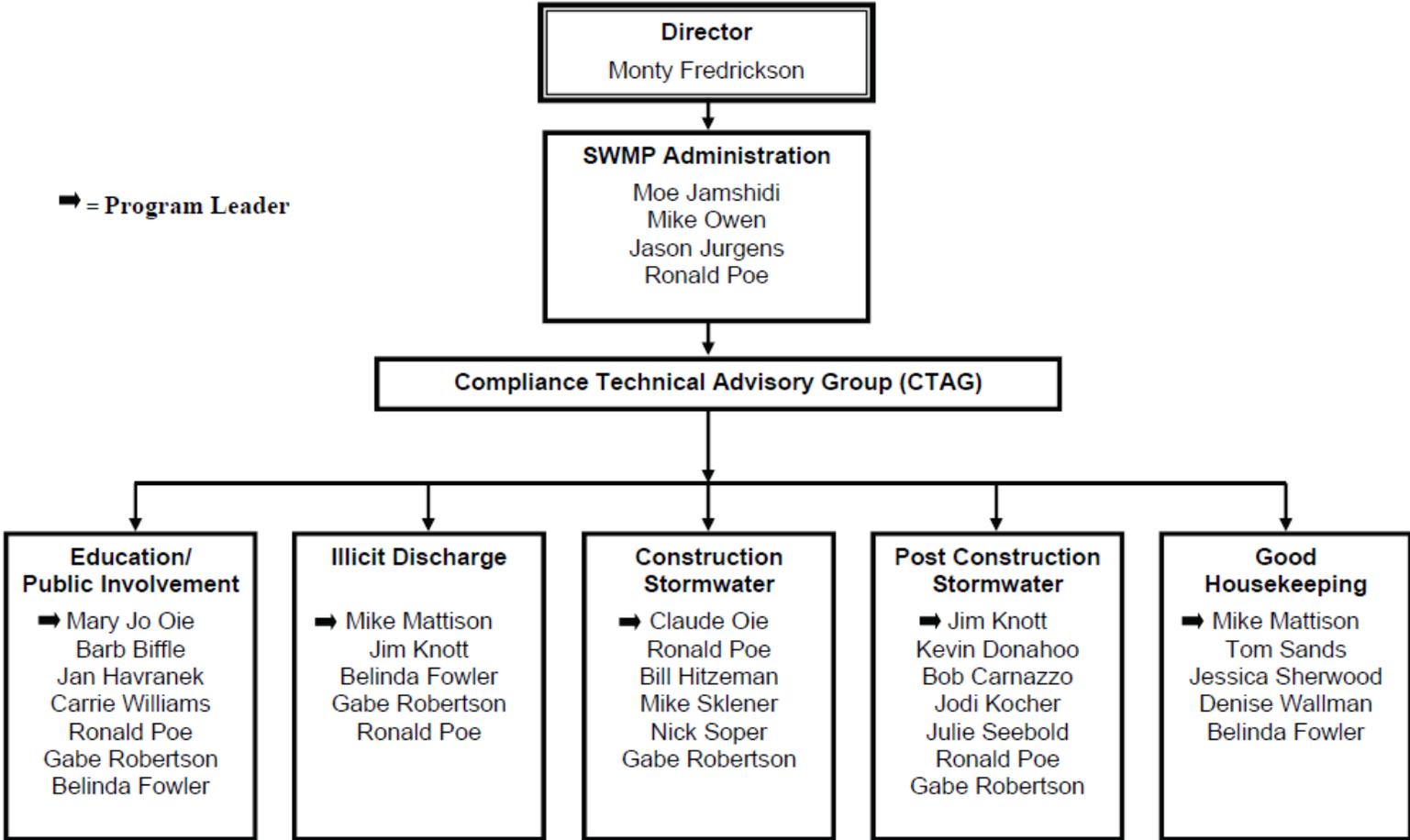


Figure 2 NDOR Compliance Technical Advisory Group

State-Wide Stormwater Management Program



1.0 PUBLIC EDUCATION AND OUTREACH

The 2011 measurable goals for Public Education and Outreach are summarized below.

Measurable Goal 1.1 (a) - Develop guidance materials on reducing storm water impacts to water bodies.

- ▶ NDOR will consider producing an updated version of the erosion and sediment control pocket guide. In 2009, 3000 copies were printed and distributed. To date the supply is reduced to about 400 copies with an estimated 200 to be distributed in 2011.
 - ✓ Approximately 190 people were certified in the NDOR Erosion and Sediment Control for Inspectors Course throughout 2011. Pocket guides were distributed to all attendees at the classes. Approximately 200 pocket guides are remaining for classes in 2012. At this time NDOR has not moved forward with updating the pocket guide and has considered holding off until the new Nebraska Construction Stormwater General Permit is released in 2013. This would allow new permit information to be incorporated with the necessary guidance. NDOR has included the development of an updated pocket guide in the new NDOR Stormwater Management Program developed for years 2012-2016.
- ▶ Distribute Quarterly Environmental Bulletins to Project Managers, District Environmental Coordinators and other field staff.
 - ✓ Environmental Bulletins were distributed to project field staff on a quarterly basis in 2011. Bulletins highlight stormwater BMPs, summarize permit conditions and list upcoming training opportunities.
- ▶ Enhance NDOR Stormwater Webpage. This will include re-organizing the site to highlight program activities and compliance efforts, to promote training and educational links and to make stormwater documents available for download.
 - ✓ Enhancement of the NDOR Stormwater Webpage was not completed during 2011. The site does allow for stormwater documents to be downloaded as needed and links are provided to applicable training. NDOR has included stormwater updates in the new Stormwater Management Plan for years 2012-2016.
- ▶ Complete the first edition of Chapter 3: Post Construction Stormwater Control, for the Drainage Design and Erosion Control Manual. NDOR plans to have the majority of edits completed for Chapter 3 so the program can be introduced to Designers by the end of 2011. This would include an initial training class to introduce designers to Chapter 3 and the referenced Treatment BMP Design Guides. The Post Construction Program is very complex and NDOR envisions that Chapter 3 will be updated as the program evolves and regulations change.
 - ✓ A final draft of Chapter 3 was completed in December 2011 and distributed to the Roadway Design Section Heads for review. Copies were also sent to FHWA for comments. The Post Construction Stormwater Workgroup will continue to meet in 2012 to address final comments as well as to begin drafting Treatment BMP Design Guides that will serve as an appendix to Chapter 3. All projects letting in 2013 or later are currently being reviewed for Post Construction Stormwater Treatment BMPs using the draft document.

- ▶ Develop Treatment BMP Design Guides for Chapter 3 (Post Construction Stormwater).
 - ✓ Design guides are under development and are scheduled for completion in 2012. NDOR has contracted with FHU Consulting to assist with the development of the design guides. The Post Construction Workgroup is having regular meetings with FHU to ensure that guides are applicable to roadway projects.

Measurable Goal 1.1 (b) - Provide training on reducing storm water impacts to water bodies.

- ▶ The NDOR Erosion and Sediment Control for Inspectors course will be held as needed to certify project inspectors across the state. These courses will still feature Leo Holm (Retired MNDOT Engineer) as the main instructor throughout the day.
 - ✓ A total of 5 NDOR Erosion and Sediment Control for Inspector courses were held throughout 2011 with approximately 190 people attending. Upon completion of the course attendees are required to pass an exam and are then certified for 3 years to inspect NDOR projects. After 3 years, individuals are required to sit through a half day recertification course. All classes held in 2011 are summarized in Table 1.
- ▶ NDOR Erosion and Sediment Control for Inspectors “Re-Certification” Course will be offered starting in 2011 for those individuals who have been certified for 3 years. This half day course will be coordinated in cooperation with Nebraska LTAP much like the full day certification course but will be taught entirely by NDOR environmental staff. This course will be offered more frequently across the state to accommodate construction schedules and travel requirements.
 - ✓ A total of 11 half day NDOR Erosion and Sediment Control for Inspector Recertification classes were administered in 2011. Through those classes, approximately 255 people were recertified.
- ▶ Hold initial training class for NDOR Roadway Designers to introduce them to Chapter 3 Post Construction Stormwater Management and Treatment BMP Design Guides. This would be the first in a series of trainings for Designers to familiarize them with Chapter 3 requirements.
 - ✓ Training is postponed until Treatment BMPs are finalized.
- ▶ NDOR will hold a Question and Answer breakout session at the Annual Maintenance Conference in May of 2011 to address Environmental and storm water related topics specific to Maintenance and Operations activities within the department.
 - ✓ The breakout session was held at the Annual Maintenance Conference in May of 2011. It consisted of a panel of the District 7 Operations and Maintenance Manager, the District 4 Environmental Coordinator, and Operations Highway Environmental Program Specialist and the Maintenance Engineer as the moderator. Participants in the break out session were able to ask questions with regard to Spills and Illicit Discharges to the NDOR Right-of-Way, clean up costs and responsibilities, and environmental impacts to

lands adjacent to NDOR Right-of-Way. Good Housekeeping and SPCC compliance documentation questions were also answered from those on the panel.

