

NEBRASKA



Good Life. Great Environment.

DEPT. OF ENVIRONMENTAL QUALITY



**Annual Report to the Legislature
2016**

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Front cover photo by Jim Bunstock

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CHAPTER 1:

Agency Overview

The Nebraska Department of Environmental Quality (NDEQ) was created with passage of the Nebraska Environmental Protection Act in 1971. The Department has grown and been given additional responsibilities over the years, but its mission has remained the same — the protection of Nebraska's air, land and water resources. Presently, the Agency is authorized for a staffing level of 217.50 full-time employees.

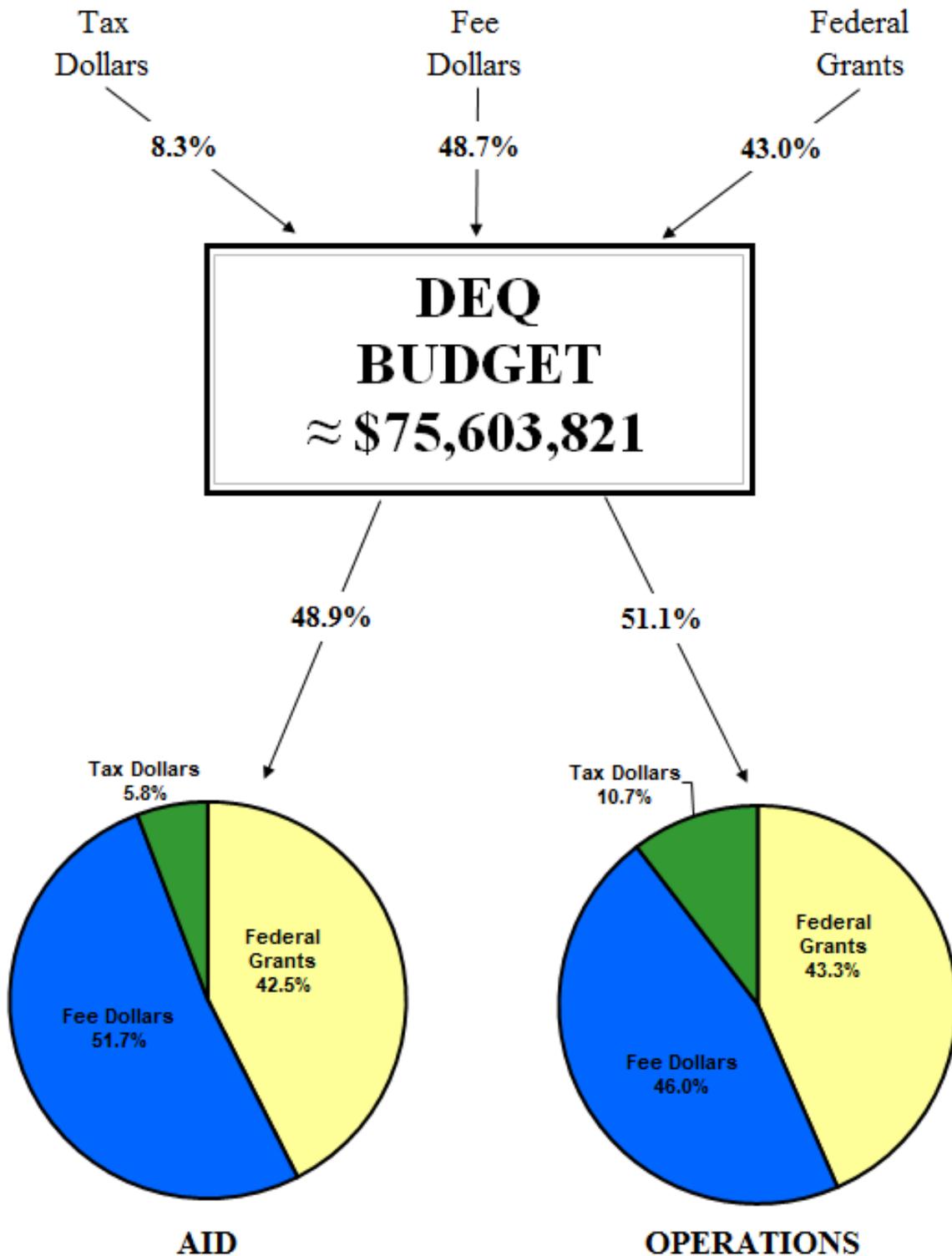
The NDEQ has an FY17 annual budget of approximately \$75.6 million. This includes money from federal grants, state taxes and fees. Of that amount, \$36.9 million is redistributed to other agencies, organizations and individuals in the form of aid (grants and loans).

The table below shows a breakdown of NDEQ funds. The columns listed as aid represent the agency's budget redistributed to other entities as grants and loans. The columns listed as operations represent amounts used for agency operation and contracts for such things as investigations and cleanups.

Funding Type	Operations: \$ Amount	Percent of Operations Budget	Aid: \$ Amount	Percent of Aid Budget
Federal Funds (Grants)	\$16.8 million	43.3%	\$15.7 million	42.5%
State General Funds (Tax \$)	\$4.1 million	10.7%	\$2.1 million	5.8%
Cash Funds (Fees)	\$17.8 million	46.0%	\$19.1 million	51.7%
Total	\$38.7 million		\$36.9 million	

The following graphic depicts NDEQ's FY17 budget by funding source and percent anticipated to be expended by fund type and activity (aid or operations).

FY 2017 Budget



FTE = 217.5

I. Significant Topics in 2016

The following are some of the significant topics, challenges and accomplishments that NDEQ addressed in 2016:

Air Construction Permit Improvement

In late August, DEQ staff and others conducted a week-long detailed “Kaizen” analysis of the Air Construction Permit Process. During the week, staff reviewed their current processes to find ways to get the job done more efficiently.

The purpose of the team’s efforts is to improve the Air Construction Permit issuance process -- from the time applications are received through the issuance of the permit. The objectives are to reduce the complexity of the process by reducing handoffs and decision points, and to implement standards to increase clarity in wording and structure of each permit issued. This will allow permit holders greater ease of implementation, and inspectors greater ease of review.



NDEQ staff discuss methods of streamlining the permit process

Using a medium-sized permit as a basis of analysis, the group concluded that there are currently 110 steps in the process, and 33 “hand-offs,” where the proposed permit goes from one person’s desk to another’s. The group’s analysis led them to a process where the handoffs and steps would be greatly reduced. In best case scenarios, handoffs could be reduced by over half, and steps could be brought down to as low as 22. In some cases involving small to medium permits, this could reduce permit processing time to 65 working days. Large permits will take considerably longer than these projections. Ongoing analysis will help the team judge whether the initial goals are achievable, and they will continually be looking at, and adjusting, their processes and goals.



Staff have a “daily huddle” to assess progress

Subsequent to the week-long analysis, the air construction permit team holds a “daily huddle” to evaluate progress and goals. There are two charts the team reviews and updates at the huddle. The first is a table that evaluates specific weekly and daily goals related to Quality, Delivery, Inventory and Productivity (QDIP). The daily assessment of progress on those issues helps the team determine if they are achieving goals, and identify issues if goals aren’t being met. The other table is called a “swim lane” chart. This chart identifies the permits being worked on by individuals in the team, and charts their progress. This chart is particularly helpful in giving a quick-glance

assessment of the status of permits, and when they can expect permits to be completed.

These efforts are called “Continuous Process Improvement” because the goal is to continue making it simpler, easier and faster as they move forward.

Proposed Incinerator Review Process

In April 2016, NDEQ received a Notice of Intent from Heritage Disposal and Storage to locate a hazardous waste incinerator at their current property located at 345 So. 80th Road, Alda. The site is on the Cornhusker Army Ammunition Plant property west of Grand Island. Heritage intends to install the incinerator to dispose of Department of Defense smoke grenades and related materials.

State laws regarding proposed new hazardous waste treatment, storage and disposal facilities require that state and local entities appoint a 12-member Site Review Committee. The Committee is required to conduct meetings and submit a report to NDEQ before permit applications can be submitted to the state.



The Committee's first meeting was held date in Alda

The Site Review Committee for the proposed Heritage project was formed in April 2016, and they conducted seven public meetings in Alda and Grand Island from April 25 to Oct. 12. The committee subsequently submitted their final report to NDEQ.

In addition to completing the Local Site Review Committee process, the Heritage proposal must be approved by the Hall County Board. Before submitting the Local Site Review Committee report to the Hall County for their consideration, Heritage must submit the application required by the Resource Conservation and Recovery Act to NDEQ. NDEQ will review the application for completeness and when declared complete, NDEQ will provide the Local Site Review Committee report, any response by Heritage to the report, and the RCRA application to the Hall County Board. If the Hall County Board approves the proposal, NDEQ will begin the technical review of the application. If the Hall County Board disapproves the proposal, NDEQ will take no action. For more information, go to: <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Heritage>.

Monthly Performance Metrics

In July 2015, NDEQ initiated a monthly metrics report. NDEQ established the report to measure agency accomplishments, to set annual and longer-term goals, and to evaluate these goals against accomplishments to ensure continuous process improvements. The primary focus in the first reports has been on permits issued, compliance inspections and response to complaints. The monthly report also contains a description of issues and accomplishments that occurred in the previous month.

NDEQ provides the report to the Governor's Office as part of the Governor's ongoing analysis of agencies' performance and to develop goals for greater efficiency. In addition, NDEQ provides this information to staff in the agency for internal review and posts the monthly data on our web site, <http://deq.ne.gov>, under Agency Information.

New Superfund Site Proposed

In September 2016, the Environmental Protection Agency (EPA) published a rule proposing to add a site in Valley, Nebraska to the Superfund National Priorities List (NPL). The NPL prioritizes known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States, and is used to guide the EPA in determining which sites warrant further investigation and cleanup.

The "Old Hwy 275 and N 288th Street" site in Valley, Nebraska is one of eight proposed in the September 9, 2016 Federal Register. The site consists of a groundwater plume contaminated with volatile organic compounds, primarily trichloroethylene, which extends approximately 2.5 miles along the W Reichmuth Road easement.

The NDEQ became involved in the investigation of this site in 2002, and referred the site to the EPA for additional assessment in 2004. During these investigations, it was discovered that groundwater contaminants associated with the site had impacted three domestic and two commercial wells.

The proposal is subject to a public comment period, during which the EPA will address community concerns. If the site listing is finalized on the Superfund NPL, federal money will fund the investigation, and the EPA will seek compensation for site cleanup from potentially responsible parties.

II. 2016 Legislative Summary

The Nebraska Legislature enacted several pieces of legislation in 2016 that had an impact on NDEQ:

LB 328 – This legislation authorizes the department to use the fees collected under the Private Onsite Wastewater Treatment System Contractors Certification and System Registration Act for the investigation, inspection and enforcement related to any private onsite wastewater treatment system. LB 328 also provides that licensed professional engineers and registered environmental health specialists registered in Nebraska can perform work on private onsite wastewater treatment systems in addition to certified professionals.

LB 712 – Repeals statutes that require the State Fire Marshal to register all permanently located aboveground storage tanks used for the storage or dispensing of hazardous substances. The registration program is no longer needed because the federal Emergency Planning and Community Right-to-Know Act (SARA Title III) requires the same information be provided to the Nebraska Department of Environmental Quality (NDEQ). LB 712 also eliminates a restriction on the State Fire Marshal permitting aboveground motor vehicle fuels tanks.

LB 737 – Several provisions of the 2014 Clean Water Act were amended into the Wastewater Treatment Facility Construction Assistance Act to benefit Nebraska communities seeking funds to construct wastewater treatment facilities and sanitary sewer collection systems. LB 737 broadens the types of eligible projects communities can finance through low-interest Clean Water State Revolving Fund (CWSRF) loans and increases the maximum term of a loan from 20 years to a period of 30 years or the useful life of the project, whichever is less. The new provisions also allow the department additional flexibility to choose how to pay for costs to administer the program; it ensures that the CWSRF program can meet its administrative costs in the event federal capitalization grants decrease in the future.

LB 887 – Extends the date for eligible reimbursement claims under the Petroleum Release Remedial Action Act from June 30, 2016 to June 30, 2020. The Petroleum Release Remedial Action Cash Fund was established to help pay the remediation costs of owners and operators of facilities that have leaking underground petroleum tanks. The legislation also extends the department’s authority to respond to these releases reported during the same time period.

LB 1101 – This legislation directs the NDEQ to conduct a study of the state’s solid waste management programs and make recommendations for program updates. The department’s study is to consider whether current waste reduction and recycling programs should be updated or merged, conduct a needs assessment of recycling and composting programs in the state, and explore public-private partnership approaches to help address waste management issues. LB 1101 creates an advisory committee of up to nine members, appointed by the Director, to provide advice regarding the study. DEQ is authorized to hire consultants and special experts to assist with the study. The report findings, including recommendations, is to be submitted to the Legislature by December 15, 2017.

CHAPTER 2:

Administration/Legal/ Management Services

The Administrators, Legal and Management Services provide administrative, legal and day-to-day support services to the effective operations of the Department.

I. Administrators

The Administrators of NDEQ provide oversight and policy direction in all areas of NDEQ's activities. The Administrators include the Director, Deputy Directors, Legal Counsel, Assistant Director, Associate Program Directors, Government Relations Program Manager and Division Administrators. The Director and Deputy Directors are responsible for the overall function and coordination of NDEQ activities.

NDEQ Administrators are responsible for coordination with other local, state and federal agencies. Staff serve on various committees within the state. The administrators are also responsible for coordination and negotiations with the U.S. Environmental Protection Agency. A significant amount of the agency's funding derives from the EPA, and substantial coordination is required. In addition, the agency coordinates certain activities with the U.S. Department of Defense and the U.S. Army Corps of Engineers.

The Director coordinates agency activities with the Governor's Office and the Nebraska Legislature. The Director is responsible for ensuring that NDEQ effectively responds to state legislative activities and actions.

The Deputy Director of Administration serves as the manager of the Management Services Division and is largely responsible for day-to-day administrative activities and Agency operations. The Deputy Director is also given responsibility on a case-by-case basis for coordinating special activities which cross the divisional lines of responsibility.

The Deputy Directors of the Air and Land Division and the Water Division coordinate the various agency programmatic activities.

II. Legal Division

The Legal Division provides legal support to the Director, Agency, and Environmental Quality Council. Legal responsibilities of attorneys in the Division include:

- Preparing legal opinions interpreting federal and state laws and regulations,
- Advising the Director and Agency staff on duties and program responsibilities,
- Preparing administrative orders and other enforcement actions for the Agency,
- Representing the Agency in administrative proceedings,
- Preparing judicial referrals to the Attorney General,
- Serving as hearing officers for public and administrative contested case hearings,
- Drafting and reviewing proposed legislation, rules and regulations,
- Drafting and reviewing contracts, leases, and other legal documents,
- Reviewing other Agency documents, and

- Representing the Director and Agency as requested by the Director.

During FY16, the Director issued 16 administrative orders requiring compliance with environmental statutes and regulations. The Attorney General settled 6 civil judicial cases and judgments were entered for a total of \$87,000 in civil penalties with deferrals possible in many cases for subsequent compliance.

The Legal Division works cooperatively with the Attorney General, Secretary of State, Executive Board of the Legislature, and Governor's Policy Research Office on a variety of interagency functions, including adoption of rules and regulations, and litigation involving the Agency.

III. Management Services

The Management Services Division provides administrative and technical support to NDEQ programs. The Deputy Director of Administration heads the division. The division's staff is divided into six areas — Fiscal Services, Human Resources, Records Management, Information Technology, Public Information, and Grant and Contract Coordination.

Fiscal Services

The Fiscal Services Section is responsible for agency budgeting and finance functions, which includes managing NDEQ spending, purchasing, receipting, accounting and auditing responsibilities. The section has six staff, who offer financial advice and assistance to programs and also conduct financial reviews of grantees.

This Section is supervised by the agency's Budget Officer, who works directly with the State Budget Office in coordinating, compiling and submitting the agency's biennial budget to the Governor. Various reporting mechanisms are monitored throughout the fiscal year to ensure the agency is on track with budgeted expenditures and revenues and to ensure there is adequate appropriations, grant and cash funding to cover agency expenses in the pursuit of its mission.

The Section provides significant staff assistance and support to the State Revolving Fund (SRF) Loan Program in the Water Quality Division. Assistance includes receipting, collections, payment of loan disbursements, grant activity reconciliation and budgeting. The Section also coordinates bond activity with Nebraska Investment Finance Authority (NIFA) and the Trustee – bond issuance, retirement and interest payments. The SRF program requires annual revenue projection reports and financial statements to be audited. The Section produces these reports and coordinates the annual audit.

The Section serves as the financial liaison regarding grants with the EPA. A significant percentage of staff time is dedicated to meeting complex federal government tracking requirements. Given the substantial amount of grant funds NDEQ distributes, it is essential to dedicate staff time to reviewing financial activities of entities receiving grant funds.

The Section also assists collection, tracking and reporting applicable fees for the Integrated Solid Waste Management, Livestock and Title V air emission programs.

Major accomplishments during fiscal year 2016:

- Assisted in implementation of a fully integrated Loan and Grants Tracking System, which provides real time access to State Revolving Fund loan program financial and programmatic information by project.
- Assisted in implementation of an electronic grant application and payment system working with the Electronic Content Management (ECM) platform for the Litter and Waste Grant programs. This system will become functional in fiscal year 2017 for other programs within NDEQ, with the goal to fully integrate the invoicing, routing, coding, approval and payment system within the ECM.
- Successfully completed a fiscal year 2015 audit during 2016, which resulted in a clean financial audit report, with no fiscal findings.

Human Resources

The Human Resources team assists supervisors to recruit, hire, develop, retain, train and reward a high quality, diverse staff.

Human Resources Section consists of three staff members. The team supports agency efforts to provide a working environment that strengthens individual and organizational performance through:

- training
- fiscally responsible compensation and benefits programs;
- progressive human resources policies; and
- targeted career and organizational development initiatives that support NDEQ's mission of protecting the environment.

Specifically, Human Resources consults with supervisors and employees to: process employee pay and benefits; coordinate hiring; conduct new employee orientation and employee exit interviews; training; coordinate NDEQ's medical monitoring program; participate in the Health & Safety Committee; manage the classification and compensation program; and coordinate employee recognition programs. In addition, Human Resources is responsible for monitoring NDEQ's diversity and ensuring equal employment opportunity is an integral part of the daily activities of the agency. Other activities include: providing technical assistance to supervisors concerning performance management and investigations of conduct complaints; maintaining, communicating and developing agency policies; evaluating reasonable disability accommodations; and coordinating reporting requirements of the conflicts of interest provisions of the Nebraska Political Accountability and Disclosure Act.