- ▶ Updates to the Maintenance Library and Operations websites will be provided throughout the year.
 - ✓ Changes to the maintenance library have included activities from the field for updating the online MSDS database. Changes to the websites were minimal as administration defines division roles to house, serve and update one or both web pages within the agency.
- ▶ NDOR will update the Environmental Chapter of the Maintenance Manual in 2011.
 - ✓ In lieu of providing updates to the Environmental Chapter of the Maintenance Manual, environmental training and compliance needs have been identified on a statewide basis. The update to the Environmental Chapter has been postponed with the goal to implement changes and standard operating procedures in 2012 as NDOR moves through addressing various environmental programmatic needs and processes.
 - ✓ An administrative policy was distributed agency wide for Road Oil Distributor BMP's related to cleaning and operations in the field. This policy will be included in the maintenance manual when changes are implemented.
- ▶ FRCP audits and the associated training will occur in NDOR Districts 4 and 6 during 2011.
 - ✓ A total of 6 audits and associated training were performed across NDOR Districts 4 and 6 in 2011. All facilities implementing the Facility Runoff Control Plan program were audited in these areas.
 - ✓ In order to assess level of awareness and training efficiencies, a supplemental questionnaire was developed and provided to interviewees during the audits.
 - ✓ Audit grading procedures were identified as not effective in 2011. Plans exist to revise existing grading assignments during the FRCP audits in 2012.
- ▶ Two New Highway Supervisor/Superintendent Training Courses will be conducted during 2011. Training will be modified to include pertinent MS4 permit information as developed by the department (PCSW).
 - ✓ Two training courses were provided in January and July of 2011. The training incorporated upcoming changes with the MS4 program, existing permit responsibilities, and highlighted areas of Illicit Discharge Detection and Post Construction Stormwater BMP maintenance requirements.
 - ✓ Photos of regular NDOR Maintenance activities were added to the training and open discussions on all environmental areas ensued as they pertain to field work. Examples included: wetland and threatened and endangered species, migratory bird treaty act, asphalt overlays, armor coating activities, materials used, etc.

- ▶ Ongoing district site visits for SPCC will continue to provide training on reducing impacts to waterways near NDOR facilities subject to SPCC updates.
 - ✓ SPCC site visits occurred in conjunction with Good Housekeeping reviews at unregulated facilities in District 4 during 2011. Site assessment reports were provided to the District 4 Engineer and District 4 Operations and Maintenance Manager.
 - ✓ SPCC site visits and plan updates were conducted across 10 facilities in 2011.
 - ✓ The annual on line SPCC course was distributed with a modified test in 2011. The test was randomized and questions modified to encourage NDOR staff to utilize existing SPCC plans as reference documents during the testing. A grade of 80% on the test was required to “pass”, otherwise training was reassigned.

Measurable Goal 1.1 (c) - Participate in local and regional outreach efforts.

- ▶ Continue partnering with LTAP for training events.
 - ✓ NDOR utilizes the partnership with LTAP to schedule and administer erosion and sediment control training classes across the state.
- ▶ Stay involved with Nebraska Stormwater Cooperative and Papillion Creek Watershed Partnership.
 - ✓ NDOR continues to receive meeting notices and study agendas to attend as needed. Also regularly attend conferences hosted by these organizations to collaborate on stormwater issues.
- ▶ Present environmental awards for good environmental stewardship on NDOR construction projects and in maintenance facilities.
 - ✓ No environmental awards were provided in 2011 toward maintenance facilities.

*SWMP Annual Report
(January 1 to December 31, 2011)*

Table 1 Number and Nature of Education Activities

Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
April/May Edition: Roadrunner Article	NDOR Employees, State Agencies, and Citizens	Published on NDOR Website	2 Articles - Construction Project Receives Environmental Award (Charleston Link) and Construction Stormwater Management Award was presented to Green Thumb.	X	X	X	X	X
June/July Edition: Roadrunner Article	NDOR Employees, State Agencies, and Citizens	Published on NDOR Website	1 Article – North Carolina Professor Shares Stormwater Management Insights	X	X	X	X	X
June/July Edition: Roadrunner Article	NDOR Employees, State Agencies, and Citizens	Published on NDOR Website	1 Article – Great NE Trash Off Event (2,200 volunteers)	X	X	X	X	X
Winter 2010/2011 Edition: NDOR Environmental Bulletin	District Offices, Project Managers and Field Staff, Environmental Coordinators	Emailed to 250 NDOR Employees and available on Stormwater Website (75 web views)	Includes information on environmental permit requirements, upcoming training and other guidance	X	X	X	X	X
Spring 2011 Edition: NDOR Environmental Bulletin	District Offices, Project Managers and Field Staff, Environmental Coordinators	Emailed to 250 NDOR Employees and available on Stormwater Website (60 web views)	Includes information on environmental permit requirements, upcoming training and other guidance	X	X	X	X	X
Summer 2011 Edition: NDOR Environmental Bulletin	District Offices, Project Managers and Field Staff, Environmental Coordinators	Emailed to 250 NDOR Employees and available on Stormwater Website (117 web views)	Includes information on environmental permit requirements, upcoming training and other guidance	X	X	X	X	X

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Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
Fall 2011 Edition: NDOR Environmental Bulletin	District Offices, Project Managers and Field Staff, Environmental Coordinators	Emailed to 250 NDOR Employees and available on Stormwater Website (100 web views)	Includes information on environmental permit requirements, upcoming training and other guidance	X	X	X	X	X
January 20: Lincoln, NDOR Erosion Control Inspector Training	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	32 Attendees	Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
January 21: Grand Island, NDOR Erosion Control Inspector Training	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	40 Attendees	Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
January 24: Lincoln, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	34 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
January 25: Lincoln, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	38 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
January 25: MS4 Supervisor/Superintendent Training Course	NDOR Employees	18 Attendees	Training provided bi-annually or quarterly on all environmental areas related to Supervisors/Supt's job duties	X	X	X	X	X
February 3: Grand Island, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	20 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	

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Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
February 7: Lincoln, Culvert Design Webinar with Rollin Hotchkiss	NDOR Designers, Consultants	25 Attendees	Culvert Design Webinar with an environmental focus (Fish Passage)	X		X	X	
February 23: Holdrege, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	38 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
February 24: Norfolk, NDOR Erosion Control Inspector Training	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	40 Attendees	Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
March 8: District Environmental Coordinators Meeting	NDOR Staff	15 NDOR Attendees	NDOR Environmental Programs Coordination Meeting with District Staff.	X	X	X	X	X
March 8-10: NDOR Project Managers Conference	NDOR Employees and Contractors	Approximately 300 NDOR Employees	Environmental award given to Contractor and Project Manager for Erosion Control Project of the Year. Environmental Presentations.	X		X		
March 15: Omaha, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	28 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
March 16: Norfolk, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	45 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
March 24: Omaha, Post Construction Meeting	Contractors, Developers, Consultants	2 NDOR Employees	Attended Omaha Post Construction Steering Committee Meeting to discuss the revision of Omaha's Stormwater Design Manual	X		X	X	