Records Management/Database Administration

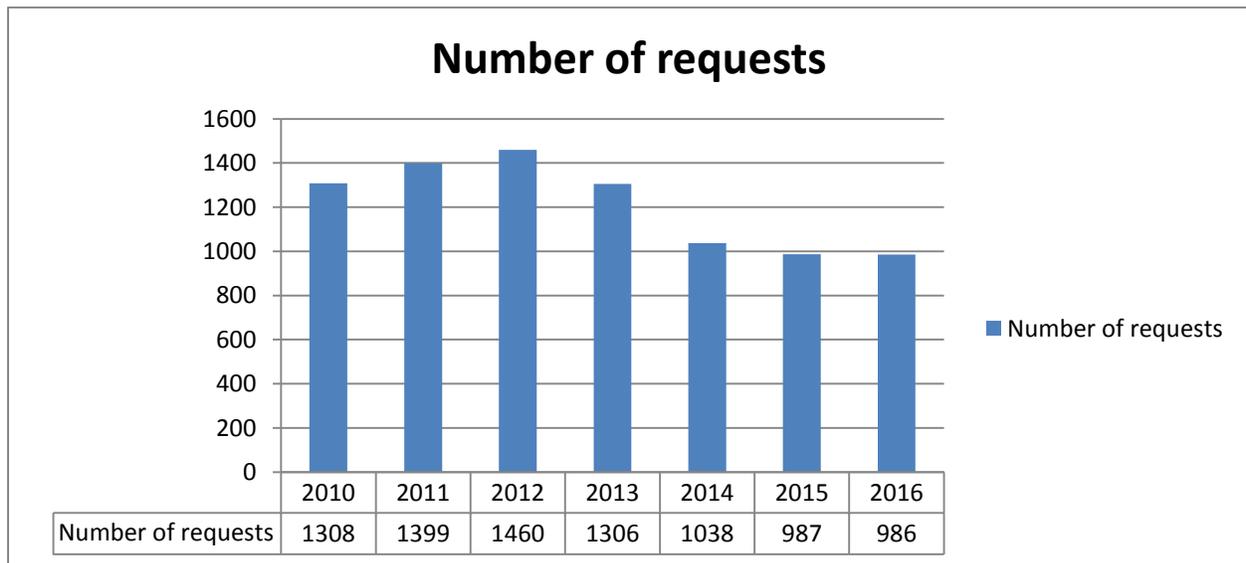
The Records Management Section is responsible for managing the agency's paper and electronic records, centralized mail handling process and other support functions. This includes, but is not limited to: ordering supplies, staffing the main reception and switchboard area, and providing assistance in special projects or requests as needed.

Incoming mail is scanned and indexed into the Enterprise Content Management (ECM) System utilizing OnBase software applications from Hyland Software. Images are routed to agency staff through an electronic workflow process, eliminating the need to route paper documents. Outgoing mail documents are still provided to the Records Section in paper format and then scanned and indexed. Staff can access current facility related documents on their desktop computer through the ECM, the agency Integrated Information System (IIS) Document Tracking System (DTS), or NDEQ's

webpage. Storing document images in the ECM has reduced the number of file folders and file labels purchased; causing a reduction of staff time spent labeling folders and filing documents.

The Section coordinates responses to requests for information from the public, government agencies, private consultants and regulated entities that wish to research the history of environmental activities by the agency. These records requests involve a variety of topics such as landfills, leaking underground storage tanks, ethanol plants, wastewater treatment facilities and hazardous waste sites.

Facility-related document images residing in the ECM were made available to the public through NDEQ’s webpage in December 2012. The change in public accessibility to NDEQ documents means staff increasingly fulfills requests for information by providing instructions to access the images from the Internet. Public records requests have declined as documents are scanned into the ECM.



Staff spends less time gathering and organizing files for review, disassembling and reassembling files, photocopying documents and preparing invoices and packages to mail. The time to respond to public records requests is expected to decline further as new documents are scanned into the ECM. Requests for historical images are handled on a case-by-case basis.

The focus of the Section has been managing records related to facilities and certifications. The ECM has been expanded to facilitate management of other types of documents received and generated by NDEQ, including agreements, payroll, invoice processing, waste grants, legal and other project documents.

Future projects for the Section include an update of written policies and procedures for handling NDEQ records as well as training staff to properly manage the records and information they produce.

Database Administration manages facility data for NDEQ’s Integrated Information System (IIS), resolving discrepancies and providing accurate descriptive and locational information for a database of over 51,000 facilities. A new GIS map application was deployed in late 2012 and is available from the agency web site (<http://deqims2.deq.state.ne.us/deqflex/DEQ.html>). Viewers have the ability to find facilities and to view facility-related documents with this application.

Information Technology

The Information Technology Section provides computer support and information management for all agency locations. Four professional staff members offer guidance and technical support in the acquisition and maintenance of computer hardware and software. They provide support for about 250 desktop computers, about 20 printers, a midrange System I AS/400 computer, various network servers, about 30 mobile devices and software. They also conduct training and oversee telecommunications for the Agency. Four professional staff design, develop, support and provide training for computer programs in supporting the Agency's information management needs and the administration of the Agency's computerized databases. One professional staff person is responsible for managing all of the Information Technology staff, maintaining and updating the agency technology plan and coordinating Information Technology Section activities.

The agency has developed an Integrated Information System (IIS) which is a centralized, shared database containing descriptive, locational, program specific and paper file information for all facilities and other items under the agency's jurisdiction. Nationally, NDEQ is among the leaders within state environmental agencies regarding information integration. Over the past 16 years, the program has implemented EPA grants to improve the network and information systems. These funds have been and continue to be used in efforts to integrate data that is shared among environmental agencies, to provide greater public access to this information and to build additional information systems. In addition, the agency made available its first web-based reporting application at the end of 2003, to replace the more traditional paper-based reporting process.

In 2001, the agency successfully completed a pilot project with other states and EPA demonstrating the exchange of federally required information using eXtensible Markup Language (XML). This was the first successful effort to exchange data using this process. The Agency continues to be involved in the EPA/State efforts to build a National Environmental Information Exchange Network (Exchange Network). When completed, the Exchange Network will provide a consistent method for obtaining environmental information from any participating agency or program in the country.

Since late 2010, the agency has been participating in the Enterprise Content Management Shared Services project with Nebraska's Chief Information Officer and other state agencies. The purpose of the project is to create and store electronic images of the agency's documents, to improve management of and access to public records. A Request for Proposals (RFP) was issued, vendors evaluated, a vendor selected and a contract has been signed. The agency was one of three partners working with the vendor during implementation to demonstrate and accept the requirements of the RFP. As part of the acceptance process, the agency incorporated the ECM into existing business processes and operations. On April 11, 2011, the agency implemented the first project. This project is covered in more detail in the Records Management portion of the report. As support for the project, about two thirds (160) of the agency's PC-based computers were replaced between April and September. Additionally, about 170 nineteen-inch monitors were installed as a second monitor so agency staff could better utilize the agency ECM application. In early 2013, the agency added the last field office to the state network, which provided staff with better access to the ECM.

The application development staff, in cooperation with the Water Division/Surface Water Monitoring Section staff, have been designing and developing a comprehensive Surface water program where staff will be able to generate forms for data gathering, input that data directly into the IIS system. They will be able to access that data and use it to generate reports and export some results directly to the public web page more quickly and in some cases, more accurate.

As an ongoing process, the agency web page is updated to make use of new software capabilities. As part of the process, static Excel files of information are replaced with applications to query the existing data in real time, providing users with better information and eliminating the need for agency staff to create the Excel files on a regular basis.

Public Information Office

The Public Information Office serves as NDEQ's initial source of communication with the public and media. The services of the Public Information Office are used by all divisions of NDEQ.

A primary responsibility of this office is to handle questions from the public and media (newspaper, television, radio and web) regarding NDEQ's activities. Due to the increasing public awareness of environmental issues, the number of inquiries from both media and the general public has increased significantly in the past several years.

The Public Information Office is responsible for the writing and distribution of news releases on a wide range of environmental topics that are of importance to the public. The office is also involved in the production of a number of other publications, including this annual report, brochures, fact sheets and guidance documents.

These publications can be obtained by contacting the Public Information Office or by visiting NDEQ's website, <http://deq.ne.gov>. The website has grown considerably in recent years and provides a wide array of information to the public relating to the agency, including:

Environmental Alerts	NDEQ News	Contact Us/Report a Problem
Rules and Regulations	Publications	Requests for Proposals
Topics of Interest	Program Information	Public Notices
Enforcement Resolutions	Assistance	Cleanups
Compliance	Financial	Maps and Data
Permits and Authorization	Calendar of Events	

An important component of the website is to promote two-way communication. As part of those efforts, the agency's main e-mail address is provided at numerous locations on our website. That e-mail address is: NDEQ.moreinfo@nebraska.gov. The Public Information Office coordinates responses to those e-mails. The site also features "Report a Problem," with a link to the e-mail address to report an environmental issue of concern at NDEQ.problem@nebraska.gov. The site also includes phone information and procedures relating to reporting a spill or complaint.

The agency is moving toward more standardized forms, including some that can be filled online or submitted electronically.

Grants/Contract Coordination

The Grant and Coordination Office assists with federal grant applications and compliance with grant conditions and requirements, particularly reporting requirements. In addition, the office assists with Requests For Proposals, contract development, tracking, management and ensures contracts are kept current and contractors meet contract conditions. This office also provides assistance to the Fiscal Services Section.

Funding of Management Services

The Management Services Division provides essential administrative and technical support to the Department. Some activities in Management Services are program specific, but many are not. Funding for the Division is provided by two methods: 1) The majority of the staff salaries and activities are funded through an overhead charge to the Department's various programs; 2) Program-specific staff time and activities are charged to those programs.

CHAPTER 3:

Environmental Quality Council

The Environmental Quality Council was established through the Nebraska Environmental Protection Act as the body that adopts rules and regulations which set air, water and land quality standards in order to protect the public health and welfare of the state. They adopt regulations that guide the activities and responsibilities of the Nebraska Department of Environmental Quality (NDEQ). In addition, the Governor appoints the NDEQ Director based on candidates recommended by the Council.



The Council has 17 members who are appointed by the Governor to four-year terms. Appointments require legislative approval. Council members are appointed to represent: the food manufacturing industry; conservation interests; the agricultural processing industry; the automobile or petroleum industry; the chemical industry; heavy industry; the power generating industry; crop production; labor; the livestock industry; county government; municipal government (two members, one of which represents cities not of the primary or metropolitan class); a professional engineer; a biologist; a representative of minority interests; and a doctor with knowledge about the human health aspects of air, water and land pollution.

The Council is required by statute to meet at least twice each year. NDEQ publishes notice of these meetings, together with an agenda and a description of proposed regulations to be considered. The Council holds public hearings on the proposed regulations at these meetings. Any interested person may submit written comments on the proposed regulations and/or testify at the public hearing. The Council considers these comments and testimony prior to making a decision on whether to adopt, modify, or deny new state environmental regulations and amendments to existing regulations. The Council can also consider rule-making petitions submitted by the public.

Although the Council is responsible for review and adoption of rules and regulations, it does not have involvement in NDEQ's administrative functions or day-to-day responsibilities. The NDEQ Director is responsible for administration of NDEQ and the rules and regulations adopted by the Council.

Following are two tables. The first lists the council members, the second summarizes Council actions during FY2016.

Council Members

Representing	Council member	Term expires
Agricultural Crop Production	Rod Gangwish Shelton	June 22, 2017
Ag Processing Industry	Douglas Anderson Aurora	June 22, 2019
Automotive/Petroleum Industry	John Dilsaver Ralston	June 22, 2017
Biologist	Mark Czaplewski Grand Island	June 22, 2017
Chemical Industry	Jeremy Buhl Omaha	June 22, 2019
City Government	James Hawks North Platte	June 22, 2019
Conservation	John C. Turnbull York	June 22, 2019
County Government	Hilary Maricle Albion	June 22, 2019
Food Products Manufacturing	Michelle Bucklin Omaha	June 22, 2017
Heavy Industry	John Kinter Norfolk	June 22, 2019
Labor	Robert Hall Wahoo	June 22, 2017
Livestock Industry	Alden Zuhlke Plainview	June 22, 2017
Minority Populations	Mohamed Dahab Lincoln	June 22, 2017
Municipal Government	Lance Hedquist South Sioux City	June 22, 2017
Physician	Ronald Sheppard Callaway	June 22, 2019
Power Generating Industry	Joseph Citta, Jr., Columbus	June 22, 2017
Professional Engineer	Dennis Grams Lincoln	June 22, 2019

**FY 2016
Environmental Quality Council Actions**

Council Meeting Date	Regulation	Action
November 12, 2015	Amendment of Title 132 – Integrated Solid Waste Management Regulations	Approved
	2016 Funding Percent Allocations for the Litter Reduction and Recycling Fund	Approved
	Amendments to the Program Priority System for the Waste Reduction and Recycling Incentive Grants Program	Approved
	Amendment of Title 131 – Rules and Regulations for Wastewater Treatment Facilities and Drinking Water Construction Assistance Program	Approved
	Amendment to 2016 Intended Use Plan and Project Priority List for Clean Water State Revolving Fund and Drinking Water State Revolving Fund	Approved
March 22, 2016	Amendment of Title 128 – Nebraska Hazardous Waste Regulations	Approved
June 14, 2016	2017 Intended Use Plan and Project Priority List for Clean Water State Revolving Fund and Drinking Water State Revolving Fund	Approved
	Amendment of Title 131 – Rules and Regulations for Wastewater Treatment Facilities and Drinking Water Construction Assistance Program	Approved
	Amendment of Title 129 – Nebraska Air Quality Regulations	Approved

CHAPTER 4:

Air Quality Division

The objectives of the Air Quality Division are to achieve and maintain the ambient air quality standards, to protect the quality of the air in the state, including areas that have air cleaner than the standards, and to implement federal and state air quality rules and regulations. Thousands of tons of air pollutants are emitted into the air in Nebraska each year from industrial and other man-made activities. Air pollutants can affect human health, reduce visibility, cause property damage, and harm the environment. The regulated air pollutants of most concern are particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, ozone, lead, and 187 listed hazardous air pollutants.



This solar-powered monitor near Weeping Water, is one of two NDEQ air monitoring sites that are powered totally through renewable energy sources. See page 24 for more information.

The primary air quality programs that help assure healthy air quality are: the construction permit program, operating permit program, emission inventory program, ambient air quality monitoring program, inspection and compliance program, air toxics program, and planning and development program.

Three local agencies – Lincoln-Lancaster County Health Department, Omaha Air Quality Control, and Douglas County Health Department – have accepted, through agreement with NDEQ and direct delegation from the U.S. Environmental Protection Agency (EPA), responsibility for various facets of the air quality program in Nebraska. These responsibilities include air quality monitoring, permitting, and enforcement within their areas of jurisdiction.

Permitting Section

During FY2016, NDEQ proposed revisions to Title 129 to clarify limits applicable to nitric acid plants and eliminate overlapping and conflicting requirements, streamlining compliance for Nebraska's one nitric acid facility. Revisions to Title 129 in FY2015 provided for general construction permits, and seven new air general construction permits were issued in FY2016. The NDEQ has continued its permitting of Title V and Prevention of Significant Deterioration (PSD) sources in accordance with EPA's July 24, 2014, memorandum in response to the June 23, 2014 U.S. Supreme Court decision (*Utility Air Regulatory Group v. Environmental Protection Agency*). This memorandum states that greenhouse gases should only be

regulated under Title V and PSD if the facility triggers permitting due to emissions of other pollutants (e.g., sulfur dioxide, nitrogen oxides, particulate matter).

Construction Permit Program

The Department has maintained a construction permit program for air contaminant sources since the 1970s. Facilities are required to obtain a construction permit before they construct, reconstruct, or modify any air contaminant source or emission unit where there is a net increase in the potential to emit above specified thresholds. The table below provides information relating to construction permit applications received, processed and pending:

Pending July 1, 2015	Applications Received	Applications Processed	Pending June 30, 2016
54	86	79	61

Nebraska also implements the federal construction permit program, Prevention of Significant Deterioration (PSD). The purpose of the program is to protect areas of the state that are cleaner than the ambient air quality standards, while still allowing industrial and economic growth. The PSD program applies to sources of air pollution that emit significant levels of certain types of pollutants. If a source is regulated under the program, the NDEQ conducts additional, more rigorous reviews of their construction permit application to ensure that best available control technology will be used. Best available controls are employed to minimize impacts on the environment. Before issuing a permit, NDEQ must also assure that the source will not cause or contribute significantly to any deterioration of air quality that could make the area potentially vulnerable to violations of the ambient air quality standards. The PSD program also ensures that visibility in nearby national parks and wilderness areas is protected. NDEQ notifies federal land managers of pending PSD decisions. Lastly, the program requires that permitting authorities advise nearby States and Tribes of pending PSD decisions so they may express any concerns they have with potential downwind impacts in their areas.

As a part of its state program, the NDEQ requires significant sources of hazardous air pollutants to control emissions with the best available control technology (Toxics BACT).

NDEQ received large numbers of air quality construction permit applications in FY06-08 associated with new or expanded business ventures across the state, including ethanol plants, power plants, and grain processing facilities. However, applications declined during the slower economy of FY09 through FY12, then increased during FY13 through FY16.

	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Construction Permit Applications Received	55	52	54	61	64	59	86

In FY2016, the Department launched an online application process for air quality general construction permits (including certain emergency engines and certain aggregate processing, asphalt, and concrete plants). This shortened the permitting timeframe to a few days for eligible sources for covered construction-related activities, providing affected industries an avenue to more rapidly respond to a growing economy.

Operating Permit Program

The air quality operating permit program is the result of the Federal Clean Air Act Amendments of 1990 and the passage of LB1257 (1992) by the Nebraska Legislature. Operating permits authorized by this legislation are issued for both large and small sources of air pollution. These permits have a five-year renewable term.

The Nebraska operating permit program offers an innovative alternative for sources that have taken measures to keep their emissions very low. This program is called the Low Emitter Program. NDEQ has general operating permits and permits by rule available for certain source categories, in addition to individual operating permits. The table below provides statistics relating to all applications received, processed, and pending under the operating permit program:

Pending as of June 2015	Operating Permit Applications Received	Operating Permit Applications Processed	Pending as of June 2016
108	42	36	114

Air quality operating permits are issued for five-year terms. Correspondingly, there have been wide variations in the numbers of operating permits up for renewal each year. The following table summarizes air quality operating permit applications received from FY10 through FY16 (applications for all application types, including applications for permit revisions, general operating permits, permit-by-rule, etc.).

	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Number of Operating Permit Applications Received	61	32	43	60	71	32	42

Compliance Section

Ambient Air Quality Monitoring Program

The State of Nebraska operates an ambient air-monitoring network to determine compliance with the National Ambient Air Quality Standards (NAAQS) and State Ambient Air Quality Standards (SAAQS). In addition, the Nebraska network includes a site for

monitoring regional haze impacts that is part of a national program to help protect visibility in our National Parks and Monuments.

Three agencies are involved in the day-to-day operation of the network: NDEQ, Lincoln-Lancaster County Health Department, and Douglas County Health Department. Omaha Air Quality Control (part of the Omaha Public Works Department) also provides technical support for network-related activities.

National standards have been established by the Environmental Protection Agency for the following six pollutants, to protect both public health and welfare:

- Particulate Matter
 - With a diameter of 10 micrometers or less (PM₁₀)
 - With a diameter of 2.5 micrometers or less (PM_{2.5})
- Sulfur Dioxide (SO₂)
- Nitrogen Dioxide (NO₂)
- Carbon Monoxide (CO)
- Ozone (O₃)
- Lead (Pb)

Nebraska has an additional ambient air quality standard for Total Reduced Sulfur (TRS). The TRS standard was adopted by the Environmental Quality Council in 1997 and is a public health-based standard. A TRS monitor previously operated by NDEQ in Dakota City was decommissioned in July 2016.

The Nebraska monitoring network includes sites at which air quality is monitored to evaluate attainment with the standards and other health- and welfare-associated priorities. NDEQ evaluates the adequacy of its monitoring network in accordance with federal regulations each year. Changes may be made to the network due to changes in monitoring regulations, updates to the ambient standards, perceived changes in pollution trends, and/or funding issues. Loss of site access is another consideration that occasionally affects the network.

Most of the sites in the monitoring network evaluate pollutants for which standards are established (i.e., PM_{2.5}, PM₁₀, CO, SO₂, Lead, or Ozone). There are two additional types of sites in the network: Interagency Monitoring of Protected Visual Environments (IMPROVE) and National Atmospheric Deposition Program/National Trends Network (NADP/NTN) sites. (See maps on pages 22 and 23 for locations.)

IMPROVE monitors provide information for studying regional haze that may impact the visibility in listed federal Class I National Park and Wilderness Areas. There is one IMPROVE monitoring site at Nebraska National Forest at Halsey, Nebraska. This site provides data on pollution trends and transport.

The National Trends Network (NTN) of the National Atmospheric Deposition Program (NADP) is a nationwide network of sites that monitor for pollutants deposited by precipitation. The deposition constituents examined include acidity, sulfates, nitrates, ammonium chloride, and base-cations (e.g., calcium, magnesium, potassium, and sodium). There are two NADP/NTN sites in Nebraska: one near Mead and one near North Platte. Both have been

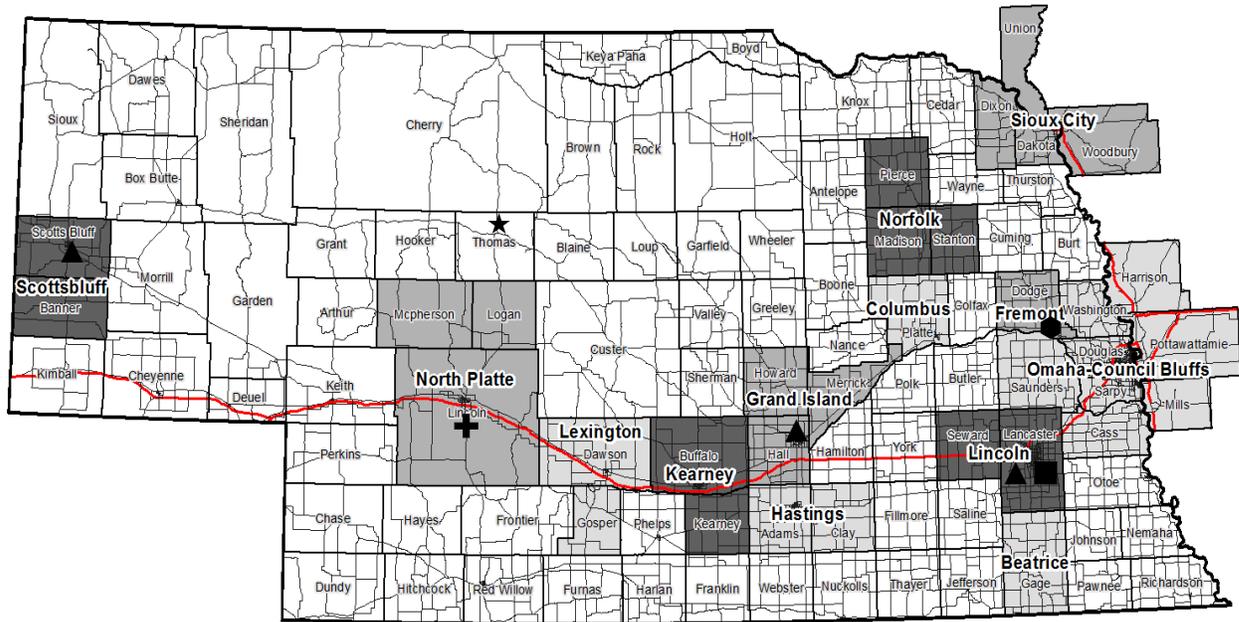
operational for over 20 years. These sites are operated by the University of Nebraska, with analytical and data development support from the NADP. The Mead site was upgraded to include mercury (Hg) deposition monitoring and is part of the NADP/Mercury Deposition Network (MDN). Both sites maintain the NADP monitoring. Additional information about the NADP/NTN can be found at: <http://nadp.sws.uiuc.edu/NADP/>

Monitoring Information On-Line

Ozone and continuous PM_{2.5} data from Lincoln and Omaha is reported hourly to the EPA AirNow system, which makes contemporaneous air quality information available to the public on the web at <http://www.airnow.gov/>. The Douglas County Health Department also participates in the ENVIROFLASH program that allows members of the public to sign up to receive air quality alerts via email.

The Douglas County Health Department also reports daily Air Quality Index (AQI) evaluations on the City of Omaha website. The AQI is a numeric rating of the current air quality and provides the public with a quick and simple means to evaluate current air quality in each metro area.

Nebraska Monitoring Sites Outside the Omaha Metropolitan Statistical Area



- ▲ **PM_{2.5}**
- ▼ **PM₁₀**
- **Ozone**
- × **TRS**
- **Lead**
- ★ **IMPROVE**
- ⊕ **NADP/NTN**

- PM_{2.5}**
Lincoln, 3140 N Street
- PM₁₀**
Grand Island, 2124 North Lafayette Avenue
- Ozone**
Scottsbluff, Highway 26 & 5th Avenue
- Ozone**
1st & Maple Street (Davey)
- Lead**
Fremont

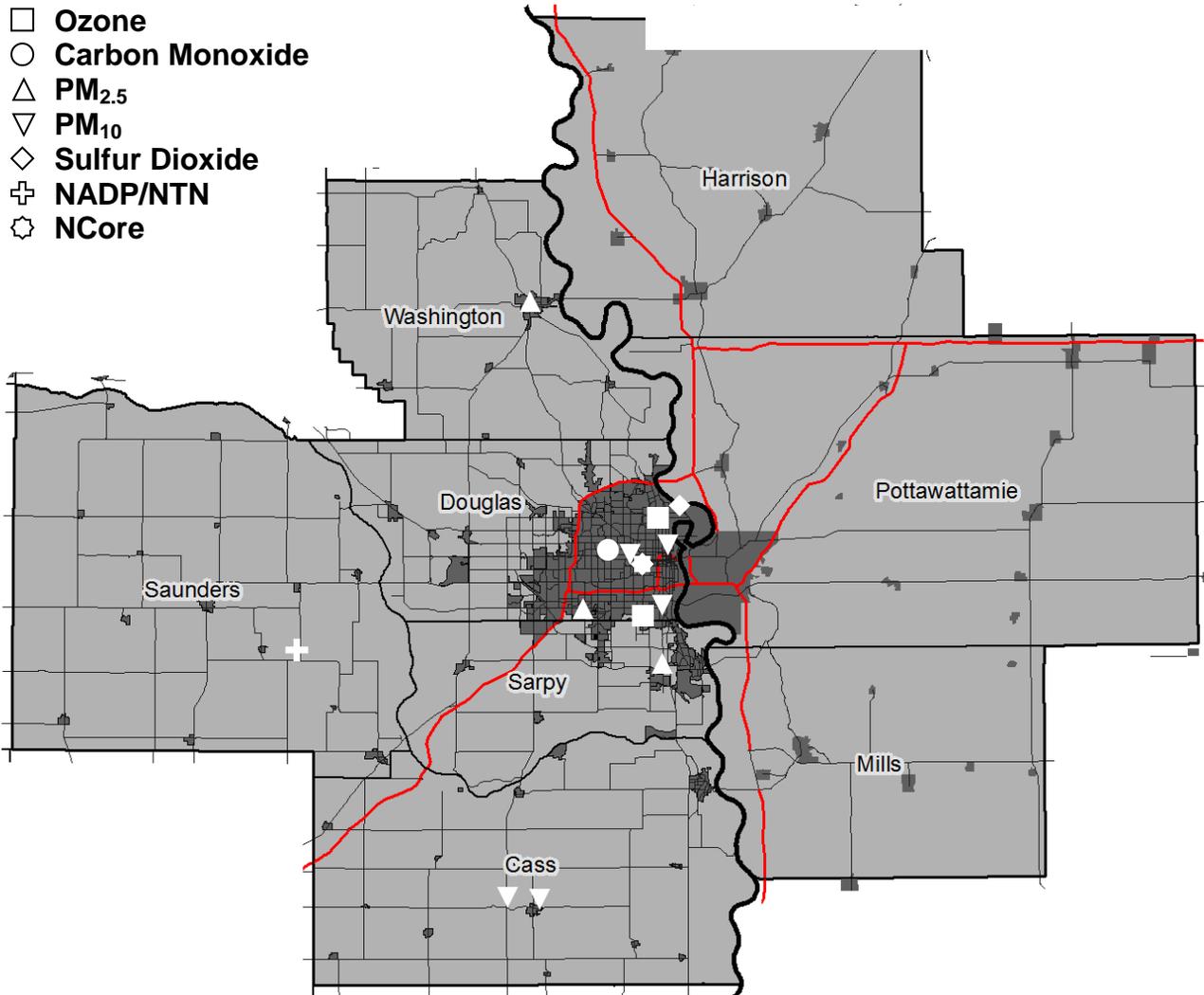
- NADP/NTN**
Maxwell, North Platte Agricultural Experiment Station
- IMPROVE**
Garden County, Crescent Lake Wildlife Refuge
Thomas County, Nebraska National Forest

Multi-county Metropolitan Statistical Areas are indicated by gray shading and bold labels.

The state map above shows the seven monitoring sites located outside of the Omaha Metropolitan Statistical Area. Five of these sites are operated by NDEQ, either directly or under contract. The two sites in Lancaster County are operated by the Lincoln-Lancaster County Health Department with NDEQ oversight. The National Atmospheric Deposition Program site near North Platte is operated by the University of Nebraska.

The Omaha Metropolitan Statistical Area map on the next page shows the location of the 14 monitoring sites located in the Nebraska portion of the Omaha Metropolitan Statistical Area. Eleven of these sites, located in Douglas, Sarpy and Washington Counties, are operated by the Douglas County Health Department with NDEQ oversight. The two PM₁₀ sites near Weeping Water in Cass County are operated by NDEQ. The National Atmospheric Deposition Program site at Mead is operated by the University of Nebraska.

Omaha-Council Bluffs Metropolitan Area Monitor Locations



- | | | |
|--|--|--|
| <ul style="list-style-type: none"> ○ Carbon Monoxide
4102 Woolworth Avenue (NCore Trace Monitor)
7747 Dodge Street, Omaha ◇ Sulfur Dioxide
4102 Woolworth Avenue (NCore Trace Monitor)
1616 Whitmore Street ⊕ NADP/NTN
Mead, Saunders County | <ul style="list-style-type: none"> △ PM_{2.5}
4102 Woolworth Avenue (NCore)
9225 Berry Street
2912 Coffey Avenue (Bellevue)
2242 Wright Street (Blair) □ Ozone
4102 Woolworth Avenue (NCore)
1616 Whitmore
2411 O Street | <ul style="list-style-type: none"> ▽ PM₁₀
4102 Woolworth Avenue (NCore)
19th & Burt Streets
46th & Farnam Streets
2411 O Street
102 P Street (Weeping Water)
5102 Highway 2 (Weeping Water) ☆ NCore
4102 Woolworth Avenue |
|--|--|--|

Renewable Powered Monitoring Sites

The NDEQ operates one monitoring site that is powered totally through renewable energy sources: a solar-powered site near Weeping Water. A site at Scottsbluff High School that formerly was powered by solar and wind turbine was switched to grid power in April 2016. Both sites have successfully operated on renewable energy and are examples of energy conservation. The Scottsbluff site also provides an opportunity for NDEQ to partner with the local high school to educate the students about air quality and renewable energy.

Inspections and Facility Compliance

The Compliance Program is responsible for conducting compliance inspections of air pollution sources, responding to citizen complaints, observing and evaluating emission tests, and the acid rain program.

Consistent with the Nebraska Environmental Protection Act, the Air Quality Division attempts to obtain compliance with environmental regulations first through voluntary efforts. Voluntary compliance has helped bring about a better working relationship with the regulated community without sacrificing environmental quality. However, enforcement actions are pursued by the Agency when compliance issues are serious, chronic, or cannot otherwise be resolved. To further the Department's goals to protect and enhance public health and the environment, in certain instances, environmentally beneficial projects, or Supplemental Environmental Projects, may be part of an enforcement settlement.

2016 Compliance Activity Summary

Compliance Activity	NDEQ	LLCHD*	OAQC*
On-site Inspections	184	84	14
Facility Stack Tests Conducted	105	10	4
On-site Observations Conducted	48	0	0
Continuous Emission Monitoring Audits Conducted	51	9	0
On-site Observations Conducted	10	1	0
Complaints Received	64	63**	38
Burn Permits Issued	144	85	46
Burn Permits Denied	0	1	0
Burn Permits Withdrawn	0	2	0

*LLCHD – Lincoln Lancaster County Health Department; OAQC – Omaha Air Quality Control

**Includes LLCHD complaints re: open burning, fugitive dust, and odors

Grants, Planning, and Outreach Unit

The Air Quality Division's Grants, Planning, and Outreach Section provides support and training resources to permitting and compliance staff, outreach and training to the regulated community and general public, and information and analyses to the Department and other policy makers. The Section includes the air dispersion modeling and emissions inventory functions for the Air Division, along with the maintenance of state air quality regulations, updating the state implementation plans, and providing expert information on National Emissions Standards for Hazardous Air Pollutants (NESHAPS), New Source Performance Standards (NSPS), and National Ambient Air Quality Standards (NAAQS). The Section coordinates local agency activities, as well as negotiates work plans with the EPA. The Section also administers the Nebraska Clean Diesel Rebate Program and the local agreements with Lincoln-Lancaster County Health Department, the City of Omaha Air Quality Control division, and the Douglas County Health Department for their delegated functions in air quality permitting, compliance, and planning.

The Air Toxics Notebook and the NSPS Notebook continue to be valuable online resources for staff and regulated sources. The Grants, Planning, and Outreach Section has also maintained the AirNews listserv, which provides brief information and links to more information about important happenings in the air quality regulatory world.

Emission Inventory and Emission Fees

Each year, the Department conducts an inventory of emissions from major industrial sources and a representative sample of lower-emitting minor industrial sources. Every three years, the Department assists the EPA to prepare a comprehensive national inventory of emissions. The emissions inventory is used to support the planning efforts for national rulemaking and to assess trends in emissions. Emission inventories are due on March 31st each year. NDEQ also uses the emission inventories to support the assessment of annual emission fees. Major sources of air pollution are required to pay emission fees for each ton of pollutant actually emitted during the calendar year. The maximum emission for which a fee is assessed is 4,000 tons per pollutant. For electrical generating facilities with a capacity of between 75 and 115 megawatts, the maximum emission for which a fee is assessed is 400 tons per pollutant. The fees generated are used to support the administration of the air programs.

The Department attempts to set the fee rate at the minimum level needed to pay reasonable direct and indirect costs of developing and administering the air quality permit program. An analysis detailing how the Department arrived at the fee rate is made available to fee payers and is on the NDEQ website. The rate for 2015 emissions was \$71 per ton; the rate for 2014 emissions was \$70 per ton.

Air Quality Issues for Nebraska

Under the federal Clean Air Act, the EPA issues National Ambient Air Quality Standards (NAAQS) for "criteria pollutants". The primary standards are intended to protect public health and secondary standards are intended to protect the environment. States must determine whether they are in attainment of these standards and take corrective action if needed. The standards are reviewed and revised periodically, based on the most recent

scientific information available. Nebraska is currently considered in attainment with all of the National Ambient Air Quality Standards.

Sulfur dioxide (SO₂)

The sulfur dioxide (SO₂) standard was changed from a 24-hour and annual primary standard to a one-hour standard in 2010. To determine attainment with the new standard, the EPA developed an attainment demonstration that includes monitoring and modeling exercises around large SO₂ emitters, and which requires modeling around major emitters in Nebraska. In 2015, NDEQ made its recommendations to EPA concerning attainment designations in the areas of three major emitters; the only one of these not recommended for attainment – Sheldon Station in Lancaster County – was recommended as unclassifiable. In early 2016, EPA confirmed NDEQ's recommended classifications.

Along with the updated 2010 SO₂ standard, in 2015 EPA also finalized the Data Requirements Rule (DRR) to help implement the standard. This standard requires air quality agencies to characterize air quality around sources emitting 2,000 tons per year or more of SO₂ by either pollutant dispersion modeling or air quality monitoring (alternatively, agencies may adopt enforceable emission limits at 2,000 tons per year or less for these sources). The affected sources in Nebraska include Whelan Energy Center near Hastings, Sheldon Station near Hallam, and North Omaha Station. While the Whelan Energy Center area will be characterized through modeling submitted in 2017, NDEQ has proposed monitoring for the areas surrounding Sheldon and North Omaha Stations beginning in 2017 through 2020.

Ozone

On October 1, 2015, EPA issued its final ozone primary and secondary standards; both standards were set at 70 parts per billion. Based upon the most recent data available, it appears that all areas of Nebraska meet these standards at this time. In fall 2016, NDEQ submitted recommendations to EPA to classify the entire state as unclassifiable/attainment based on these data.