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Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
March 31: CTAG Stormwater Meeting	NDOR Employees	12 Attendees	Quarterly stormwater meeting	X	X	X	X	X
April 12: ACEC Stormwater Program Presentation	NDOR Employees, Consultants	40 Attendees	Environmental Partnership Meeting with Consultants. NDOR provided an overview of the Stormwater Management Program being implemented.	X		X		
April 13: Lincoln, Post Construction Presentation to Roadway Design	Consultants, NDOR Employees	45 Attendees	Presentation by North Carolina Professor, Bill Hunt, who has done extensive stormwater BMP research.	X			X	
April 14: S. Sioux, NDOR Erosion Control Inspector Training	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	27 Attendees	Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
April 18: AASHTO Stormwater Teleconference	NDOR Employees	8 Attendees	Stormwater Briefing on a ruling against Washington State DOT.	X		X		
April 19: MS4 Annual Review Presentation	NDOR, NDEQ, FHWA, NDOR Employees	20 Attendees	MS4 Program, Annual Review Presentation to upper management and agencies.	X	X	X	X	X
April 21: Lincoln, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	14 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
April 27: Stormwater Good Housekeeping/Pollution Prevention Webinar	NDOR Employees	6 NDOR Attendees	WEBINAR on "Good Housekeeping for Municipalities" taught by Tom Liptan with the City of Portland	X			X	X

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Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
April 28: AASHTO Webinar-Construction Effluent Guidelines	NDOR Employees	8 NDOR Attendees	Overview of the emerging (ELG) requirements and current state of practice in controlling transportation construction runoff	X			X	X
April 21: Scottsbluff, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	21 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
June 23: NeFSMA Floodplain and Stormwater Mgmt Conference	Consultants, Cities, Counties, NDOR Employees, Regulatory Agencies	4 NDOR Attendees	NeFSMA Stormwater Conference	X		X	X	
June 30: CTAG Stormwater Meeting	NDOR Employees	12 Attendees	Quarterly stormwater meeting	X	X	X	X	X
July 18: Lincoln, Highway Design Hydrology Class	NDOR Employees, Consultants	15 Attendees	Culvert/Stormwater Design Class, taught by Rollin Hotchkiss	X		X	X	
August 18: AGC/NDOR Partnership Meeting	Contractors, NDOR Employees, Vendors	20 Attendees	Seeding/Erosion Control and Grading Committee Meeting	X		X	X	
September 14: CTAG Stormwater Meeting	NDOR Employees	12 Attendees	Quarterly stormwater meeting	X	X	X	X	X
September 15: Lincoln, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	22 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
September 21: North Platte, NDOR Erosion Control Inspector Recertification Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	19 Attendees	Re-Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	

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Education Provided or Information Distributed	Target Audience	Attendance/ Number Distributed	Description	MS4 Program Addressed				
				Water Quality	IDDE	CSW	PCSW	PP/GH
September 27: Lincoln, NDOR Erosion Control Inspector Training	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	26 Attendees	Certification Course Sponsored by NDOR and Nebraska Local Technical Assistance Program (NE-LTAP)	X		X	X	
September 28-29: Mahoney State Park, Erosion Control Design Course	Businesses, Contractors, Consultants, Municipalities, NDOR Employees, Utilities	21 Attendees	SWPPP Design Course (2 Days)	X		X	X	
October 20: NeFSMA Floodplain and Stormwater Mgmt Annual Conference	Consultants, Cities, Counties, NDOR Employees, Regulatory Agencies	4 NDOR Attendees	NeFSMA Stormwater Conference	X		X	X	
October 26-27: NDOR GPS Training	NDOR Employees,	6 Attendees	GPS training provided to NDOR employees by Seiler (Trimble Rep).	X	X	X	X	X
November 16-17: District Environmental Coordinators Meeting	NDOR Staff	15 NDOR Attendees	NDOR Environmental Programs Coordination Meeting with District Staff	X	X	X	X	X
December 15: CTAG Quarterly Meeting	NDOR Employees,	12 Attendees	Quarterly MS4 Meeting	X	X	X	X	X
Ongoing: Environmental Compliance Oversight Inspections	NDOR Staff / Consultants	Approximately 50 Site Visits	These inspections review environmental compliance on projects.	X		X		
Ongoing: Bi-Weekly Post Construction CTAG Workgroup Meetings	NDOR Post Construction Program Work Group	6 NDOR Employees	Regular Meetings to develop Chapter III of Erosion Control and Drainage Design Manual and Draft Treatment BMP Design Guides.	X			X	
Ongoing: NDOR Website	NDOR employees and the general public	4,621 visits to the Stormwater Site	MS4 Permit, SWMP Work Plan, and Educational Slide Shows added in 2007	X	X	X	X	X

Public Education and Outreach Activities Scheduled for 2012

BMP 1: Stormwater Education Materials

- ▶ Maintain Stormwater Education Materials as one aspect of the current and accurate PEO Strategy with SWMP
- ▶ Coordinate resources needed to develop stormwater quality education materials
- ▶ Distribute, track, and report stormwater quality education materials made available to the Target Audience

BMP 2: Stormwater Training and Events

- ▶ Maintain Stormwater Training and Events as one aspect of the current and accurate PEO Strategy
- ▶ Coordinate resources needed to develop Stormwater Training and facilitate Event opportunities
- ▶ Promote, *sponsor, (co)host, track, and report Stormwater Training and Event opportunities provided to the Target Audience*

BMP 3: Public Review and Comment

- ▶ Maintain Public Review and Comment as one aspect of the current and accurate PEO Strategy
- ▶ Coordinate resources needed to facilitate review and comment by the Target Audience
- ▶ Promote, *facilitate, track, and report Target Audience review opportunities*

BMP 4: Public Input Resources

- ▶ Maintain Public Input Resources as one aspect of the current and accurate PEO Strategy
- ▶ Coordinate resources needed to host public input resources (hotline, website, DIRK, ECO Database, etc.)
- ▶ Promote, *facilitate, track, and report public input provided to the MS4*

2.0 PUBLIC PARTICIPATION AND INVOLVEMENT

The 2011 measurable goals for Public Participation and Involvement are summarized below.

Measurable Goal 2.1 (a) - Continue to follow established public participation policies and procedures for NDOR projects.

- ▶ Continue to administer public participation policies and procedures for NDOR.
 - ✓ Each project let in 2011 achieved the NDOR Public Participation Policy standards.
- ▶ Hold quarterly CTAG meetings to review MS4 permit compliance efforts.
 - ✓ Quarterly CTAG meetings were throughout 2011. Dates are summarized in Table 1.
- ▶ Meet with District Environmental Coordinators at least twice a year to discuss implementation of the Departments Environmental Compliance Oversight Program.
 - ✓ Meetings were held with District Environmental Coordinators in the Spring and Fall. These meetings cover a range of environmental topics with the goal up keeping the line of communication open with the District offices.

Measurable Goal 2.1 (b)(c) - Engage public and track participation in environmental stewardship programs such as Adopt-A-Highway and Wetlands Bank Education.

- ▶ Administer and track participation in stormwater education programs.
 - ✓ Participation in all stormwater education programs in tracked in a database managed by the MS4 staff. NDOR also partners with Nebraska LTAP to administer training classes and track participation. Training dates and class numbers are summarized in Table 1.
- ▶ Continue to track miles cleaned, number of agreements, and entities participating in the Adopt-A-Highway Program.
 - ✓ Approximately 2200 volunteers participated in the annual Trash Off event.
- ▶ Quantify the amount of litter removed from Nebraska Roadsides through the Nebraska Trash-Off Program

- ✓ Volunteers filled over 1900 orange Adopt-a-Highway trash bags.

Measurable Goal 2.1 (d) - Amend standard language for Engineering Statements to reference erosion control plans for distribution at public hearings.