Clean Power Plan

EPA released the final rule for its Clean Power Plan on August 3, 2015. The regulation is designed to reduce carbon pollution from power plants. Each state may either develop its own plan to reduce carbon pollution, join with other states to develop multi-state plans, or defer the plan to EPA. A state plan may either directly adopt emission standards for natural gas combined-cycle and coal power plants or be designed to meet a rate- or mass-based statewide goal. NDEQ began meeting with interested stakeholders in 2015 and early 2016 to discuss how to approach the development of a state carbon mitigation strategy in response to the Clean Power Plan.

Nebraska was one of 24 states to join a suit against the Clean Power Plan. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan. The stay remains in effect until the case is decided in the U.S. Court of Appeals in Washington, D.C. or until the Supreme Court decides the case on appeal. Because the stay currently negates the September 2016 deadline for states' initial submittals on the Clean Power Plan and any other plan submittal deadlines until the case is decided and the stay is lifted, NDEQ has halted work on the planning process in the interim.

Regional Haze

EPA's Regional Haze Rule calls for state and federal agencies to work together to improve visibility in national parks and wilderness areas. EPA has issued several amendments to the rule, the most recent concerning Best Available Retrofit Technology (BART) determinations for particular pollutant sources. In July 2011, NDEQ submitted Nebraska's regional haze state implementation plan (SIP) and approximately a year later, EPA issued a partial approval/partial disapproval of the SIP. Specifically, EPA disapproved NDEQ's SO₂ BART determination for Gerald Gentleman Station and the state's long-term strategy for regional haze insofar as it relied on this determination. EPA promulgated a federal implementation plan (FIP) instead. The EPA plan relied on the Cross State Air Pollution Rule (CSAPR), which allots an SO₂ emission budget for participating sources, to sufficiently address reasonable progress toward regional haze goals. Because emissions from Gentleman Station are below the allotted SO₂ budget under CSAPR, no additional measures were required.

EPA has faced challenges nationally on the issue of "CSAPR sufficient for reasonable progress/better than BART", which it had applied in many states. This, along with Nebraska's petition for review of EPA's partial disapproval (which was denied by the 8th Circuit Court of Appeals in February 2016), has prevented the Nebraska SIP/FIP from being finalized. In early 2016, EPA was granted a voluntary remand from the court on Nebraska's specific "CSAPR sufficient for reasonable progress" issue, which allows EPA to further consider the issue. NDEQ expects that EPA will be finalizing a new FIP in late 2016/early 2017.

In summer 2016, NDEQ prepared and took public comment on a five-year progress report on the Regional Haze SIP. NDEQ anticipates that this report will be revised and possibly open for public comment again following issuance of EPA's new FIP.

For more information about the Nebraska air quality program, please refer to the annual Air Quality Reports and the Ambient Air Monitoring Network Plan, both of which are available on the agency's website at <http://deq.ne.gov/> under "Air."

CHAPTER 5:

Land Management Division

The Land Management Division is comprised of two sections and one unit: the Waste Management Section, the Remediation Section, and the Planning and Aid Unit. Both Waste Management and Remediation sections share responsibilities for hazardous waste (RCRA), Superfund, voluntary remediation, and integrated waste management programs. Several waste-related grant programs are administered by the Planning and Aid Unit. Following is a summary of Waste Management Division programs.

Resource Conservation and Recovery Act (RCRA) Program

NDEQ was authorized in 1985 by EPA to administer portions of the Resource Conservation and Recovery Act (RCRA) program. RCRA regulations are incorporated in NDEQ Title 128 - Nebraska Hazardous Waste Regulations, which is updated as the Federal RCRA regulations change.

The purpose of the RCRA program is to ensure proper management of hazardous wastes from the point of generation until final disposal. Activities performed under the RCRA program include:

- helping hazardous waste generators maintain compliance through a Compliance Assistance Program,
- performing compliance inspections and enforcement actions,
- investigating complaints,
- reviewing groundwater contamination monitoring and remediation systems,
- reviewing permit applications and determining whether permits should be issued for proposed treatment, storage, and disposal (TSD) facilities,
- reviewing/approving closure and post-closure plans for hazardous waste storage areas and disposal sites,
- maintaining data systems to support decision-making and making information available to the public.

The Compliance Assistance Program helps Nebraska businesses, governmental entities, and private citizens comply with hazardous and solid waste regulations in a non-enforcement mode. This program works with the regulated community in a partnership promoting hazardous waste minimization and pollution prevention to help waste generators actually reduce the amount of hazardous waste being generated in the state. An additional product of these efforts is to ultimately reduce the amount of regulatory requirements on our industries by helping to bring hazardous waste generators into lower RCRA threshold levels.

Compliance and enforcement activities include investigating complaints and the inspection of hazardous waste generators and transporters, hazardous waste treatment, storage and disposal facilities, and used oil marketers and burners. Other compliance and enforcement activities include conducting comprehensive groundwater monitoring evaluations, and operation and maintenance inspections of sampling and analysis procedures at RCRA sites to ensure that useful and representative data is being collected.

The RCRA program also conducts extensive permitting and closure activities to minimize and prevent the release of hazardous material into the environment. Closure actions are required for treatment, storage or disposal facilities that are discontinuing operations or that have operated without a permit. Permits are required for operating treatment storage and disposal facilities. Post-closure permits are required for treatment storage and disposal facilities that have gone through closure and have remaining contamination.

There is one operating hazardous waste storage and treatment facility in Nebraska: the Clean Harbors Environmental Services, Inc. incinerator near Kimball. This facility has undergone annual performance test burns to demonstrate proper operation since hazardous waste treatment began in 1994. Operational and physical changes at the Clean Harbors incinerator, made to improve the performance of the facility and ensure compliance with applicable regulations, have resulted in numerous permit modifications. In addition, Nebraska oversees two active hazardous waste storage facilities which do not treat hazardous waste.

Corrective action is an important part of the RCRA program and addresses past and present activities at RCRA facilities that resulted in hazardous waste and hazardous constituents being released into soil, groundwater, surface water, and air. Corrective action requires investigation and remediation of the release of hazardous constituents from regulated facilities. These regulations make current and former owners of a property responsible for past mismanagement of hazardous waste. EPA presently operates the corrective action program in Nebraska, and is responsible for regulating cleanups at Nebraska facilities.

Program Funding

Funding for RCRA program activities is provided by an EPA grant, which requires a 25% state match.

Additionally, the Department can charge proposed commercial hazardous waste management facilities a fee to cover expenses for facility siting committee activities. A new facility, the Heritage Disposal and Storage, LLC, Hazardous Waste Storage and Incinerator Facility, has been proposed in Hall County near Alda. The applicant began the facility siting process in April and submitted a fee to pay for the siting committee activities.

The RCRA program collects a yearly fee from commercial hazardous waste treatment and disposal facilities. Currently, one facility in Nebraska performs hazardous waste treatment and disposal. The fees are based on the total yearly volume or weight of hazardous waste treated or disposed. Fees are due March 1, and are remitted to the state general fund.

Currently, the RCRA Program oversees the following active sites:

- 98 Large Quantity Generators (greater than 2200 pounds of hazardous waste generated per month) See map below.
- 373 Small Quantity Generators (between 220 and 2200 pounds generated per month)
- 1361 Conditionally Exempt Small Quantity Generators (less than 220 pounds generated per month)
 - 1 Hazardous Waste Incinerator Facility
 - 3 Treatment, Storage or Disposal Facilities
 - 18 Hazardous Waste Transporters

Location by County of Large Quantity Generators in Nebraska Regulated Under RCRA

Adams	1	Jefferson	1
Boone	1	Kimball	1
Buffalo	3	Lancaster	29
Burt	1	Madison	2
Cedar	1	Otoe	1
Cheyenne	2	Phelps	1
Cuming	1	Platte	4
Dodge	2	Red Willow	1
Douglas	23	Sarpy	12
Franklin	1	Scotts Bluff	2
Gage	1	Seward	1
Hall	2	York	1
Holt	1	Washington	2

Summary of FY2016 Activities		
Activity	State	EPA
Compliance Assistance		
On-site Visits	2	*
Direct Assistance Contacts	540	*
Public Outreach Presentations (total <u>600</u> in attendance)	7	*
RCRA Inspections		
Land Treatment Facilities	0	0
Treatment, Disposal and Storage Facilities	1	0
Comprehensive Groundwater Monitoring Evaluations	0	0
Operation and Maintenance Inspections	2	0
Facility Self-Disclosure	0	0
Large Quantity Generator	13	1
Small Quantity Generator	9	6
Conditionally Exempt Small Quantity Generators	16	4
Transporters	0	0
RCRA Permitting		
Closure Plans Finalized	1	0
Permits Issued/Renewed	1	0
Modifications	3	0
EPA Corrective Action Orders	N/A	0
RCRA Record Reviews		
Financial Assurance	20	2
*Data not available		

Superfund Program

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) became federal law in 1980. CERCLA established what has commonly become known as Superfund to deal with known or suspected contamination at inactive commercial/industrial/military facilities or so-called "uncontrolled hazardous waste or abandoned sites." The nation's most contaminated sites are listed on the Superfund National Priorities List. Nebraska has 16 active and one proposed National Priorities List sites. One site, the Waverly Groundwater Contamination Site, was removed from the National Priorities List on November 20, 2006 as the cleanup goals for the site have been achieved. Twelve of the sites are in the cleanup phase and three sites (West Highway 6 & 281 in Hastings, York PCE/TCE Northeast Contamination site, and the York PCE Southeast Contamination site) are relatively new to the National Priorities List and are in the site study stage. One site, the Iowa-Nebraska Light and Power Co. site in Norfolk was finalized on the National Priorities List in April, 2016. An additional site, the Old Highway 275 and North 288th Street site in Valley, was proposed for the National Priorities List in September, 2016. A final decision on listing this site will be made in 2017. Numerous other non-National Priorities List sites with known or suspected releases of hazardous substances exist in the state, but are not being addressed through the federal Superfund process.

The investigation and remediation of contaminated sites under CERCLA are the primary responsibility of the EPA and other federal agencies. NDEQ participates in the Superfund process by serving as a technical support agency to the EPA and as the environmental representative for the State of Nebraska. Activities in the Superfund Program include:

Site Assessment — The Superfund Site Assessment program identifies, assesses and characterizes sites where hazardous substances are known or suspected to pose a threat to public health and/or the environment. Currently, the sites investigated in Nebraska consist primarily of areas where groundwater contamination has been detected in municipal and private drinking water supply wells or where there is a significant potential for groundwater contamination.

The first site assessment step is called a pre-screening assessment. This step is a review of existing information on a potential site to determine whether a release has occurred that should be evaluated further through the Superfund process. The next site assessment step is called an abbreviated preliminary assessment. This step involves the collection of background information such as property ownership, operational history and geology/hydrogeology, and performing a site reconnaissance. The third step is called a site investigation, which involves sampling environmental media, such as soil, soil gas and groundwater, and evaluating vapor intrusion into indoor air of building structures. In some situations, the preliminary assessment step and the site investigation step are combined. For large and/or complex sites, an expanded site investigation may also be performed to collect additional soil and groundwater samples to further define the extent of contamination. In addition, some sites that have been investigated in the past may be reassessed if new information is obtained that indicates that a threat to public health and/or the environment may exist.

During the past year, NDEQ has performed work on four pre-screening assessments, five abbreviated preliminary assessments, and one vapor intrusion evaluation. The EPA Region 7 Superfund program continues to investigate the Former Northwestern Metals site at 900 T Street in Lincoln that historically operated a lead smelter at the property. A decision on whether nearby residential yard cleanup is necessary is expected in 2017. NDEQ also reviewed numerous site assessments conducted by EPA in the state and provided recommendations on the need for followup action.

NPL Site Management Assistance — The Superfund Management Assistance program provides management and technical support to the EPA at Superfund National Priorities List sites in Nebraska. This assistance includes reviewing technical documents and participating in the Superfund remedy selection process. As the most heavily contaminated sites in the nation, National Priority List sites are

generally large and complex, because they often involve more than one contaminated media and have multiple sub-units with varying contaminants. The investigation and cleanup activities at these sites are organized into several phases, including remedial investigations, groundwater modeling, baseline risk assessments, feasibility studies/engineering cost evaluations, field-scale pilot studies, remedy design/construction, and remedy operation and maintenance. NDEQ also participates in public meetings with citizens and local officials in the development of cleanup plans.

Below is a list of the 16 active and one proposed National Priorities List sites. Below each name is an EPA web address that provides more detailed information about the site. The first 12 sites listed below are currently in the cleanup phase. The West Highway 6 & 281 site in Hastings, the York PCE/TCE Northeast Contamination site, and the York PCE Southeast Contamination site are currently in the site studies phase. The Iowa-Nebraska Light and Power Co. site in Norfolk recently became final on the National Priorities List in April, 2016. An additional site, the Old Highway 275 and North 288th Street site in Valley was proposed for the National Priorities List in September, 2016. A final decision on listing this site will be made in 2017.

The Superfund law seeks to identify those responsible for contamination to pay for the cleanup. If it is not possible to identify the responsible party, or if the responsible party is insolvent, cleanup is paid for by a combination of Federal and State funds. Of the 16 active sites on the National Priorities List, seven are being addressed by the responsible party and nine are being addressed as fund lead by Superfund dollars. For fund lead sites, the State of Nebraska enters into contracts with EPA and agrees to pay 10% of the capital costs of constructing the cleanup system, 10% of initial startup operation costs, and 10% of on-going operation and maintenance costs for the first 10 years of the project. After the initial 10 years, the State pays 100% of the operation and maintenance costs. In January, 2016, the State began paying 100% of the operation and maintenance costs for the 10th Street Site in Columbus. In the next year, the State will begin paying 100% of the operation and maintenance costs for the Ogallala Groundwater Contamination Site and the Hastings Second Street subsite of the Hastings Groundwater Contamination Site.

Active National Priorities List Sites in Nebraska

- Cornhusker Army Ammo Plant (Grand Island)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702020>
- Hastings Groundwater Contamination (Hastings)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701973>
- Lindsay Manufacturing Co. (Lindsay)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701913>
- Nebraska Ordnance Plant (Mead)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702031>
- 10th Street Site (Columbus)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702001>
- Cleburn Street (Grand Island)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701986>
- Ogallala Groundwater Contamination Site (Ogallala)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702287>
- Bruno Coop Association (Bruno)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702000>
- Sherwood Medical (Norfolk)
<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702086>
- Omaha Lead Site (Omaha)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0703481>

Parkview Well Site (Grand Island)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704456>

Garvey Elevator (Hastings)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704351>

West Highway 6 & 281 (Hastings)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704738>

York PCE/TCE Northeast Contamination

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0706105&msspp=med>

York PCE Southeast Contamination

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0706200&msspp=med>

Iowa-Nebraska Light and Power Co. (Norfolk)

<https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0702377&msspp=med>

Proposed National Priorities List Sites in Nebraska

Old Highway 275 and North 288th Street (Valley)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704272&msspp=med>

Federal Facilities — The Superfund Federal Facilities program provides technical assistance and regulatory oversight to the U.S. Army Corps of Engineers in support of site assessment and cleanup activities and military munitions response activities at Department of Defense active facilities and formerly used sites. Active Federal installations include Offutt Air Force Base in Bellevue and Cornhusker Army Ammunition Plant in Grand Island. One hundred known formerly-used defense sites exist in Nebraska that include small former defensive surface-to-air missile sites, bomber target sites, radar and communications sites and other formerly occupied Department of Defense properties. Under the current Defense-State Memorandum of Agreement, investigation and cleanup activities are being performed or planned to be performed at three active sites and 12 formerly used defense sites. Military munitions response activities are being performed at two sites. A military munitions response site is a site that may have the potential for unexploded ordnance, discarded military munitions, or munitions constituents in soil and groundwater that may pose an explosive hazard or threat to the environment.

Nebraska Voluntary Cleanup Program

The Remedial Action Plan Monitoring Act (RAPMA), initially created in 1995, established the Nebraska Voluntary Cleanup Program (VCP). The Voluntary Cleanup Program provides property owners and parties responsible for contamination with a mechanism for developing voluntary environmental cleanup plans that are reviewed and approved by NDEQ. The voluntary cleanup program provides an avenue for businesses to proceed with cleanup of property and an opportunity for regulatory review and oversight that may not be available at the federal level. In addition, the program serves as an alternative cleanup program to the more traditional federal cleanup programs like Superfund or RCRA.

NDEQ has a Memorandum of Agreement with EPA Region 7, which provides federal approval of voluntary cleanup programs. Under this agreement, any site that joins the voluntary cleanup program and successfully completes the cleanup action is assured that EPA will not pursue federal enforcement under CERCLA.

To date, 47 sites have entered the voluntary cleanup program. Currently, 18 sites are active in the voluntary cleanup program. Two sites have been referred to the EPA Superfund program. Five sites

withdrew from the program. Five sites have been terminated from the program due to lack of activity in completing the investigation and/or cleanup. Seventeen sites have successfully completed cleanup requirements and have received "No Further Action" letters from NDEQ.

NDEQ continues to have significant interest from applicants enrolling properties or sites into the voluntary cleanup program. New applicants include the former Omaha Steel Castings facility in Omaha and the former Textron Turf Care and Specialty Products facility in Lincoln. NDEQ also anticipates the International Sensor Systems, Inc. facility in Aurora will enroll in the program in the near future. Investigation activities commenced this year at the former York USDA grain bin site to fully characterize the nature and extent of carbon tetrachloride in groundwater in the York area. Significant cleanup activities are ongoing at the West Haymarket Redevelopment Site South in Lincoln, the former Nebraska Solvents Company site in Grand Island, the Archer Daniels Midland facility in Lincoln, the Vishay Dale Electronics site in Norfolk, and Hoover Manufacturing in Beatrice. Cleanup activities commenced in 2016 at the Nebraska Machine Products site in Omaha and the Lynch Park FMGP site in Omaha. Cleanup activities were completed in 2016 at the two former FMGP sites in Blair and Plattsmouth. Cleanup activities are anticipated to commence in 2017 at the Beatrice FMGP site. Cleanup activities are anticipated to be completed in 2017 at the former Pfizer facility in Omaha, the West Haymarket Redevelopment Site North in Lincoln, and the West Haymarket Redevelopment Site South in Lincoln.

The application fee to participate in the program is \$2,000, and the initial deposit to pay for state oversight costs is \$3,000.

Voluntary Cleanup Program Sites and Status

Site	Location	Date of Entry into RAPMA Program	Status
KN Energy	Holdrege	4/3/95	Completed 5/01/97
Garvey Elevator	Hastings-West	4/13/95	Deferred to EPA Superfund
ASARCO	Omaha-Riverfront	1/8/96	Completed 10/11/01
BNSFRR	Lincoln-N. Havelock	1/17/96	Terminated 12/4/06
Union Pacific RR	Omaha-N. Downtown	1/17/96	Withdrawn 3/7/03
Farmland Industries	Scottsbluff	2/26/96	Completed 7/2/09
Lincoln Journal Star	Lincoln-Downtown	2/26/97	Terminated 1/28/09
Farmland Industries	Hastings-East	6/25/97	Completed 9/2/03
Hastings Area wide	Hastings	12/17/97	Withdrawn 6/23/00
Lincoln Plating Co.	Lincoln	8/17/98	Completed 7/26/12
Witco Corporation	Omaha-North	1/20/99	Completed 6/29/99
BNSFRR	Lincoln-Lot 9 Havelock	4/28/99	Completed 2/20/01
Dana Corporation	Hastings-West	9/27/99	Deferred to EPA Superfund
Ballpark Complex	Lincoln-Haymarket	11/9/99	Completed 9/1/06
Progress Rail Services	Sidney-North	11/22/99	Completed 1/3/06
Brownie Manufacturing	Waverly-Highway 6	4/25/00	Withdrawn 7/19/01

Site	Location	Date of Entry into RAPMA Program	Status
BNSFRR	Lincoln-Havelock Yards	10/26/00	Terminated 12/4/06
New Holland	Grand Island-Southwest	11/9/00	Active
Owen Parkway East	Omaha-Abbott Drive	12/13/00	Withdrawn 11/26/02
Omaha Riverfront Redevelopment - 3 parcels	Omaha-Riverfront	5/18/01	Completed 6/18/03, 12/9/03, 11/9/04
Sanford & Son	Lincoln-North	1/22/02	Terminated 4/18/07
Union Pacific RR Child Development Center	Omaha-N. Downtown	3/5/04	Completed 1/13/12
Vishay Dale Electronics	Norfolk	11/13/06	Terminated 4/20/09
Union Pacific RR Nebraska Solvent Site	Grand Island	2/23/07	Active
Archer Daniels Midland	Lincoln	11/3/08	Active
Plaza North Station LLC	Omaha	7/14/09	Completed 2/11/14
Former Pfizer Facility	Omaha	7/28/09	Active
CVS Pharmacy	Lincoln	10/13/10	Completed 1/28/15
West Haymarket Redevelopment Site North	Lincoln	10/27/10	Active
Izaak Walton Trap Range	Fremont	10/28/10	Completed 4/6/12
Magnolia Metal Corporation	Auburn	3/9/11	Completed 10/31/13
Dettmer Lease Property	Auburn	4/7/11	Active
Hoover Manufacturing	Beatrice	5/27/11	Active
Blair FMGP	Blair	6/28/11	Completed 4/4/16
Plattsmouth FMGP	Plattsmouth	6/28/11	Completed 4/4/16
Former USDA CCC Grain Bin Sites	Multiple Sites	3/16/12	Active
Vishay Dale Electronics	Norfolk	4/2/12	Active
Lewis and Clark Landing	Omaha	4/20/12	Active
West Haymarket Redevelopment Site South	Lincoln	6/11/12	Active
Quality Analytical Services	Omaha	8/2/12	Withdrawn 6/3/14
Nebraska Machine Products	Omaha	9/18/12	Active
Lynch Park FMGP	Omaha	11/20/12	Active
Appleton Electric	Columbus	3/1/13	Active
Magnus Farley	Fremont	8/14/14	Active

Site	Location	Date of Entry into RAPMA Program	Status
Beatrice FMGP	Beatrice	11/17/15	Active
Omaha Steel Castings	Omaha	4/26/16	Active
Former Textron Turf Care and Specialty Products	Lincoln	Under review	Under review

Brownfields Assessments and Cleanups — A Brownfields site is a vacant or under-used industrial or commercial property where expansion or redevelopment is complicated by unresolved contamination concerns. The Voluntary Cleanup Program performs assessments and cleanups at Brownfield sites in Nebraska. These assessments and cleanups are performed by NDEQ, typically with federal funds, at no cost to interested parties in Nebraska communities. A Brownfields assessment is a preliminary investigation to evaluate the environmental conditions at a property, similar to a Phase I and Phase II Environmental Site Assessment. The Brownfields assessment can also include surveys of existing building structures on the property for the presence of lead-based paint or asbestos. Cleanups can involve a variety of measures that are implemented to contain and reduce contamination at a site. During the past year, NDEQ has performed four Phase I assessments, six Phase II assessments, and three asbestos surveys. In addition, NDEQ provided partial cleanup assistance at two sites for removal of asbestos prior to building renovation or demolition.

Brownfields Program Enhancement and Public Outreach — Program enhancement and public outreach are key components that serve to educate the public on what a brownfield is and promote how our program can be used by communities for economic development. Workshops are arranged with a goal to increase knowledge and understanding of the environmental stigma attached to brownfield properties and how our resources can serve as a catalyst to bring these properties back to productive reuse. These workshops serve to connect stakeholders of Nebraska communities with resource providers and consist of presentations from a variety of people that play an important role in economic development. In the past year, NDEQ organized two brownfield resources workshops: one in Lincoln and one in Kearney. In addition to workshops, the Brownfields Coordinator was invited to speak about NDEQ resources at a Redevelopment Resources for Panhandle Communities workshop in Scottsbluff and at a Village of Taylor board meeting. These outreach activities sparked an onset of brownfield assessment and asbestos abatement applications. Upcoming promotional events include an NDEQ sponsored workshop to be held in Norfolk in October and a presentation to be given at an upcoming Southeastern Nebraska Resource Networks (SERN) quarterly meeting.

Program enhancement activities initiated this year include updates to the Voluntary Cleanup Program Guidance Document and development of a new guidance document on management strategies for addressing free product at cleanup sites. In addition, a state-wide inventory is being conducted of facilities that may have used or produced perfluorinated alkyl acids such as perfluorooctane sulfonates (PFOS) and perfluorooctanoic acids (PFOA) which are considered emerging contaminants that can have adverse health effects if found in drinking water supplies.

Solid Waste Program

Solid Waste regulations are incorporated in NDEQ *Title 132 - Integrated Solid Waste Management Regulations*. The purpose of the program is to ensure proper management of solid waste. Solid waste includes municipal solid waste typically collected and disposed in municipal landfills, and other non-hazardous waste. The regulations provide technical criteria for land disposal areas and solid waste processing facilities.

Duties assigned to this program include: 1) Permit issuance, renewal and modification; 2) Response to inquiries related to facility operations; 3) Compliance inspections and enforcement actions; 4) Investigation of citizen complaints; 5) Alternate waste management method approvals; 6) Groundwater investigations and groundwater/soil remediation projects for permitted and non-permitted facilities; 7) Gas emissions monitoring related to landfills and other permitted sites; 8) Closure inspections and monitoring of closure and post-closure activities; 9) Conducting public information sessions and hearings related to permits; 10) Financial assurance review and monitoring compliance; and 11) Assisting regulated facilities and the general public in recycling, re-use and proper management of waste-like materials.

The program regulates municipal solid waste disposal areas (landfills), construction and demolition disposal areas, fossil fuel combustion ash disposal areas, industrial and delisted hazardous waste disposal areas, and land application sites for repeated disposal or treatment of special wastes. In addition, solid waste processing facilities, such as compost sites, material recovery facilities and transfer stations, are regulated by this program.

Permit modification requests are regularly submitted by permitted facilities. Response to the modification requests are particularly time-critical since the facility may need to expand or construct new cells in order to meet their disposal capacity needs and continue operations.

The waste management program coordinates with other NDEQ programs to ensure that permits issued include adequate protection of all environmental media. The requirements in solid waste permits include protection against excessive emissions of landfill gas to the atmosphere, storm water runoff controls and restrictions on accepting hazardous waste for disposal at a landfill.

Currently, the Solid Waste Program oversees the following facilities, by type:

Total Permitted Facilities in FY 2016	
Municipal Solid Waste Disposal Areas (Landfills)	23
Solid Waste Compost Sites	8
Transfer Stations	38
Materials Recovery Facilities	4
Construction & Demolition Waste Disposal Areas	31
Delisted Waste Disposal Area	1
Processing Facility	1
Fossil Fuel Combustion Ash Disposal Areas	8
Emergency Carcass Disposal	0
Total	114

The following table indicates the number of inspections, complaints and permitting-related activities that the program was involved with in FY2016:

Summary of Activities: FY2016	
Compliance	
Facility Inspections (General)	116
Facility Closure Inspection	1
Facility Construction Inspections	2
Facility Comprehensive Renewal Inspections	11
Complaints Received	59
Complaints Investigated	59
Complaints Closed	58
Permitting	
New Permits Issued	0
Permit Renewals	18
Major Permit Modifications	7
Public Hearings	1
Permits Transferred	0
Financial Assurance Reviews	148
Facilities Closed	2

Assessment Monitoring and Remedial Measures

All solid waste landfills accepting municipal solid waste, industrial waste, delisted hazardous waste and fossil fuel combustion ash are required to conduct groundwater monitoring. The purpose of the groundwater monitoring is to detect any release of contaminants from the facility that may impact groundwater quality. A phased approach is used from the initial detection of a potential release to making decisions on cleanup actions after groundwater contamination has been fully investigated.

The first phase is detection monitoring. During this phase, a landfill will monitor for a discrete number of contaminants that would be indicative of a potential release from the facility. If one or more of the parameters being monitored exceed background levels, the facility then begins assessment monitoring. During assessment monitoring, a landfill will monitor for a more extensive list of contaminants. During FY2016, assessment monitoring continued at ten active and two closed municipal solid waste disposal areas and ended at one closed municipal solid waste disposal area.

If during the assessment monitoring phase, contaminant concentrations are detected above a groundwater protection standard, the landfill may then be required to characterize the nature and extent of the release and if necessary assess and conduct remedial measures. In FY 2016 remedial measures continued at one closed site, were initiated at two active sites and were completed at one close site.

Accomplishments for FY2016 included 1) termination of post-closure care at the Minden Landfill following a successful demonstration by the facility that the remaining wastes and groundwater contamination pose no continued threat to human health and the environment; and 2) completion of remedial measures at the closed McCook Landfill.

Title 118 Groundwater Investigations and Remedial Actions

Several municipal solid waste disposal areas that closed prior to 1993 have conducted groundwater investigations and remedial actions pursuant to NDEQ *Title 118 – Groundwater Quality Standards and Use Classification*. In FY2016, groundwater investigations continued at three sites and remedial actions continued at seven sites.

Financial Assurance and Fees

All permitted solid waste landfills are required to provide financial assurance for closure and post-closure maintenance and monitoring. All privately-owned permitted solid waste processing facilities are required to provide financial assurance for closure.

Program Funding

The Waste Management Section collects permit fees and annual operating fees for all solid waste management facilities. Quarterly disposal fees based on cubic yards or tonnage are collected from all municipal solid waste landfills as well as transfer stations moving waste for disposal out of state. Fifty percent of the quarterly disposal fees are redistributed as grants and for administration of the Waste Reduction and Recycling Incentives Grants Program and fifty percent of the quarterly disposal fees are utilized for costs of administering the solid waste program and for investigation and remediation of contamination from solid waste facilities and for other statutorily authorized activities.

Waste Tire Management Program

NDEQ also administers the waste tire management program. Approved beneficial uses of waste tires are outlined in NDEQ regulations. Waste tire haulers are required to obtain individual permits annually and are required to post financial assurance. Financial assurance is designed to provide adequate funds to clean up any waste tires that are illegally disposed by the transporter.

Waste tire management facilities (except tire dealers) are allowed to accumulate up to 500 tires without further requirements, other than mosquito control and fire prevention measures. Speculative accumulation of more than 500 waste tires is prohibited.

Compliance assistance is an important aspect of this program. Program activities include responding to telephone inquiries, letters and contacts from other states, developing guidance documents, conducting site visits and providing technical advice. NDEQ has developed guidance documents to explain the proper use of waste tires for blow-out and bank stabilization. Direct financial assistance is also available through the Waste Reduction and Recycling Incentives Grant program, which is described later in this chapter.

Waste Tire Permit Totals, FY2016	
Permitting	
Renewed Hauler Permits	21
New Permits Issued	4
Financial Assurance Reviews	14

The waste tire compliance assurance program includes facility inspections, complaint investigations and appropriate enforcement actions. Compliance activities are included in the summary of activities for the Solid Waste Program.

Planning and Aid

Waste Planning and Aid includes the following programs: the Waste Reduction and Recycling Incentive Grants Program; the Litter Reduction and Recycling Grant Program; the Illegal Dumpsite Cleanup Program; and the Landfill Disposal Fee Rebate Program.

Main responsibilities of the Planning and Aid Unit include:

- Oversight and review – The Unit reviews grants submissions; performs compliance inspections; monitors the activities, budgets and equipment purchases of grantees; and conducts quarterly performance reviews.
- Outreach – The Unit promotes the availability of grant funding, coordinates the ranking process, coordinates grant awards and provides integrated waste management information to the public.

New Online Grant Application and Reporting Processes

In FY2014, applications for the Waste Reduction and Recycling Incentive Grants Program and the Litter Reduction and Recycling Grant Program were converted from paper-based to an online process. Applications are now filled out and submitted on NDEQ's website. The reporting and reimbursement functions for these two grant programs were converted to an online process in FY2015. For FY2017, two more applications will become available online: (1) Deconstruction of Abandoned Buildings and (2) Cost-sharing for Civil Engineering Uses of Scrap Tires. These changes have resulted in time and material savings to both NDEQ and the grant program recipients. Online information can be found by going to NDEQ's web site at <http://deq.ne.gov>. Select the "Land and Waste" tab and then select the "Waste Planning and Aid Programs" tab.

New Legislation

LB 1101, passed in 2016, directs the Department of Environmental Quality to conduct a study to examine the status of recycling and solid waste management programs operated by the department. The study will look at the current litter, waste reduction and recycling programs and conduct a needs assessment with regard to recycling and composting programs in the state. Potential funding sources, including public-private partnerships, will also be included in the study.

LB 1101 authorizes NDEQ to create an advisory committee comprising no more than nine people. The committee will provide a report of its findings to the Legislature by December 15, 2017.

Expected Service Life

The Planning and Aid Unit grant programs utilize an expected service life procedure for grant-funded equipment. The expected service life determines how long the grantee is responsible for reporting equipment status to NDEQ and how long NDEQ maintains an interest in the equipment.

An expected service life is assigned to all equipment purchased with grant funds (in whole or in part) that has a value of \$1,000 or more per item. Equipment costing less than \$1,000 can be assigned an expected service life on a case-by-case basis. Purchase of equipment is documented at the time of purchase. When the grant is closed out, the grantee is provided a sticker to properly identify the equipment and is notified of the length of the expected service life.

Waste Reduction and Recycling Incentive Grants Program

In 1990, the Nebraska Legislature passed Legislative Bill 163, the Waste Reduction and Recycling Act, which created the Waste Reduction and Recycling Incentive Grants Program.

There are three sources of revenue for this program:

- A business fee on sales of tangible personal property, which generates about \$500,000 annually.
- A \$1 per tire fee on the retail sale of new tires in Nebraska, which generates about \$1.9 million annually;
- Fifty percent of the \$1.25 per ton disposal fee on solid waste disposed of in permitted landfills, which generates approximately \$1.2 million annually for grant awards.

The Waste Reduction and Recycling Incentive Fund provides grants to assist in financing sound integrated waste management programs and projects. These programs and projects may include but are not limited to: recycling systems; market development for recyclable materials; intermediate processing facilities and facilities using recyclable materials in new products; yard waste composting and composting with sewage sludge; waste reduction and waste exchange; household hazardous waste programs; the consolidation of solid waste disposal facilities and use of transfer stations; and incineration for energy recovery. A portion of the grants is also obligated to fund scrap tire recycling or reduction projects and a portion of the grants are available to smaller cities and counties for abandoned building deconstruction.

Fund Summary Waste Reduction and Recycling Fund July 1, 2015 - June 30, 2016

Fund Balance June 30, 2015	\$5,118,826
Revenues:	
New Tire Fees	\$1,579,417
Business Fees	\$657,604
Solid Waste Disposal Fee	\$1,043,010
Interest, Grant Returns	\$117,556
Net Collections for Year	\$3,097,587
Expenditures:	
Administration	\$341,384
Grant Funds Expended*	\$4,278,783
Total Expenditures FY 2016	\$4,620,167
Fund Balance June 30, 2016	\$3,596,249

* Because grants funds are expended on a reimbursement basis, total grant funds expended in a fiscal year will differ from the amount of grants awarded in that fiscal year.

Summary of Activities - For FY2016, NDEQ awarded \$5,536,014 for Waste Reduction and Recycling Incentive Grants to 165 projects. This is an increase of over one million dollars from last fiscal year. Twenty four of these grants were awarded from the Business Fee category (\$1,338,426), 13 were awarded from the Disposal Fee category (\$2,116,399), and 128 received grants from the funds prioritized for scrap tire projects (\$2,081,189). The following lists indicate the locations across Nebraska that received funds.

Waste Reduction & Recycling Grants for FY2016

Business Fee \$ 1,338,426 24 grants, including, 3 statewide, 3 regional
 Disposal Fee \$ 2,116,399 13 grants, including, 0 statewide, 4 regional

Business Fee

Ceresco	Lincoln 3
Chadron	North Platte
Columbus 2	Oakland 2
Falls City	Ogallala
Fremont	Omaha 6
Gretna	Scottsbluff
Kimball	Mexico, MO

Disposal Fee

Fremont	Omaha
Gering	South Sioux City
Lexington	Valentine
Lincoln 5	Wayne
McCook	

Deconstruction Grants for FY2016

There were no deconstruction grants applied for or granted in FY2016.

Scrap Tire Grant Awards for FY 2016

122 local grants and 5 regional grants and 1 statewide grant for an award total of \$2,081,189.