- ✓ Standard language is included in Engineering Statements stating sediment and erosion control measures will be implemented to minimize impacts on the surrounding environment and that exposed soil areas will be permanently seeded

Public Participation and Involvement Activities Scheduled for 2011

Public participation and involvement activities have been combined with MCM 1.0 Education in the draft SWMP for years 2012-2016.

3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

The 2011 measurable goals for Illicit Discharge Detection and Elimination are summarized below.

Measurable Goal 3.1 (a) - Develop map showing the location of all outfalls and the names and location of all waters of the state that receive discharges from those outfalls.

- ▶ All applicable outfall locations have been mapped according to the NDOR IDDE Program.
 - ✓ The majority of mapping activities in 2011 were concentrated within the Omaha Urbanized Area. To date, NDOR has completed all applicable mapping activities and will begin monitoring activities in 2012.
 - ✓ NDOR will continue to update the Outfall Map and attributes as any new outfalls are introduced or removed within the MS4 area on future projects.

Measurable Goal 3.2 (a) - Develop specification to prohibit non-stormwater discharges to NDOR MS4.

- ▶ Adequate statutes, policy, guidance and permits are in place and communicated in the IDDE Plan. NDOR will continue to review the program and make any necessary changes as the program is implemented in the second permit cycle.

Measurable Goal 3.2 (b) - Develop a process to coordinate with adjacent MS4 communities to remove illicit discharges that flow through an NDOR outfall, but are not the result of an NDOR activity.

- ▶ NDOR will attempt to enter into MOUs with the remaining applicable MS4s.
 - ✓ NDOR continues to partner with adjacent MS4s to administer the IDDE Program. To date the following MS4s have signed the MOU with NDOR: Lincoln, Omaha, Kearney, Papillion, Grand Island, Lexington, South Sioux City, Ralston and La Vista.
 - ✓ NDOR will evaluate this process during the second permit term to determine the effectiveness of these partnerships.

Measurable Goal 3.3 (a) - Develop Illicit Discharge Detection and Elimination Plan.

- ▶ IDDE plan is completed. NDOR will continue to review and update as needed.

Measurable Goal 3.4 (a) - Evaluate need to update and implement adequate NDOR internal policy, guidance, and manuals.

SWMP Annual Report (January 1 to December 31, 2011)

- ▶ As the IDDE program moves forward, NDOR will review the existing policy and make any necessary changes to the IDDE plan and associated documents.
 - ✓ During 2011, NDOR updated Attachment 3 (NDOR Outfall Monitoring Sheet) in the IDDE Plan. Changes were made to make the process of recording information at each location more efficient and practical do NDOR.
- ▶ NDOR will provide continued IDDE guidance through the Maintenance Manual Environmental Chapter in 2011. The updated manual will be cross-referenced on the Maintenance Library web site.
 - ✓ NDOR has been actively engaged in resolving specific issues in conjunction with spills to the NDOR ROW. Each incident resolved has presented unique challenges to address within NDOR and with outside responding and enforcement entities. NDOR has been actively pursuing the development of a protocol for District staff to follow in conjunction with the MS4 IDDE program already developed in the Stormwater Management Plan.
 - ✓ The existing New Highway Maintenance Supervisor/Superintendent Course content was revised to provide training for IDDE program components.
 - ✓ The updates to the Maintenance Manual were not finalized in 2011. The goal has been reset to 2012.

IDDE Inspections and Enforcement Actions

Table 2 Summary of Illicit Discharge Detection and Elimination Inspections and Enforcement Actions

Activity	Summary of Activity
Dry Weather Inspections	<ul style="list-style-type: none"> ▶ Outfall mapping and dry weather monitoring was completed in the Omaha Urbanized Area. ▶ Field investigations resulted in 1 potential illicit discharge from conducting a physical characteristic evaluation at over 600 newly mapped outfalls. No sampling was required to investigate potential illicit discharges.
Illicit Discharges Identified	<ul style="list-style-type: none"> ▶ 7 instances of spills or dumping were recorded within the MS4 ▶ 0 instances of illicit connections were recorded within the MS4 ▶ 0 instances of illegal discharges were recorded within the MS4
Illicit Discharge Enforcement Actions	<ul style="list-style-type: none"> ▶ 1 enforcement actions were required to eliminate illicit discharges within the MS4. ▶ 2 follow up reports were submitted to the Nebraska Department of Environmental Quality to eliminate spill impacts to the NDOR ROW. ▶ District Staff have followed up with additional reports outside of MS4 boundaries to eliminate spills to the road surface and to the NDOR ROW.

IDDE Activities Scheduled for 2012

BMP 1: Dry Weather Inspections

- ✓ Update IDDE Plan with inspection priorities, reporting forms, contact info.
- ✓ Follow dry weather field screening procedures
- ✓ Record incident and inspection dates, results, and observations in a database.

BMP 2: Discharge Investigation and Removal

- ✓ Update IDDE Plan with policies, permits, and procedures for investigating discharges and the Enforcement Response Plan for causing removal of discharges
- ✓ Maintain current and accurate statutes, policies, permits, procedures, Environmental Response Plan (ERP) and written investigation protocol
- ✓ Follow investigation and enforcement procedures and record details required by the IDDE Plan in a database.

BMP 3: Storm Sewer System Mapping

- ✓ Coordinate resources needed to complete mapping of all existing stormwater outfalls.
- ✓ Develop and implement protocol to record all new development and redevelopment plans to include geographic reference for all outfall locations.

4.0 CONSTRUCTION SITE RUNOFF CONTROL

The 2011 measurable goals for Construction Site Runoff Controls are summarized below.

Measurable Goal 4.1 (a) - Update existing specifications and manuals to include erosion and sediment control sanctions to ensure compliance.

- ▶ Continue promoting the use of “Incentive/Disincentive Assessment, Special Provision” when corrective actions are not completed as required in the NPDES Construction Stormwater General Permit.
 - ✓ The Incentive/Disincentive Assessment, Special Provision is included in all new projects let by NDOR.
- ▶ Finalize any changes to the Section 800 (Seeding/Erosion Control) for the updated Standard Specifications Book.
 - ✓ The Roadside Stabilization Unit submitted final drafts of Section 800 specifications in 2010 and 2011 to the Construction Division.
 - ✓ Special Provisions are included on projects as needed.
 - ✓ As permits are re-issued and new permits get introduced, RSU will continue to update the necessary specifications.

Measurable Goal 4.2 (a) - Require construction site operators to implement erosion and sediment control practices.

- ▶ Develop and administer Erosion and Sediment Control for Inspectors Re-certification Class. NDOR anticipates this class will be held at least 6 times to accommodate the number of people needing re-certification in 2011.
 - ✓ The half-day Re-certification class was held 11 times in 2011 with over 250 people attending. NDOR administers this class entirely with RSU staff and is able to schedule as needed throughout the state.
- ▶ Continue offering the Erosion and Sediment Control for Inspectors Certification Class. This class will be held on an as needed basis across the state.
 - ✓ The full-day Inspector Certification class was held 5 times in 2011 with over 180 people attending. NDOR continues to contract with Leo Holm, Retired MNDOT Engineer, to teach the certification course.

- ▶ Distribute remaining copies of the Construction BMP pocket guide to Erosion and Sediment Control course participants and upon request.
 - ✓ Everyone attending the full-day certification training receives a copy of the BMP pocket guide.
 - ✓ Copies are made available during the re-certification class upon request.

Measurable Goal 4.3 (a) - Develop procedures for site plan review to include consideration of water quality impacts.

- ▶ Implement current Stormwater Pollution Prevention Plan (SWPPP) on stormwater permitted projects.
 - ✓ All stormwater permitted projects let through NDOR are required to implement a project specific SWPPP. NDOR SWPPPs are developed by the Roadside Stabilization Unit and are delivered to project staff prior to project start up. Updates were made in 2011 to make the SWPPP more user friendly as requested by field personnel during Compliance Oversight inspections with Roadside Stabilization Unit staff.
- ▶ Implement the Temporary Erosion and Sediment Control (ESC) Plan template and checklist of requirements that must be considered for each Plan before being submitted to the NDOR engineer for approval.
 - ✓ Contractors are required to address items on the ESC Checklist prior to starting work. The Temporary ESC Plan is submitted to NDOR for review prior to or during the preconstruction meeting. This plan must address stormwater management measures needed on day one of project operations and is updated throughout project construction.