Albion, City of	KKO Invest/Going Vertical - Omaha
Arcadia Public Schools	Kloefkorn Elementary PTO - Lincoln
Atkinson, City of	Knox County
Axtell Community Schools	Little Blue NRD (2)
Bassett, City of	Loomis, Village of
Beatrice, City of	Lower Elkhorn NRD (Regional)
Bellevue, City of	Lower Loup NRD (2) (Both Regionals)
Bierman, Mike - Falls City	Lower Republican NRD (3)
Blair Community Schools	Madrid (2) , City of
Bloomfield, City of	Milford Public Schools
Cairo, Village of	Millard Public Schools
Cambridge Public Schools	Mullen, Village of
Cass County Dept. of Roads	Nebr. Game & Parks Commission (Statewide)
Cedar County	Neligh-Oakdale Schools
Central City, City of	Nemaha County
Central City Public Schools	Neumeister, Justin - Auburn
Central Valley Public Schools - Greeley	Norfolk Catholic School
Chase County	North Central Dev. Center - Ainsworth
College View Academy - Lincoln	North Platte, City of
Columbus, City of	North Platte Public Schools (2)
Concordia University - Seward	Northeast NE Shooting Assn. - Norfolk
Creighton University - Omaha	Nuckolls County
Crete, City of	Omaha, City of
Dakota County (2)	Omaha Public Schools (10)
Davenport, City of	Ord Public School
Diller-Odell Public Schools	Papio-Missouri River NRD
District 145 Eagle Elementary	Paxton Consolidated Schools
District 145 Hamlow Elementary - Waverly	Pierce County
Dixon County	Prague Improvement & Maintenance
Elkhorn Public Schools (2)	Ralston Public Schools (2)
Elm Creek Public Schools	River City Recycling Omaha
Falls City Sacred Heart	St. Johns' Lutheran School - Alliance
Fillmore County	St. Johns' Lutheran School - Seward
Fremont, City of	St. Paul, City of
Fremont Public Schools (3)	Saline County
Frontier County	Sandhill Plastics - Kearney
Gage County	Saunders County
Gothenburg Public Schools	Sherman County
Hastings Family YMCA	Shickley Public Schools
Havco Kids One, Inc. - Lincoln	Shickley, Village of
Head Start CFDP - Hastings	Sidney, City of
Heartland Community Schools - Henderson	South Central NE USD #5 - Lawrence
Holdrege Public Schools	Stapleton, Village of (Regional)
Humphrey Public Schools (2)	Stella, Village of
Hyannis, Village of	Sterling Public Schools
Jefferson County	Superior Public Schools
Johnson County	Solid Waste Agency of NW Nebr. -Chadron (Regional)
Kearney, City of	Trenton, Village of
Kearney County - Minden	UNL Athletics - Lincoln
Kearney Public Schools	Valentine Community Schools
Keep Alliance Beautiful (2)	Van Winkle, Shauna - Beatrice
Kenesaw Public Schools	Wayne, City of
Kidnect Child Development - La Vista	
Kimball, City of	

Litter Reduction and Recycling Grant Program

The Litter Reduction and Recycling Grant Program has been in existence since 1979. Its purpose is to provide funds to support programs to reduce litter, provide education and promote recycling in Nebraska.

Funds from this program are provided from an annual fee assessed to manufacturers, wholesalers and retailers having gross receipts of at least \$100,000, on products that commonly contribute to litter. For manufacturers, the annual litter fee is \$175 for each million dollars of products manufactured. The annual litter fee for wholesalers and retailers is \$175 for each million dollars of sales made in the state. Approximately \$1.8 million is received annually.

The annual litter fee is imposed on products in the following categories:

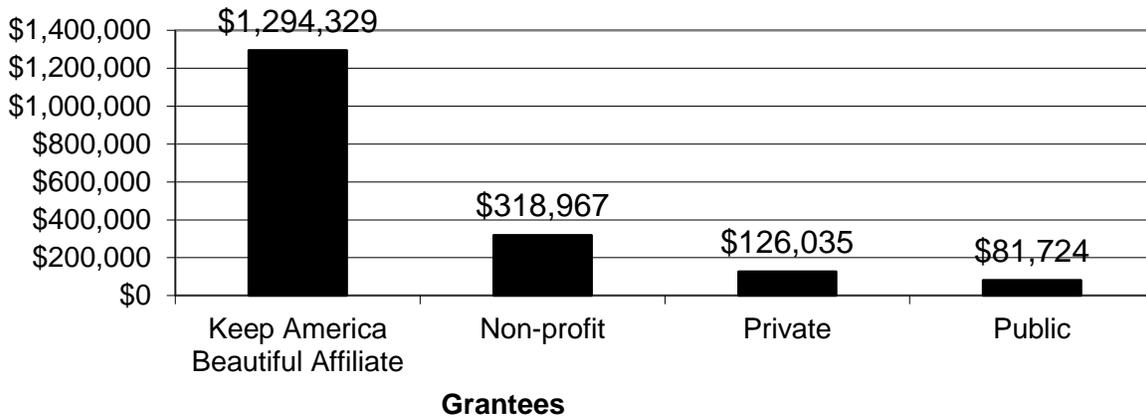
- Food for human consumption, beverages, soft drinks, carbonated water, liquor, wine, beer and other malt beverages, unless sold by retailers solely for consumption indoors on the retailer's premises;
- Food for pet consumption;
- Cigarettes and other tobacco products;
- Household paper and household paper products;
- Cleaning agents; and
- Kitchen supplies.

Fund Summary Litter Reduction and Recycling Fund July 1, 2015 - June 30, 2016

Fund Balance June 30, 2015	\$1,532,147
Revenues:	
Litter Taxes Collected	\$2,071,754
Interest, Grant Returns	\$64,718
Net Collections for Year	\$2,136,472
Expenditures:	
NDEQ Administration	\$320,040
Grant Funds Expended	\$1,635,601
Total Expenditures FY 2016	\$1,955,641
Fund Balance June 30, 2016	\$1,712,978

In FY2016 \$1,821,055 was awarded from the Litter Reduction and Recycling Grant Program. Grant funding is awarded to several types of programs, including non-profit groups, public and private entities, and over 20 Keep America Beautiful affiliates. Many of these programs utilize the Litter Reduction and Recycling Grant Program funds to leverage additional dollars for a comprehensive, statewide approach to litter reduction and recycling. Below is a chart reflecting FY2016 grantees.

FY 2016 Litter Reduction and Recycling Fund Grantees



FY 2016 Grant Allocations - Litter Reduction and Recycling Fund

In FY2016, NDEQ gave 54 Litter Reduction and Recycling Grant Program awards to organizations in Nebraska. The breakdown is as follows:

FY 2016 (July 1, 2015 – June 30, 2016)

Public Education	(45%)	18 grants	\$ 819,597
Cleanup	(6%)	12 grants	\$ 108,483
Recycling	(49%)	24 grants	\$ 892,975
Totals	100%	54 grants	\$ 1,821,055

Public Education

In FY2016, 18 grants totaling \$819,597 were awarded under the category of Public Education. The Public Education programs educate citizens in the areas of litter reduction, cleanup and recycling through a variety of individual and community activities. The citizens of Nebraska are cultivating a greater awareness of their impact on the environment through their purchasing and disposal actions. The educational programs are an excellent means of providing information on proper waste disposal, recycling and available products that contain recycled material. Priority is given to programs that promote markets for recycled materials or purchasing products made from recycled materials. The following list indicates the locations that received funds.

FY 2016 Public Education Grant Awards

Total Awarded - \$819,597 18 total grants
 2 regional grant awards 1 statewide grant award

Cities

Alliance	Lincoln (2)
Beatrice	Louisville – Keep Cass County Beautiful
Chadron	Norfolk
Columbus	Ogallala
Fremont	Omaha
Grand Island	Schuyler
Kimball	Scottsbluff/Gering
Burwell (Regional)	Plainview (Regional)
Product Stewardship Institute (Statewide)	

Regional grants:

Burwell Keep Loup Basin Beautiful / Loup Basin RC&D, (13 County area: Blaine, Loup, Garfield, Wheeler, Custer, Valley, Greeley, Sherman and Howard. Since 2013, added Holt, Rock, Boyd and Cherry counties.)

Plainview Keep Northeast NE Beautiful (9 County area:, Knox, Antelope, Pierce, Cedar, Dixon, Wayne, Dakota, Cuming, Thurston)

Statewide grant:

Product Stewardship Institute

Cleanup

In FY2016, 12 grants totaling \$108,483 were awarded under the category of Cleanup. The cleanup programs utilize Nebraska residents of all ages to pick up litter and debris along Nebraska's highways, waterways, recreation lands, urban areas and other public-use areas within the state. Not only are the public areas improved through the removal of litter and debris, but also much of the material collected during the cleanups is recycled. The recycling proceeds are often utilized to benefit the respective programs. The following list indicates the locations that received funds.

FY 2016 Cleanup Grant Awards

Total Awarded - \$108,483 12 total grants

Cities

Beatrice	North Platte
Burwell (Regional)	Ogallala – Keep Keith County Beautiful
Chadron	Omaha
Grand Island	Scottsbluff/Gering
Lincoln	South Sioux City
Louisville – Keep Cass County Beautiful	Steinauer Community Club

Regional grant:

Burwell Keep Loup Basin Beautiful / Loup Basin RC&D, (13 County area: Blaine, Loup, Garfield, Wheeler, Custer, Valley, Greeley, Sherman and Howard. Since 2013, added Holt, Rock, Boyd and Cherry counties.)

Recycling

In FY2016, 23 grants totaling \$892,675 were awarded under the category of Recycling. The recycling programs provide an alternative to the disposal of solid waste in Nebraska’s landfills. The programs recycle more than just aluminum, paper, glass and plastic. Materials such as electronic computer components, paint, aerosol cans, fertilizer, pesticides and household hazardous waste are collected and either reprocessed to be used again or are disposed of in an environmentally friendly manner. Recycling conserves our natural resources, landfill space and energy. Jobs are created and revenue is generated through the opportunities that recycling provides. Recycling efforts that promote the purchase of recycled content products continue to receive priority for funding. This support helps to “close the loop” and enhance the recycling efforts in Nebraska. The following list indicates the locations that received funds.

FY 2016 Recycling Grant Awards

Total Awarded - \$892,975 24 total grants
 2 regional grant awards 3 statewide grant awards

Cities

Alliance	La Vista	Village of Roca
Chadron	Lexington	Schuyler
Firth	Lincoln (3) (2 Statewide)	Scottsbluff/Gering
Grand Island (Statewide)	North Platte (3)	Sidney
Imperial	Ogallala (3)	Tekamah (Regional)
Kimball	Omaha	York (Regional)

Regional grants:

Tekamah Papio-Missouri NRD
 York 4 Corners Health Department

Statewide grants:

Lincoln Nebraska Farmers Union
 Lincoln WasteCap NE
 Grand Island Nebraska State Fair

Illegal Dumpsite Cleanup Program

The Illegal Dumpsite Cleanup Program, established in 1997, is a cleanup program that provides funding assistance to political subdivisions for the cleanup of solid waste disposed of along public roadways or ditches. Through this program, items such as household waste, white goods, construction and demolition waste and furniture are removed from the illegal site and disposed in a permitted facility or recycled.

One large site that was cleaned up was discovered near Franklin. It originally was the dumpsite for the Franklin area before 1992 legislation prohibited these small town dumps. Previously, towns with less than 5,000 people were allowed to have unregulated dumps. The Integrated Solid Waste Management Act eliminated these small town dumps, and solid waste now must go to permitted Subtitle D permitted landfills. This site built up over the years, and by the time NDEQ staff came across it in 2015, 771 tons of waste had piled up in the ravine. With the oversight of NDEQ staff and a coordinated effort with Franklin County and the private property owner, an agreement was reached, and a contractor was hired to clean up the site. The total request for reimbursement through the Illegal Dumpsite Cleanup Fund was \$108,000.00, and the work was completed within a two-week timeframe in June 2016. In addition to removing and properly disposing of the waste at the site, Franklin County put up fencing, built berms and posted signage to prevent future dumping at the location.

Funding for this program is limited to five percent of the total revenue from the disposal fee collected from landfills in the preceding fiscal year. NDEQ encourages municipalities, counties and other political subdivisions to submit applications for the reimbursement of cleanup efforts. In FY2016, the program provided 26 grants, totaling \$162,535.82 to 6 recipients. In FY2016, funds were provided to:

City of Lincoln	City of Omaha	Seward County
Lincoln/Lancaster County	Washington County	Franklin County

Landfill Disposal Fee Rebate Program

The Landfill Disposal Fee Rebate Program was created as an incentive to political subdivisions to support and encourage the purchasing of products, materials, or supplies that are manufactured or produced from recycled material. Funding for the program is from the Waste Reduction and Recycling Incentive Fund.

Under the program, which was created in 1994, any municipality or county may apply for a rebate if they have a written purchasing policy requiring a preference for purchasing products, materials or supplies that are manufactured or produced from recycled material. If the policy is approved by NDEQ, the applicant may receive a 10-cent rebate from the \$1.25 per ton disposal fee. Rebates are provided no more than quarterly and no less than annually.

In FY2016, the program provided \$94,409 to five counties and six cities participating in the program. In FY2014, NDEQ offered to provide letters and forms to the participants through email instead of the postal service. Eight of the eleven participants chose this option furthering our waste reduction efforts and increasing efficiency.

Buffalo County	\$ 5,551	Butler County	\$ 648	City of David City	\$ 216
City of North Platte	\$ 3,807	City of Lincoln	\$33,588	Saline County	\$ 2,101
City of Omaha	\$45,604	South Sioux City	\$ 571	Jefferson County	\$ 959
Seward County	\$ 1,252	City of Grant	\$ 112		

CHAPTER 6:

Water Division

The goal of the Water Division is to protect the surface and groundwater resources in Nebraska. This chapter describes the programs administered by the Water Division, including: petroleum remediation programs, agriculture programs, surface water and groundwater monitoring and assessment programs, water quality planning, wastewater permitting and certification programs, and financial assistance programs.



Nebraska's municipalities and industries that discharge wastewater need to obtain permits through NDEQ. More information about NDEQ's wastewater programs can be found on page 74.

In 2016, NDEQ underwent some restructuring. Previously, all the water programs were in the Water Quality Division, which was twice the size as both Air and Land Divisions. To facilitate better management, there are now two divisions for water programs, making all four divisions approximately the same size. The Water Permits Division has livestock, chemigation, secondary containment of ag chemicals, the State Revolving Fund loan programs, and all the NPDES and wastewater (including septic tanks) programs. The Water Quality Division has the petroleum remediation, underground injection control, groundwater and surface water monitoring, wellhead and source water protection, fish kill response, surface water quality standards and assessment, 401 certification, water quality data management, and the nonpoint source programs.

Petroleum Remediation Program

Activities regarding the Petroleum Remediation Program involve two interrelated areas:

1. Overseeing the **investigation and cleanup** of petroleum contamination resulting from leaking above-ground and underground storage tanks (and other sources such as pipeline leaks and transportation spills); and
2. Administering a **financial assistance program** for persons responsible for investigation and cleanup costs due to petroleum releases from tanks.

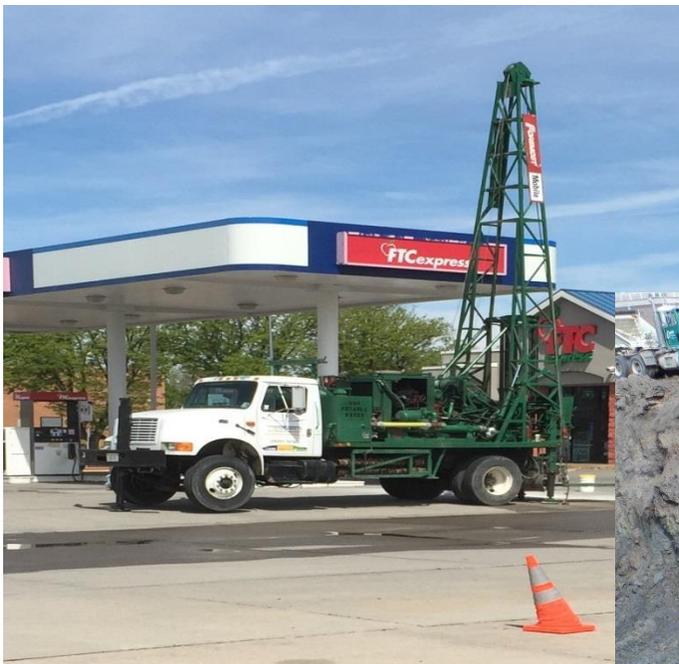
Investigation and Cleanup

The first step in the Petroleum Remediation Program is the review of tank removal assessment reports or other documentation to determine whether contamination exists. After some initial indication that there may be petroleum contamination at a site, NDEQ decides whether more investigation and cleanup are required. NDEQ also determines whether parties who caused the contamination are available and financially capable of assuming responsibility. The Program

also receives reports of catastrophic tank failures, contaminated drinking water wells, vapors in structures and utilities, and other serious situations that may require emergency actions.

In the event these reports indicate a threat to health, safety, or the environment, NDEQ requires a detailed study of the affected groundwater and soil to discover the severity of the contamination, direction of groundwater flow, and potential water supplies or other points of exposure that may be impacted. Program staff review these reports to determine if cleanup requirements are needed and issue a public notice of their decision. Staff review remedial actions throughout the project and determine when sufficient cleanup has been accomplished.

The program has incorporated risk-based corrective action (RBCA) procedures into regulations and accompanying guidance. The RBCA process allows evaluation of all petroleum release sites based on the risk they pose to human health and the environment. Those that pose no significant risk are closed; those that pose significant risk are prioritized for further work. Since 1999, the program has been initiating many new investigations to collect information needed for Tier 1, the first step in the RBCA process. The plan is to continue investigating additional sites until eventually the information necessary for a RBCA Tier 1 evaluation has been collected at all sites. Sites that fail Tier 1 are activated for Tier 2, which is a more detailed investigation and the next step in the RBCA process. If sites fail Tier 2, they are normally scheduled for cleanup.



*Pictured at left is an auger drill rig installing a monitor well during a Tier 1 site assessment.
Below, right: Excavation of diesel fuel-contaminated soil (gray-green) and removal of free product (liquid) as part of a major redevelopment project.
Below, left: A typical equipment trailer used to remove gasoline vapors from the subsurface soil and remediate ground water contamination.*



Financial Assistance – Petroleum Release Remedial Action Reimbursement Fund

When contamination has been found at a site, and the NDEQ has determined that more investigation and/or cleanup are required, NDEQ will also determine the “responsible person.” This term refers primarily to those who owned or operated the tank when the leak occurred. Those who are determined to be a responsible person may be eligible for reimbursement through the Petroleum Release Remedial Action Reimbursement Fund.

The Fund was created by the Legislature in order to help tank owners pay for the costs associated with assessing and cleaning up any petroleum releases from tanks as well as meet financial responsibility requirements established by federal law for underground storage tanks. Costs for both underground and above-ground tank releases are eligible for reimbursement. The program’s activities in this area include receiving and processing applications for reimbursement from the fund and subsequently issuing reimbursements for eligible costs. To assist applicants, the program developed guidelines entitled "Reasonable Rates Schedule and Reimbursement Guidance Manual."

“Orphan” Sites

In situations involving "orphan" sites (sites where the responsible person that caused the contamination either cannot be identified or located or does not have the resources to pay for their share of cleanup costs), investigation and remediation costs are paid with federal and/or state funds. In FY2016, 81 orphan sites were activated for investigation and/or cleanup using State contractors. As of September 19, 2016, there were 394 orphan sites yet to be investigated.