Table 3 NPDES Permitted Construction Projects within MS4 Boundary

Project Number – Name	Discharge Authorization Number	Status
34-6(133) – Lincoln West	NER110320	Vegetation Establishment Phase
80-9(851) – 40 th St. Bridge Lincoln	NER111679	Vegetation Establishment Phase
80-9(856) - I-180 - 56th Street, Lincoln	NER110123	Completed
2-6(1027) – 148 th St./N-2, Lincoln	NER111496	Completed
77-2(1060) – Lincoln South	NER111335	Vegetation Establishment Phase
34-6(138) – US34/148 th St. E of Lincoln	NER111485	Completed
55(167) -Lynn Cr Bank Stabilization	NER111811	Establishment
80-9(899) -Noise Walls, Lincoln	NER112151	Establishment
80-9(855) -14th Street Bridge, Lincoln	NER112601	Construction Phase
480-9(778) – I-480 WB/US75 SB Interchange	NER111563	Vegetation Establishment Phase
75-2(173) -Plattsmouth-Bellevue, Platte River and South	NER112735	Construction Phase
34-7(118) -Nebr Approach MO River, Bellevue	NER112498	Construction Phase
275-7(184) - S. Omaha Veterans Bridge	NER110314	Vegetation Establishment Phase
80-9(889) – Missouri River – 13 th St, Omaha	NER111484	Construction Phase
080-1(318)-11– I-80 over Missouri River	NER110002	Construction Phase
35-3(107) – In Norfolk	NER111489	Let in November 2011
275-5(137) – Norfolk West	NER110146	Completed
35-3(105) – Norfolk Southeast	NER111490	Let in November 2011
81-3(1035) – Monroe Ave, Norfolk	NER111355	Completed
34-4(131) – Grand Island South	NER110152	Vegetation Establishment Phase
10-2(114)-Kearney East Bypass, Interchange	NER112599	Construction Phase
92-1(122) – Scottsbluff NW Viaduct	NER111561	Vegetation Establishment Phase
None		
None		
None		

Measurable Goal 4.4 (a) - Develop and implement site inspection process.

- ▶ Utilize ECO-Database for Environmental Compliance Oversight Inspections
 - ✓ The Environmental Compliance and Oversight Database is the primary inspection tool utilized by inspectors for Compliance Oversight Inspections.
 - ✓ ECO-Database was used by a number of people in 2011. Specifically RSU Staff, District Environmental Coordinators, Consultants and a handful of Project Managers across the state are currently using this system to log inspections.

- ▶ Continue to enhance the functionality of ECO-Database to conduct other environmental inspections.
 - ✓ Several enhancements were made to ECO-Database in 2011. They are highlighted below:
 - ✓
 - Project Specific Reporting – ECO-Database now has the capability of tailoring reports to specific projects. In the past all project inspection reports were subject to the same questions regardless of whether or not they had a particular permit or concern on the project. Now inspection reports can be customized to projects based upon applicable permits and environmental commitments.
 - Corrective Action Log – A recently created corrective action log feature allows ECO-D users to log and track all corrective actions on a project. The list remains active and current for the life of the project and inspectors can update the list and date out actions as they are addressed. The corrective action log also allows for any other ECO-Database user to log in and review the corrective actions on a project as they are addressed.
 - Notifications – When project inspections are completed using ECO-D, a notification email is sent to a pre-defined list of people, with an internet link to view the report. Also included in the email notification is a link to view the corrective action log for the project.
 - Inspection Scheduling and Notification – Another new feature built into the current version of ECO-D is the ability to define when certain inspections need to be completed for specific projects. If deadlines are missed, the system can generate a notification email to the project inspector.
 - New Inspection Templates – Inspection templates were initially created to conduct stormwater inspections. Work done in 2011 now allows NDOR to create new templates that may be used for other environmental commitments outside of the stormwater permit.

- ▶ Utilize on-call consultants for project inspections as needed.
 - ✓ Three On-call consulting firms were used for compliance oversight inspections in 2011. Those inspection numbers are summarized in Table 3-2.

Summary of Construction Site Runoff Control Inspections and Enforcement Actions

NDOR follows the inspection frequency requirements listed in the Nebraska Construction Stormwater General Permit. After final stabilization measures are in place and the Notice of Termination (NOT) has been submitted to NDEQ, inspection frequency is reduced to monthly during the 180 day period. In addition, selected projects receive comprehensive Environmental Compliance Inspections conducted by District Environmental Coordinators, consultants and Roadside Stabilization Staff.

Table 4 Summary of Construction Site Runoff Control Inspections and Enforcement Actions

Activity	Summary of Activity	
Construction Site Inspections	Bi-Weekly	<ul style="list-style-type: none"> ▶ NDOR Inspectors conduct inspections on a biweekly basis and after every 0.5" of rain as required by the Construction Stormwater General Permit. ▶ The Falcon recordkeeping system indicated that in 2010, NDOR Inspectors, Project Managers and/or the Operations Division staff completed approximately 220 NPDES Construction Stormwater Permit compliance inspections for construction projects that occurred within the MS4 boundary.
	Environmental Compliance	<ul style="list-style-type: none"> ▶ NDOR utilized on-call Consultants, District Environmental Coordinators and Roadside Stabilization Staff to provide environmental compliance inspections for NDOR projects. ▶ The Falcon recordkeeping system indicated that in 2011, approximately 50 environmental compliance inspections were conducted on construction projects occurring within the MS4 boundary.
Erosion and Sediment Control Enforcement Actions	Permitting Authority	<ul style="list-style-type: none"> ▶ No enforcement actions were taken against NDOR in 2011.

Construction Site Runoff Control Activities Scheduled for 2012

BMP 1: Construction Stormwater Pollution Prevention Plans

- ✓ Maintain Agency Standard Specifications that address construction stormwater BMPs.
- ✓ Enforce contracts that enable the Agency to require temporary erosion and sediment control plans from contractors.
- ✓ Follow checklist and document development and review considerations for SWPPPs and temporary erosion and sediment control plans.
- ✓ Maintain current list of permitted construction sites within the MS4.
- ✓ Maintain the Public Education and Outreach Strategy to reflect current information and targeted messages about Construction SWPPPs.

BMP 2: Construction Stormwater Inspections

- ✓ Maintain ECO Database and paper inspection forms to use for construction stormwater inspections.
- ✓ Maintain Agency construction stormwater Compliance Oversight plan and inspection procedures.
- ✓ Conduct routine, complaint response and Compliance Oversight inspections and document inspection dates, findings, and Corrective Actions required.
- ✓ Maintain the Public Education and Outreach Strategy to reflect current information and targeted messages about conducting Construction Stormwater Inspections.

BMP 3: Construction Stormwater Enforcement

- ✓ Update the Agency construction stormwater Enforcement Response Plan and associated enforcement mechanisms available to the Agency.
- ✓ Maintain current and accurate construction stormwater policies, procedures, permits, Enforcement Response Plan, and project contracts.
- ✓ Follow ERP and document enforcement communication dates, parties involved, actions taken, and resolution dates in a database.

5.0 Post-Construction Site Runoff Control

The 2011 measurable goals for Post-Construction Site Runoff Controls are summarized below.

Measurable Goal 5.1 (a) - Develop procedures for site plan review to include consideration of structural and/or non-structural BMPs.

- ▶ Continue to review and finalize Chapter 3.
 - ✓ The Post Construction Workgroup completed a final draft of NDOR's Drainage Design and Erosional Control Manual's Chapter 3, *Stormwater Treatment Within Municipal Separate Storm Sewer System (MS4) Communities*, in December 2011. The group submitted the document to Section Heads in the Roadway Design Division for a thorough review of the proposed process. The draft was also sent to FHWA for comments. All comments are anticipated to be received by the end of January 2012. The Workgroup will then address any final comments at that time.
- ▶ Review projects for Post Construction Treatment BMPs at Environmental Coordination Meetings.
 - ✓ All new projects are being reviewed for Post Construction Treatment BMPs at Environmental Coordination Meetings.

Measurable Goal 5.1 (b) - Establish cooperative effort to coordinate both planning and design of structural and non-structural BMPs.

- ▶ Maintain partnerships with the Nebraska Stormwater Cooperative, Papillion Creek Watershed Partnership and NeFSMA.
 - ✓ NDOR is maintaining partnerships with these organizations through meetings, conferences and workshops.

Measurable Goal 5.2 (a) - Update existing Specifications, manuals, and Standard Plans to address post-construction storm water runoff from new development and redevelopment projects.

- ▶ Continue to review and finalize Chapter 3.
 - ✓ The Post Construction Workgroup completed a final draft of Chapter 3 in December 2011. The group submitted the document to Section Heads in the Roadway Design Division for a thorough review of the proposed process. The draft was also sent to FHWA for comments. All comments are anticipated to be received by the end of January 2012. The Workgroup will then address any final comments at that time.

- ▶ Develop Treatment BMP Design Guides
 - ✓ Post Construction Stormwater Treatment BMP Design Guides are being developed by FHU Consulting Firm under the direction and guidance of the Post Construction Workgroup. This process did not get under way until late 2011 and NDOR anticipates the majority of the work will be completed in the spring of 2012.
- ▶ Update Maintenance Manual as Treatment BMP Design Guides are finalized. Design Guides will outline maintenance requirements for Treatment BMPs.
 - ✓ Treatment BMP Design Guides are currently under development and will include maintenance requirements. As the guides are completed, RSU will coordinate with Operations Division to include the appropriate language in the Maintenance Manual.

Measurable Goal 5.3 (a) - Communicate specific maintenance requirements for the long-term operation and maintenance of stormwater BMPs.

- ▶ For projects constructed on interstate/freeway sections of state highways, within MS4 boundaries, NDOR will retain maintenance responsibilities for Treatment BMPs. This will be coordinated and tracked through the Roadside Stabilization Unit in coordination with the Operations Division. Additional discussion will occur in 2011 regarding this process.
 - ✓ RSU will track Post Construction Treatment BMPs through a GIS database much like Outfalls are tracked through the IDDE Program. Operations Division will coordinate maintenance requirements with necessary personnel as needed.
- ▶ For projects constructed on non-interstate/non-freeway segments of state highways, within MS4 boundaries, the adjacent MS4 will be responsible for maintenance of Treatment BMPs. The CTAG Post Construction Workgroup will address how this “handoff” process will be coordinated and tracked in 2011.
 - ✓ Chapter 3 establishes points with the design process both in the preliminary evaluation and design stages where discussions with the Adjacent MS4 Community are to occur to identify probable Treatment BMPs and their maintenance issues.
 - ✓ At the end of project construction RSU will initiate NDOR Post Construction Stormwater Form C-Maintenance, which outlines special maintenance requirements for any Treatment BMP located on the project. Also, included with this form will be the corresponding Treatment BMP Design Guide - Maintenance Section, which includes general guidance for maintaining the BMP. This information will be forwarded to the adjacent MS4.

Summary of Post-Construction Site Runoff Control Inspections and Enforcement Actions

Table 5 Summary of Post-Construction Site Runoff Control Inspections and Enforcement Actions

Activity	Summary of Activity
BMP Design Review	<ul style="list-style-type: none"> ▶ In 2011 all projects scheduled to be let in 2013 or later, that occur within NDOR’s MS4 boundary, were reviewed for Post Construction Treatment BMPs.
BMP Field Implementation Inspections	<ul style="list-style-type: none"> ▶ Construction projects are inspected by a NDOR Project Manager and/or Inspector familiar with the design standards and construction methods for current water quality BMPs. Stormwater velocity control and soil stabilization BMPs are checked against project plans and specifications in the field. NDOR also implemented a new Special Provision for projects let in 2010 and later that requires certified inspectors. See below: <i>The Construction Stormwater Management Control - Special Provision, includes the following language: “The Contractor’s NDOR-Certified Erosion and Sediment Control Inspector shall be responsible for ensuring that all BMPs are installed in accordance with NDOR Specifications, Special Provisions, NDOR Standard Plans, or the manufacturers’ recommended installation instructions. The Contractor’s NDOR-Certified Erosion and Sediment Control Inspector shall be capable of reading and interpreting these documents. The Inspector shall be familiar with product and structural BMPs. The Contractor’s NDOR-Certified Erosion and Sediment Control Inspector is required to inspect, assess, and supervise the maintenance of erosion and sediment control BMPs to ensure compliance with the NPDES Construction Storm Water General Permit while preserving BMP functionality.”</i>
Enforcement Actions	<ul style="list-style-type: none"> ▶ No enforcement actions were taken for water quality BMP design, construction, or maintenance.

Post Construction Site Runoff Control Activities Scheduled for 2012

BMP 1: Post Construction Stormwater Treatment BMPs

- ✓ Maintain current Post Construction Stormwater Treatment BMP Guides as references to the Drainage Design and Erosion Control Manual Chapter 3
- ✓ Implement Agency policy and standards for selection, design and maintenance of Post Construction stormwater treatment BMPs
- ✓ Follow procedures adopted for reviewing Post Construction Stormwater Treatment BMPs on all new development and redevelopment projects
- ✓ Maintain current list and information about Post Construction stormwater treatment BMPs installed within the MS4 boundary.

6.0 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

The 2011 measurable goals for Good Housekeeping and Pollution Prevention Program are summarized below.

Measurable Goal 6.1(a) - Perform internal evaluation of NDOR maintenance operations.

- ▶ Perform FRCP audits in NDOR Districts 4 and 6.
 - ✓ A total of six facility audits were performed across NDOR Districts 4 and 6. Locations in these districts span Central and West Central Nebraska. Maintenance facilities audited in 2011 were located in North Platte (2), Lexington (1), Kearney (2), and Grand Island (1). This was the second audit for these facilities since implementation of the FRCP program.
 - ✓ A new supplemental questionnaire was provided during the interviews of the FRCP audit and filled out by staff on site to assess program components, educational needs and general perception of the program.

- ▶ On site evaluations of Good Housekeeping and Pollution Prevention practices will be recorded for facilities receiving an SPCC update in 2011.
 - ✓ District 4 facilities of St. Paul, Kearney (Interstate 80, and Highway 30), Ord, and York were provided with onsite evaluations with their District Environmental Contact. Some of these facilities are outside of regulated MS4 boundaries. The visits focused on Pollution Prevention and Good Housekeeping in addition to SPCC requirements if applicable.
 - ✓ After performing the internal audits, Operations followed up with the NDOR Maintenance Facility in Grand Island for additional training and received a written report from the district maintenance supervisor addressing specific corrective actions and areas of training for facility staff.
 - ✓ In March and December 2011, Operations conducted two separate facility walk through inspections at the District 2 headquarters. The first was due to an email received about erosion issues on the back-slope of the facility and as a follow up to the audit performed at the same facility in 2010. It was decided to allow additional time for facility to implement corrective actions from March walk-through and visually audited again in December. The District Operations and Maintenance Manager observed items of concern during the unannounced December visit. An inspection report of both facility walk through inspections was provided in December to the District Engineer, to the Operations Division Manager, and to the NDOR Deputy Director of Operations. Immediate corrective actions were employed and a third follow up inspection/training is planned in the first quarter of 2012.

- ✓ Activities related to the manufacture of signs on the Operations campus were transferred to State of Nebraska Corrections in 2011. The FRCP developed for the Sign Shop no longer applies.

Measurable Goal 6.1(b) - Develop Operation and Maintenance Standard Operating Procedures for reducing pollutants in storm water runoff from Agency operations.

- ▶ NDOR has begun to use a computerized Maintenance Decision Support System and Mobile Data Collectors to assess deicing materials, weather conditions, rates of application and efficacy.
 - ✓ On September 8, 2011, an Oil Distributor Cleanout Policy was signed by the NDOR Deputy Director of Operations and the Operations Division Manager citing appropriate best management practices relevant to use and cleaning of distributors during field activities.