Pay for Performance

Some orphan sites are selected by the state to be cleaned up through a different process known as “Pay for Performance.” Under the Pay for Performance program, pre-qualified contractors are invited to submit bids to clean up specific petroleum-contaminated sites. NDEQ has signed 36 Pay for Performance contracts since the program’s inception. Of these projects, 12 have been successfully completed, 20 were terminated prior to completion, and 4 are still in the cleanup phase. This program saves the state time and money by using this procedure to clean these sites up.

Equipment Reuse

As sites are undergoing cleanup, NDEQ pays for the purchase of remediation equipment. When sites are cleaned up and closed, NDEQ seeks to reuse that equipment at other sites. Since June 2005, NDEQ has reused hundreds of pieces of equipment, thus greatly reducing the need to buy new equipment. This reuse program has saved Nebraska taxpayers over \$4.3 million in new equipment costs and allowed that money to be used for cleanup of additional sites.

Program Statistics

From June 1999, through September 28, 2016, 2,958 Tier 1 site investigations have been initiated. Of the 2,605 Tier 1 field investigations completed, 1,586 (61%) were closed, and 1,019 (39%) were determined to need a more detailed Tier 2 investigation. Since April 2002, 935 Tier 2 investigations have been completed; 632 (68%) of these sites have been closed. Of all the sites that have completed a Tier 1 or Tier 2 investigation, approximately 346 (13%) have reported finding the contaminant methyl tert-butyl ether (MTBE) in groundwater.

Revenue going into the cleanup fund in FY16 was about \$11.8 million. As of June 30, 2016, over \$208 million has been disbursed since the program began. During FY16, NDEQ reimbursed about \$4.7 million to responsible persons (or their designees) for work done at 232 different sites.

The 40 sites listed below are all currently active sites that have received a total reimbursement of more than \$600,000 each. Once the statutory limit is reached, the responsibility of funding the remainder of cleanup necessary reverts to the responsible person. Some closed sites also reached the statutory limit but are not shown.

Responsible Person	City	Reimbursed amount as of June 30, 2016	Has Statutory Limit Been Reached?*
Ag Valley Coop	Bartley	\$975,000.00	yes
Burlington Northern & SFR	Alliance	\$975,000.00	yes
Burlington Northern & SFR	Mc Cook	\$975,000.00	yes
Konecky Oil	Mead	\$975,000.00	yes
Elkhorn Valley Coop	Snyder	\$974,752.76	yes
Burlington Northern & SFR	Lincoln	\$974,300.47	yes
Conoco Phillips	Sidney	\$973,919.00	yes
Burlington Northern & SFR	Alliance	\$973,682.45	yes
Burlington Northern & SFR	Alliance	\$973,302.50	yes
Burlington Northern & SFR	Alliance	\$972,578.98	yes
Unocal Corporation	Ogallala	\$959,107.07	yes
Magers Service	North Platte	\$947,669.57	no
Flying J Inc.	Gretna	\$934,446.51	no
Wortman Motor Co.	Doniphan	\$909,702.20	no
Coastal Refining & Market	Chester	\$866,922.51	no
Roesener Oil Co.	Cook	\$856,667.83	no
Neitzel Oil Co.	Springfield	\$851,686.82	no
City of Lincoln	Lincoln	\$848,622.40	no
IBP ATV (At the Verticals)	Dakota City	\$848,409.73	no
Leigh Oil Co.	Leigh	\$822,421.55	no
Sandhill Oil	Theftord	\$810,989.34	no
Foote Oil Company	Hastings	\$805,480.70	no
Indianola Oil Company	Indianola	\$785,430.04	no
Former Milder Oil	Omaha	\$761,089.21	no
Ag Valley Coop	Curtis	\$760,949.30	no
Lexington Coop Oil	Eddyville	\$732,783.85	no
Sinclair Oil Corp.	Grand Island	\$710,609.04	no
Behrends Service	Diller	\$674,287.40	no
Burr Coop	Burr	\$665,431.09	no
Burlington Northern & SFR	Columbus	\$662,844.39	no
UPRR	North Platte	\$656,390.76	no
Farmers Union Coop	Dannebrog	\$650,151.67	no
Kaneb Pipeline Company	Geneva	\$649,198.61	no
Elk Oil Co.	Elk Creek	\$638,249.85	no
Farmers Union Coop Co.	Platte Center	\$635,581.05	no
Ehlers Truck Plaza	Superior	\$623,812.60	no
Wauneta-Palisade Pub Sch	Wauneta	\$621,632.45	no
Havertys Farm & City	Nebraska City	\$616,007.51	no
Crystal Oil Co.	South Sioux City	\$608,818.50	no
Former Farmers Coop	Cedar Bluffs	\$607,091.97	no

* Those with a yes indicate that the statutory limit was reached prior to June 30, 2016. The total reimbursed amount may have been reduced due to noncompliance.

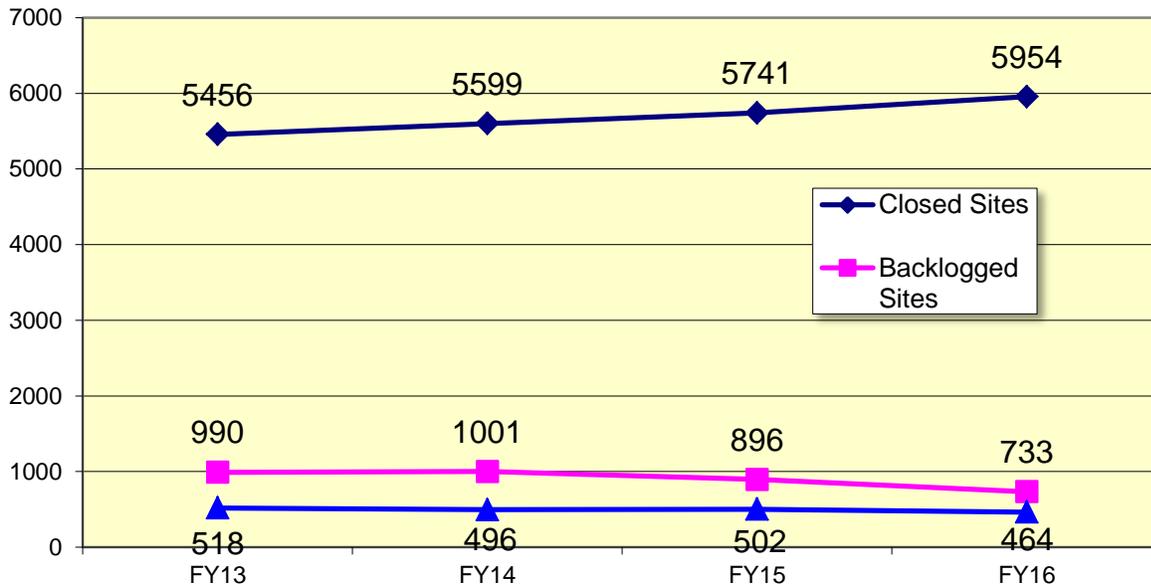
Responsible persons are able to perform voluntary remedial action prior to NDEQ's approval of their plans and still be eligible for reimbursement consideration in the future. This allows sites to

move forward on their own initiative. To date, 228 suspended or backlogged leaking underground storage tank sites have been closed based on voluntary submittals.

The following is a chart of end-of-year totals for the past four years relating to Petroleum Remediation sites in Nebraska. The chart provides information relating to:

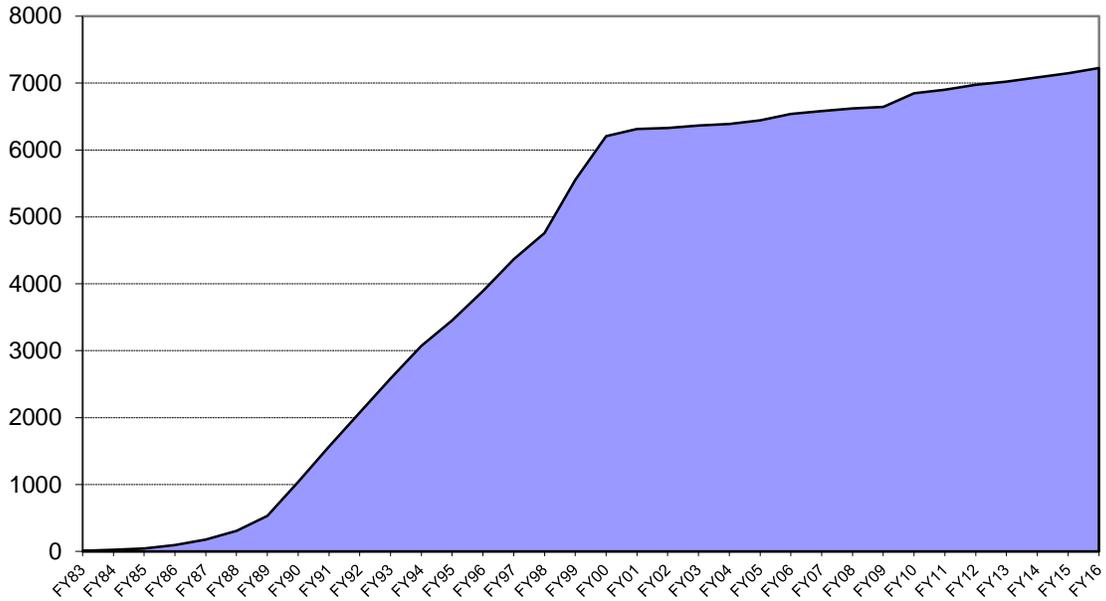
- **Closed Sites:** Sites that have been closed either because they have been cleaned up or it has been determined that no cleanup is necessary.
- **Backlogged Sites:** Sites identified as potentially needing cleanup, but are on a waiting list for further investigation.
- **Active Sites:** Sites that are currently being actively investigated or remediated.

**Petroleum Remediation Trends:
End-of-Year Totals, FY13-FY16**

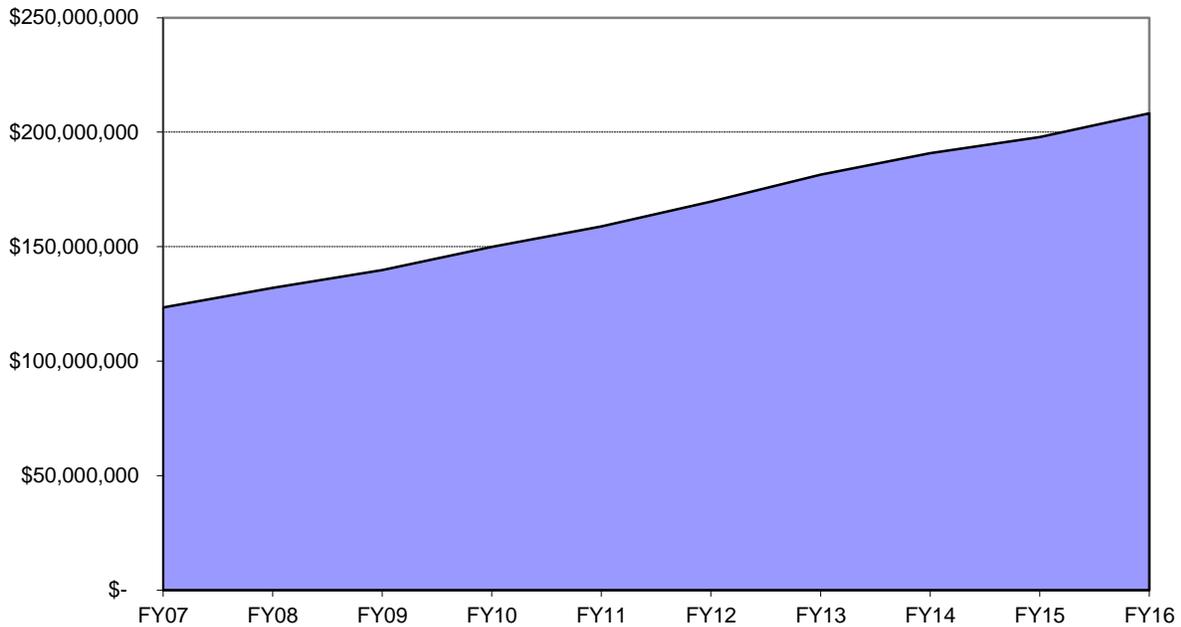


The chart below shows the cumulative number of sites that have had releases identified. The second chart shows the cumulative amount that the program has spent on investigation and cleanup in the past several years.

**Cumulative Number of LUST Releases
(Through FY16)**



**Cumulative Title 200 Disbursements
(last 10 years through FY16)**



Agriculture Section

The Agriculture Section programs consist of the Livestock Waste Control Program, the Chemigation Program, and the Agricultural Chemical Containment Program.

LIVESTOCK WASTE CONTROL PROGRAM

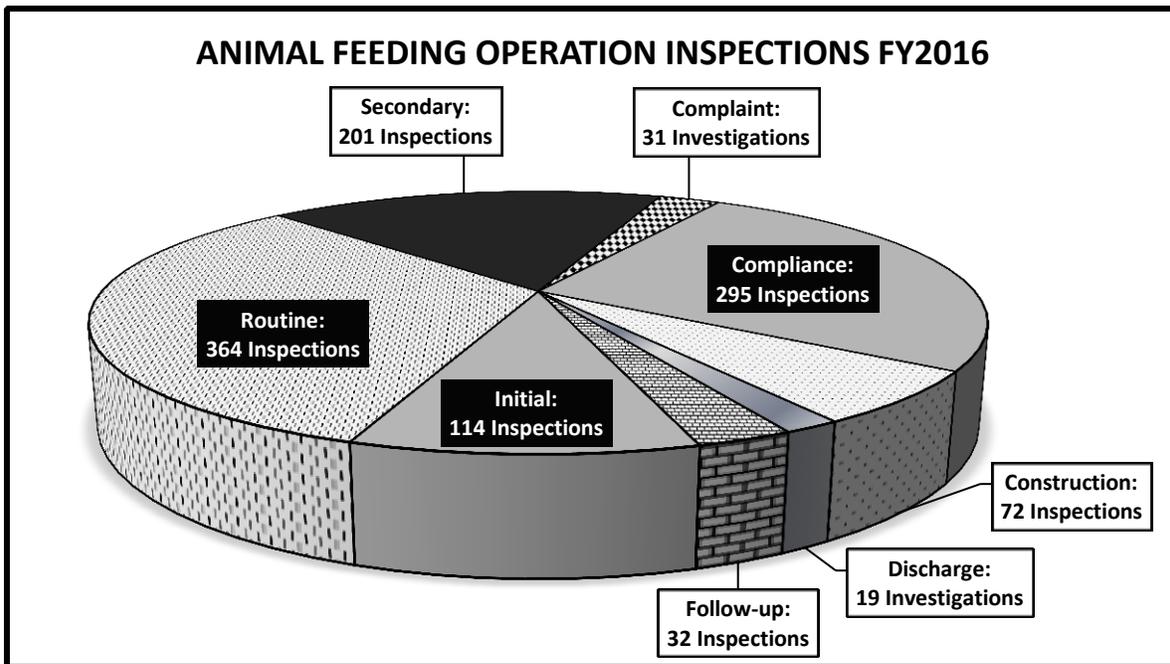
Overview

The Livestock Waste Control Program (LWC) is charged with the overall responsibility to protect Nebraska’s surface water and groundwater from discharge of livestock waste from any of the thousands of Animal Feeding Operations (AFOs) in Nebraska.

To accomplish this responsibility, the program administers *Title 130 - Livestock Waste Control Regulations*. The LWC program primarily focuses on the 733 active large Concentrated Animal Feeding Operations (CAFOs) required to have permits, but also works with approximately 2,000 Medium AFOs. The LWC Program uses inspections, permitting, and periodic monitoring to fulfill this responsibility. The permitting includes administering the National Pollutant Discharge Elimination System (NPDES) program for CAFOs.

Amendments to Title 130 became effective October 4, 2011 to reflect changes in the U.S. Environmental Protection Agency (EPA) CAFO Rule for NPDES permitting, which primarily involved who needs to apply for NPDES permit coverage. The changes were necessary to ensure the Department would continue to administer the NPDES permit program for EPA. As a result, only CAFOs that discharge are required to apply for NPDES permit coverage.

Inspections



The LWC Program staff conducted a total of 1,128 livestock waste control inspections and investigations in FY2016 (including complaint and discharge investigations). The chart above illustrates the breakdown by type of inspection or investigation. A concerted effort was made

during the fiscal year to revisit many medium sized operations to ensure that they were in compliance with Title 130 and the EPA CAFO Rule.

A short description of each type of inspection and investigation follows:

Initial Inspection. Before constructing a new operation or expanding an existing operation, all medium and large AFOs – whether or not the operation currently is permitted -- must request an initial inspection by LWC Program staff. The reason for this inspection is to determine if livestock waste control facilities (LWCF) must be constructed, expanded, or modified to prevent a discharge and to properly manage the livestock waste generated by the operation.

Post Construction Inspection. Upon completion of any required construction of a LWCF, program staff conduct a post-construction inspection to verify the waste control facility was constructed as approved by the Department.

Routine Inspections. Once a CAFO or an AFO has received a permit, and the Department has approved operation of the LWCF, program staff will conduct periodic, routine inspections to monitor operation of the livestock waste control facilities, management of the operation's livestock waste, and the records these CAFOs and AFOs are required to maintain. Routine inspections are regularly scheduled inspections of an AFO, involving a detailed, extensive inspection of the LWCF, recordkeeping, and waste management at the operation.

Follow-up Inspections. These are conducted in response to some specific activity, situation, or request by the operation. Follow-up inspections could be prompted by an operation's request for a "second opinion" on a requirement; or to monitor the AFO's progress on completing a construction or repair project; or to follow up after a complaint inspection or enforcement action, for example.

Compliance Status Inspections. Generally conducted to verify the AFO's operating status or level of compliance with a specific requirement; these inspections are usually less urgent, non-emergency situations.

Discharge Investigations. Discharge investigations are conducted when discharges of livestock waste from livestock waste control facilities are reported. Sometimes these discharges are not recorded as complaints because the AFO does self-reporting, as required by the regulations.

Complaint Investigations. When a complaint is received, LWC Program staff will investigate the complaint and may conduct an on-site complaint investigation.