Measurable Goal 6.1(c) - Establish process to track permanent BMPs.

- ▶ Process has been established via the FRCP program. NDOR will review/update the process as needed in 2011 (e.g. Enterprise Asset Management or Eco-Database).
 - ✓ Due to site specifics with regard to spills/Illicit Discharges on the NDOR right-of-way, development of a spill protocol for the department was initiated in 2011. Development is expected to continue through 2012 as BMPs incorporated will impact many different divisions within the agency.

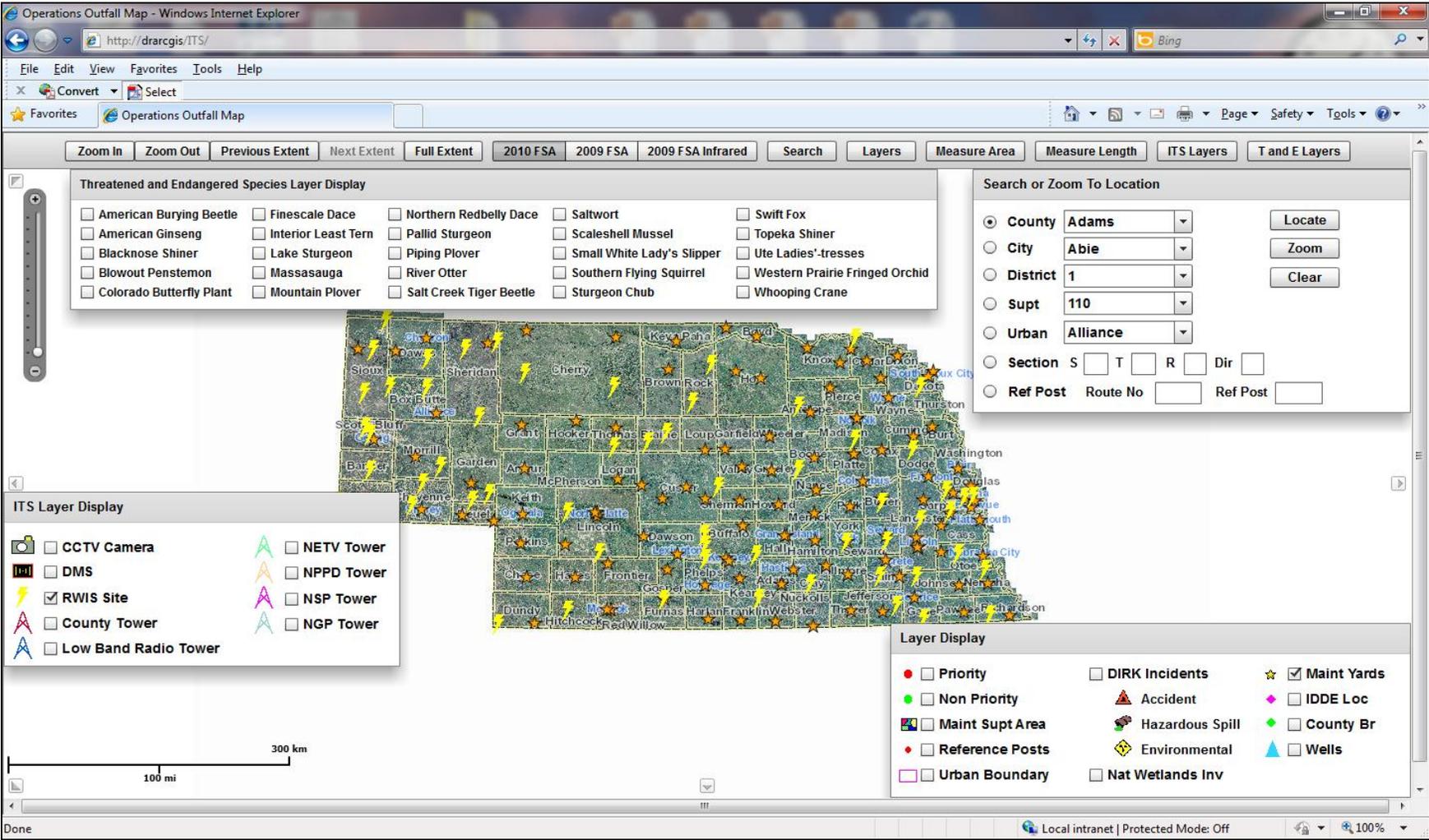
Measurable Goal 6.1(d) - Ensure existing maintenance agreements between NDOR and MS4 communities address the goal of reducing pollutant runoff from municipal operations.

- ▶ Continue involvement with Papillion Creek Watershed Partnership, Nebraska Stormwater Cooperative and Nebraska Floodplain and Stormwater Managers Association (NeFSMA).
 - ✓ NDOR receives meeting notices and agendas for these organizations and staff attend meetings/conferences as needed to present information on the stormwater program and to stay informed of what the other MS4s are doing.

Measurable Goal 6.1(e) Develop Quick Reference Guides for maintenance employees regarding storm water responsibilities.

- ▶ Participant guide will continue to be distributed via the New Highway Maintenance Supervisor/Superintendent Training Course. Updates will be provided as necessary.
 - ✓ A total of 31 NDOR staff consisting of Highway Maintenance Superintendents, Supervisors, Crew Chiefs and Senior Maintenance Workers attended the three day course in January and July 2011. The Environmental module participant guide is included in all course materials and provides a desk reference resource for stormwater and other environmental responsibilities within the department.
 - ✓ The participant guide provides copies, links and numbers of internally developed compliance documents required of environmental programs.
 - ✓ A tri-fold brochure entitled “Environmental Programs and Compliance” highlights regulatory requirements, documentation and brief summaries of programs impacting maintenance and operation activities within the department.
 - ✓ An intra-net interactive GIS map has been developed for Maintenance staff to identify environmentally related boundaries within the state. Access to this spatial information provides a visual tool to identify environmentally sensitive areas (e.g. threatened and endangered species, wetlands, wells) and MS4 stormwater related information such as priority and non-priority outfalls. Additionally, NDOR specific information such as highway and reference posts has been added to link common field knowledge with related stormwater permit information. NDOR anticipates increased use over time as training is continued under the Illicit Discharge Stormwater program. Future environmental reference guidance will be developed and incorporated into the NDOR Maintenance Manual.

Figure 3 Screenshot of New Interactive GIS Map for Highway Maintenance Staff



Summary of Pollution Prevention/Good Housekeeping Inspections and Enforcement Actions

Table 6 Summary of Pollution Prevention and Good Housekeeping Inspections and Enforcement Actions

Activity	Summary of Activity
<p>Facility Runoff Control Plan Site Inspections</p>	<ul style="list-style-type: none"> ▶ Qualified individuals from each facility conduct monthly site-evaluations using the FRCP inspection checklist and corrective action form. Twenty five facilities statewide are actively participating in performing monthly inspections. ▶ FRCP Audits were conducted in District 2 and Operations Headquarters in Lincoln. The Auditors reviewed inspection records, provided reinforcement and guidance for stormwater protection, and identified modifications that were made to each facility's FRCP document.
<p>PP/GH Enforcement Actions</p>	<ul style="list-style-type: none"> ▶ Two maintenance facilities required additional training and enforcement of the FRCP program from leadership in Districts 2 and 4. Operations inspection area leaders were provided with training and guidance to reinforce the importance of the inspection documentation. Areas included Grounds, Fleet, Facilities Maintenance, Surplus, Warehouse, Survey, Bridge/Rotomill, and Electronics and Traffic Engineering Shop.

Pollution Prevention and Good Housekeeping Activities Scheduled for 2012

BMP 1: Maintenance Facility Operations

- ✓ Maintain maintenance facility inventory with a map, routine assessment and periodic audit assessment and investigation procedures.
- ✓ Maintain current site-specific stormwater runoff control plans at all high-priority MS4 facilities.
- ✓ Conduct and record routine inspections and findings in a central database.
- ✓ Conduct audits of MS4 facilities and record evaluation results in a central database

BMP 2: Highway Stormwater Drainage System Inspection and Maintenance

- ✓ Update inspection and maintenance policy for Treatment BMPs and drainage features in the Maintenance Manual.
- ✓ Conduct routine and complaint response inspections and maintain Treatment BMPs, open channels, and catch basins.
- ✓ Track Treatment BMP information including geographic location, inspection dates, observations, communications, and maintenance actions.
- ✓ Review and update enforceable authority to address adjacent MS4 and contractor maintenance of Treatment BMPs and drainage features.
- ✓ Enforce statutes, contracts and agreements for Treatment BMP and drainage feature maintenance.

BMP 3: Highway Maintenance Activities and Operations

- ✓ Develop highway and parking lot sweeping practices to include with NDOR Maintenance Manual.
- ✓ Review Agency maintenance activities and operations conducted within MS4s and update the NDOR Maintenance Manual with pollution prevention practices.
- ✓ Implement Agency maintenance and operation policies.
- ✓ Enforce statutes, contracts and agreements for pollution prevention required of contractors and Adjacent MS4s.

7.0 Additional Requirements

This Section of the Annual Report summarizes NDOR's efforts to comply with additional MS4 Permit requirements that are not specifically associated with the six Minimum Control Measures.

7.1 Evaluation of Compliance and the Appropriateness of Identified BMPs

Part III.C of the MS4 Permit requires NDOR to evaluate SWMP compliance and the appropriateness of identified BMPs.

- ✓ NDOR is in compliance with conditions and requirements of the MS4 Permit.
- ✓ NDOR is on track or for accomplishing year five MCM milestones listed in the SWMP.
- ✓ NDOR is on track with accomplishing the Desired Outcomes for each Minimum Control Measure BMP listed in the SWMP Evaluation and Assessment Plan.

7.2 Proposed Changes to SWMP

Either the Department or the Permittee may propose amendments that are consistent with the requirements in Part III of the Permit for the SWMP or evaluation program at any time. Proposed amendments shall not be implemented without agreement from both the Department and Permittee.

- ✓ No changes are proposed to the current SWMP.
- ✓ A draft SWMP for years 2012-2016 has been drafted and submitted to the Department of Environmental Quality for review.

7.3 Improvements or Degradation in Receiving Waters

- ▶ NDOR is aware that the 2010 Integrated Report was published by NDEQ. NDOR is not aware of any improvements or degradations to receiving water quality that are currently caused by stormwater runoff from highways or maintenance facilities.

7.4 Compliance Assistance from other Entities

- ✓ NDOR continues to partner with the Local Technical Assistance Program (LTAP) of the University of Nebraska to implement statewide stormwater training.
- ✓ NDOR enforces State Statute Section 39-1339, 39-1372, and 39-2105. Under this authority, NDOR will require Adjacent MS4s to implement elements of the local SWMP along portions of the State Highway System that are within their MS4 boundary. NDOR is attempting to coordinate this through Memoranda of Understanding.

7.5 Data Collection and Analysis

Table 7 Current Research Projects (University of Nebraska)

Research Topic	Description	Status
Feasibility of Integrating Natural and Constructed Wetlands in Roadway Drainage System Design	This research project will collect and analyze data on roadway pollutant discharges and the effectiveness of selected established stormwater BMPs. In addition, it will provide improved design guidelines for future BMP applications considering specific suites of roadway pollutants and constraints such as space and safety. The results of this study will be useful for planning, design, construction, and operation of Nebraska's transportation infrastructure and for implementing BMPs so that NDOR can effectively address the requirements of the NPDES Program.	In progress
Establishing Permanent Vegetation after Highway Construction	The objective of this work is to determine the effect of compost blankets and other types of blankets or soil surface treatments on soil movement and establishment of seeding mixtures on roadway shoulders and backslopes. The rapid establishment of the grass mixture on roadway shoulders and backslopes will reduce the likelihood of soil erosion on roadsides. Erosion on roadsides negatively impacts the aesthetics, stability, maintenance costs, and safety of the roadway shoulders and backslopes.	90% Complete, Final Report being Prepared
Fertilizer Effects on Attaining Vegetation Requirements	This project seeks to determine the interacting effects of application rates of N and P on roadside backslopes shaped from fill (with and without mycorrhizae) or stock-piled topsoil on establishment of NDOR's complex seeding mixture(s) (Type A) and soil movement. The expected benefits will be a more thorough understanding of the multiple interactions occurring on the newly installed seeding locations; thereby giving NDOR the ability to adjust project inputs as needed for soil types, project location, and season of installation to best insure the success of the vegetation establishment.	70% Complete, Additional data to be collected in 2012

*SWMP Annual Report
(January 1 to December 31, 2011)*

Research Topic	Description	Status
Stormwater Pollution Treatment BMP Discharge Structures	The objective of the proposed work is to identify an effective outlet structure design for stormwater treatment BMPs (detention BMPs). This objective will be achieved by (1) and extensive review of literature on detention based BMPs and BMP outlet structures, and (2) laboratory testing of structures that are not sufficiently documented but hold promise for being effective. The effectiveness of each structure is assessed based on efficiency for removing suspended solids, long-term reliability and susceptibility to obstruction by debris and long-term maintenance requirements.	In Progress
Development and Evaluation of BMPs for Highway Runoff Pollution Control	The goal of this research is to develop and evaluate BMPs that rely on bioretention, infiltration, and slow conveyance of stormwater, to ultimately provide improved water quality. The first objective is to find the combinations of native plant species and growth media that will be sustainable (cost and maintenance effective), while treating the first 0.5" Water Quality Volume. The second objective is to test the feasibility of using shredded tires as an available porous media in structural stormwater treatment BMPs such as infiltration and bioretention systems (BRSs), as well as aggregate media.	In Progress
Study of Bridge Deck Runoff from NDOR Highways	The objective of this research is to evaluate the quality of bridge deck runoff, and to determine the effects of bridge deck runoff on surface water bodies in Nebraska by evaluating both water and sediment chemistry as well as effects on aquatic life. The goal of this research project is to identify the potential environmental impacts of bridge deck runoff on receiving streams, and to determine design criteria that can be used by NDOR or regulatory agencies to identify when structural controls for bridge deck runoff may be necessary to protect in-stream water quality and aquatic life.	In Progress
Passive Stormwater Samplers for Sampling Highway Runoff from BMPs: Feasibility Study	The objective of this research is to provide an overview and recommendation of samplers that would be optimal for the parameters of this project.	In Progress

7.6 Annual Budget and Expenditures

Table 8 Annual MS4 Budget

	2011 Expended	2012 Budgeted
Education and Involvement	NDOR Staff: \$23,000 MS4 Consultant: \$12,872	NDOR Staff: \$25,000 MS4 Consultant: \$10,000
Illicit Discharge	NDOR Staff: \$20,700 MS4 Consultant: \$1,520	NDOR Staff: \$25,000 MS4 Consultant: \$1,000
Construction Stormwater	NDOR Staff: \$53,000 MS4 Consultant: \$1,125 On-Call Consultants: \$50,000	NDOR Staff: \$60,000 MS4 Consultant: \$50,000 On-Call Consultants: \$100,000
Post-construction Stormwater	NDOR Staff: \$24,500 MS4 Consultant: \$68,653 Research: \$17,000	NDOR Staff: \$25,000 MS4 Consultant: \$50,000 Research: \$280,000
Good Housekeeping	NDOR Staff: \$10,700 MS4 Consultant: \$1,336	NDOR Staff: \$12,000 MS4 Consultant: \$25,000
Program Management	NDOR Staff: \$13,900 MS4 Consultant: \$13,618	NDOR Staff: \$15,000 MS4 Consultant: \$25,000
Regulatory Compliance Support	MS4 Consultant: \$91,768	MS4 Consultant: \$50,000
Total MS4 Program Cost	\$382,992	\$753,000