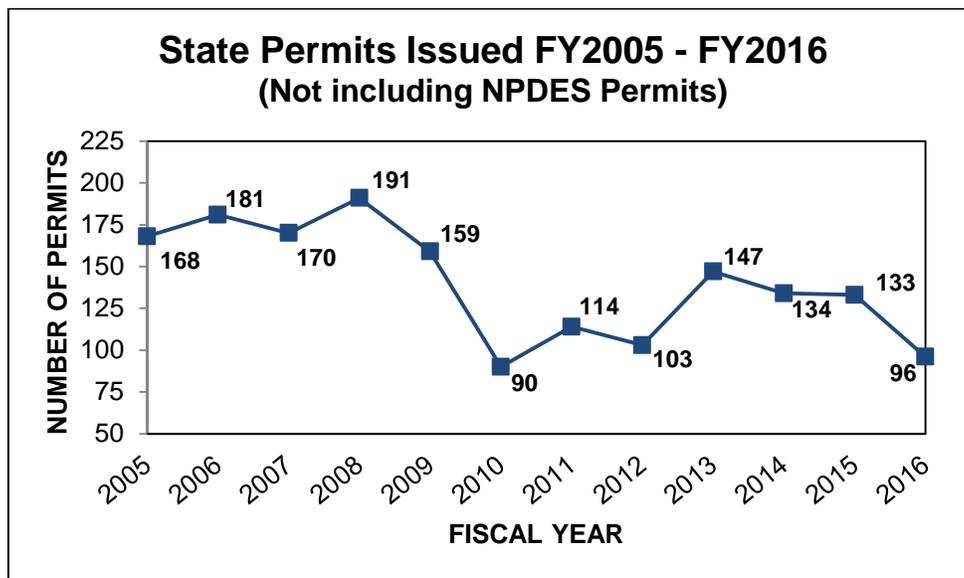
Secondary Inspections. Secondary Inspections are primarily conducted for training purposes and to assist the primary inspector in evaluating unusual or atypical AFOs.

State Permitting

After conducting an initial inspection, the Department may require the AFO to submit an application for a Construction and Operating Permit – the state permitting process for livestock waste control facilities – prior to construction of livestock waste control facilities.

The Department received a total of 102 permit applications and issued 96 permits during FY2016, as shown in the table to the right. The totals do not include applications received or permits issued for any NPDES permits. The chart below shows the total number of state permits issued annually for livestock waste control facilities since FY2005. The Department updated some existing Construction Permits, Construction Approvals and Operating Permits to Construction and Operating Permits if the AFOs updated their nutrient management plans (NMP) to current Title 130 standards. The NMP updates were mainly in conjunction with NPDES Permit renewals or transferred permits.

Construction and Operating Permits – FY2016		
Type of Application or Permit	Applications Received	Permits Issued
New permits	43	38
Modified permits	46	48
Transfer permits	13	10
TOTAL	102	96



Once a permitted AFO has completed its construction project, the Department conducts a post-construction inspection. If the post-construction inspection shows the construction was completed as approved, the Department notifies the AFO that operation of the new livestock waste control facility is approved. In FY2016, the Department gave approval to 80 AFOs for operation of their new or expanded LWC facilities.

National Pollutant Discharge Elimination System (NPDES) Permit

The LWC Program also oversees the NPDES permitting process for livestock, issuing coverage under individual NPDES permits to CAFOs, as well as coverage under a NPDES General Permit for Concentrated Animal Feeding Operations Confining Cattle. Both permits expire every five years, and permittees are required to submit a reissuance application to continue NPDES permit coverage.

The table below summarizes the number of NPDES applications received and permits issued for livestock waste control facilities in FY2016.

NPDES PERMITS – FY2016		
Type of NPDES Application/Permit	Applications Received	Permits Issued
GENERAL PERMIT FOR CAFOs CONFINING CATTLE		
New Coverage	13	6
Modified or Transferred	12	21
Reissued	92	98
SUBTOTAL GENERAL PERMIT:	117	125
INDIVIDUAL PERMITS		
New Coverage	2	2
Modified or Transferred	2	2
Reissued	3	2
SUBTOTAL INDIVIDUAL PERMIT:	7	6
NPDES TOTALS:	124	131

Fees

The annual fee is assessed on all permitted Large CAFOs and all CAFOs covered under an NPDES permit. The fee is determined based upon the number of head of livestock for which the operation has a permit. The fees provide 20% of the Department's costs to administer the livestock waste control program, as required by statute. The Department received \$248,868 in annual permit fees from 725 permitted large AFOs. In addition, the Department received \$33,500 in initial inspection fees (101 inspections), \$38,600 in permit application fees (142 applications), and \$12,950 in late payment fees (eight operations), for a total of \$333,918 in fees.

General information about the Livestock Waste Control Program, including applications, fact sheets, forms, guidance documents, copies of the NPDES General Permit and the four general permits, Title 130 regulations, and public notices of permit issuance or denial, can all be found on the Department's website at: <http://deq.ne.gov>.

CHEMIGATION PROGRAM

The Chemigation program, which functions in cooperation with Nebraska's 23 Natural Resources Districts (NRDs), works to ensure that users of irrigation systems applying fertilizers and pesticides do not contaminate the sources of irrigation water. These regulations are contained in *Title 195 – Chemigation Regulations*.

The NRDs inspect irrigation systems and issue site permits for specific safety equipment that is required to be installed on systems that chemigate. Chemigation permits for chemigation sites are issued annually, and are reported to the Department on a calendar year basis. Since permitting began in 1987, the total number of annual permits issued has followed an upward trend with NRDs issuing 29,457 chemigation permits in 2015, a two percent increase over 2014 permits issued.

A chemigation applicator initially must be certified by the Department, and re-certified every four years. To receive certification, an applicator must complete training and testing, which is provided under contract with the University of Nebraska Cooperative Extension. Applicator certifications also are reported on a calendar-year basis.

In SFY16, 1,233 applicators have been trained, tested and certified, bringing the current number of certified chemigation applicators to 5,426 applicators. Information about chemigation applicator training dates and certified applicators is available after January 1 of each year on the Department's web site, <http://deq.ne.gov>.

On February 14, 2014, the Governor approved Legislative Bill 272 (2014), and on March 18, 2015, the Governor approved Legislative Bill 207 (2015). Both of these legislative bills changed provisions related to the Nebraska Chemigation Act. Specifically, LB 272 requires that the Natural Resources Districts establish permit fees in the amount to pay the reasonable costs of administering the permit program. LB 207 (2015) proposed a more general reference to natural resources district penalty authority consistent. Title 195 -- Chemigation Regulations was amended to become consistent with the amended Nebraska Chemigation Act. The new regulations became effective September 16, 2015.

AGRICULTURAL CHEMICAL CONTAINMENT PROGRAM

The Agricultural Chemical Containment program regulates the construction and use of commercial and private facilities for the storage, loading, and rinsing activities of bulk liquid fertilizers and bulk liquid and dry pesticides. These regulations are contained in *Title 198 - Rules and Regulations Pertaining to Agricultural Chemical Containment*.

The regulations administered by this program provide specific requirements for design by a Nebraska Registered Professional Engineer, construction materials, containment capacities and maintenance. Although no permit or registration is required, the operation must have a construction plan for the facility and a management program.

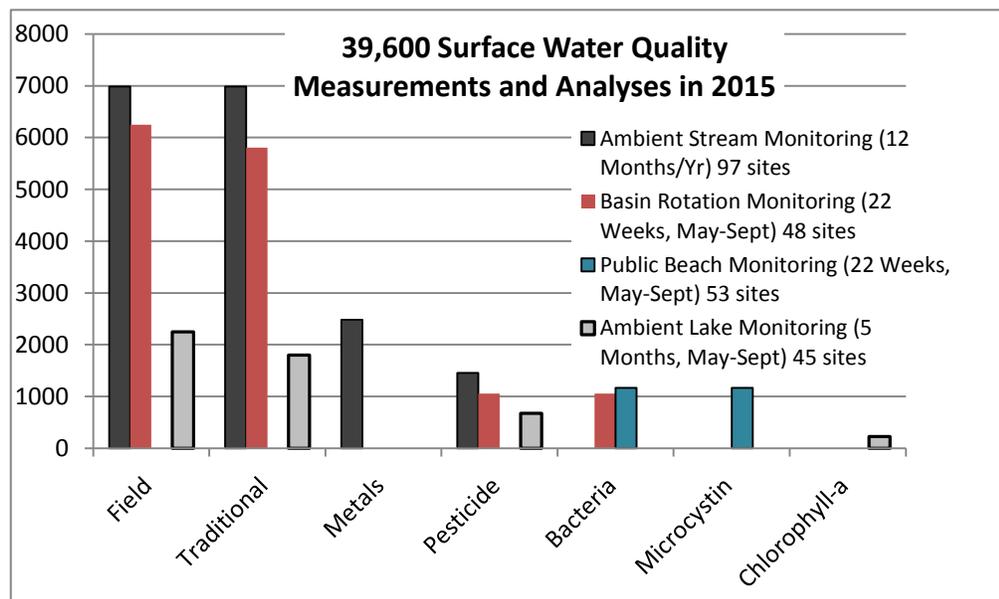
The Department and the Nebraska Department of Agriculture have a cooperative agreement that outlines the procedure for coordinating inspection activities between the two agencies. The agreement enhances the communication between the agencies and provides specific protocols to be followed when investigating Agricultural Chemical Containment complaints. In FY2016, Agriculture Section staff conducted a total of 13 complaint investigations of suspected releases related to agricultural chemical containment systems.

Water Quality Monitoring and Assessment Programs

Surface Water Assessment Programs

Staff working with the Surface Water Monitoring and Assessment programs collect physical, chemical and biological water quality samples from streams and lakes, implement surface water improvement projects and prepare surface water quality reports. Some monitoring programs collect stream and lake samples throughout the state; however, most monitoring is focused in one to three major river basins each year in conjunction with a rotating basin monitoring strategy. Monitoring data are used to document existing water quality conditions, assess the support of beneficial uses (such as aquatic life, recreation, and public drinking water supply) and prioritize water quality problems. Current monitoring partners include the Natural Resources Districts (NRDs), Nebraska Public Power District (NPPD), U.S. Army Corps of Engineers (USACE), Nebraska Game and Parks Commission (NGPC), University of Nebraska-Lincoln (UNL), Central District Health Department (CDHD), and United States Geological Survey (USGS).

Each year, surface water samples are collected at hundreds of locations across the state resulting in nearly 40,000 individual field measurements and laboratory analyses. The graph below shows the number of field measurements made and laboratory analyses performed in 2015 (2016 monitoring was finishing as this report was being prepared).



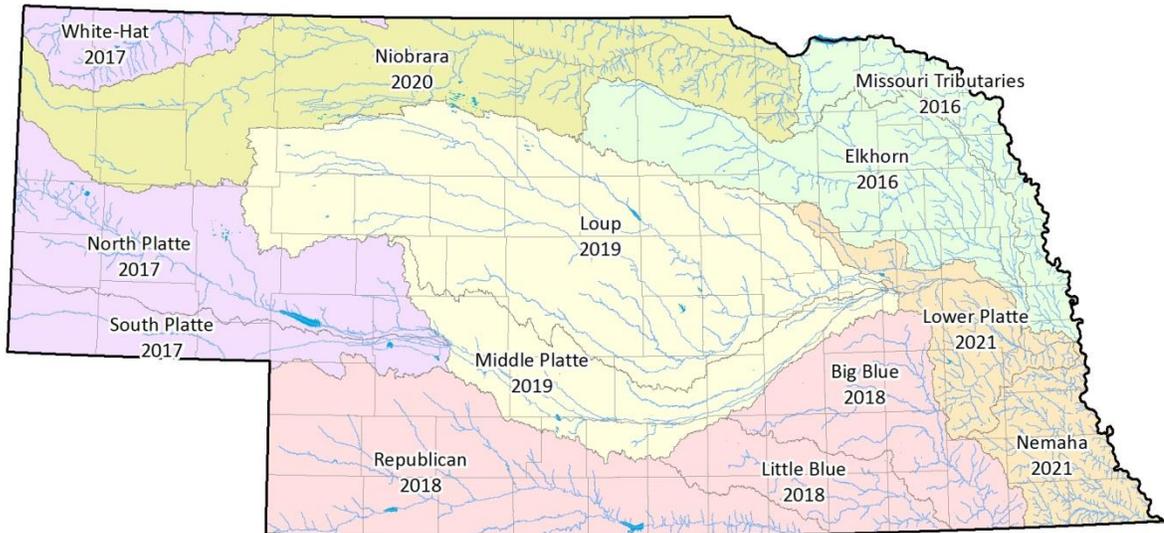
Brief descriptions of the basin monitoring strategy, as well as other water quality monitoring programs are provided below. Additionally, a more detailed overview of the programs are provided in the Department’s annual publication Water Quality Monitoring Report:

<http://deq.ne.gov/publica.nsf/Pages/WAT233>

Basin Rotation Monitoring Program — The Basin Rotation Monitoring Program (BRMP) targets one to three river basins each year for intensive monitoring. Targeting resources in this manner improves NDEQ's ability to identify and remediate water quality problems and allows resources to be focused where they can produce the greatest environmental results. During a six-year cycle, all 13 major river basins in the state are intensively monitored (see map below for details).

In 2016, a total of 43 stream sites in the Elkhorn and Missouri Tributaries basins were sampled weekly from May through September. A total of 946 stream samples were analyzed for the 15 parameters collected for this program.

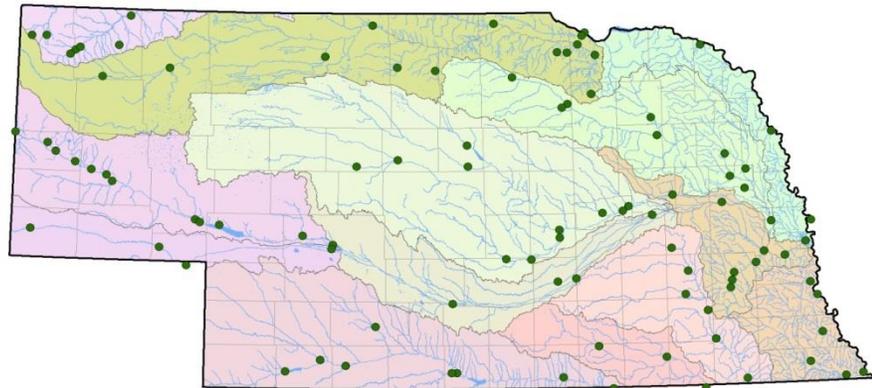
Six-year basin rotation monitoring schedule



Ambient Stream Monitoring Program — The Ambient Stream Monitoring Program (ASMP) has a network of 100 fixed stations located on main stem and tributary streams across the state (see map below for locations).

The primary objectives are to provide information on the status and trends of water quality in streams within each of the state's 13 major river basins and link assessments of status and trends with natural and human factors that affect water quality. During 2016, approximately 1,200 water samples were analyzed for the 32 parameters collected for this program.

Locations of NDEQ Ambient Stream Monitoring Program sites



Public Beach Monitoring Program — Since 2004, NDEQ has conducted sample collection at public beaches statewide, for *E. coli* bacteria and the microcystin toxin. The microcystin toxin is hepatotoxin that can be produced by blue-green algae also known as a harmful algal bloom (HAB). The risks to humans come from external exposure (prolonged contact with skin) and from swallowing the water. Symptoms from external exposure are skin rashes, lesions and blisters. Symptoms from ingestion can include headaches, nausea, muscular pains, central abdominal pain,

diarrhea and vomiting. Severe cases could include seizures, liver failure and respiratory arrest. The severity of the illness is related to the amount of water ingested, and the concentrations of the toxins. Incidents in 2004 with dogs dying caused by drinking water from lakes that were undergoing a HAB led NDEQ to begin monitoring public waters for the presence and concentration of microcystin.



In 2016, monitoring occurred weekly at 53 beaches on 50 different lakes from May through September. Over 1,200 samples were assessed for each parameter. Our collection protocols allow for samples to be collected, analyzed and reported to the public weekly before the weekend when lakes typically experience the most usage. Results are posted to the NDEQ website by Thursday afternoon with press releases on affected lakes being sent to area newspapers Friday morning.

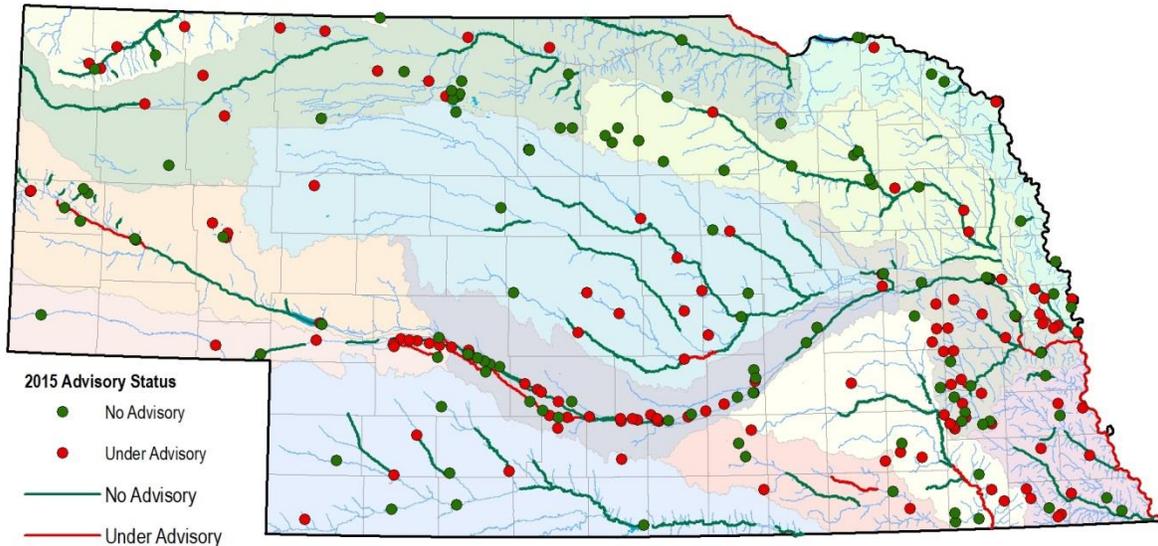
Levels of microcystin above 20 ppb result in public health alerts being issued and signs are then posted recommending full body contact activities in the water be avoided. In 2016, health alerts were issued on ten different lakes and the amount of time the lakes were on alert ranged from two to ten weeks. Results and health alerts are listed weekly during the recreational season on the NDEQ's web site <http://deq.ne.gov>.

Fish Tissue Monitoring Program — The NDEQ has been sampling and assessing toxins in fish tissue annually since 1978. In 2016, a total of 92 fish tissue samples were collected from 10 streams and 35 lakes within the Elkhorn and Missouri Tributaries River basins for analysis of pollutants. The University of Nebraska-Lincoln (UNL) School of Natural Resources Department assisted in collecting tissue samples from the Missouri River.

The report “Regional Ambient Fish Tissue Program – 2015 Data Assessment Report” and current list of advisory sites can be found at DEQ’s web site, <http://deq.ne.gov>. The report is located at Publications and Forms/Water Publications/Water Publications by Type/Reports. The direct URL is: <http://deq.ne.gov/Publications/Pages/WAT225>. A summary of fish advisory information is easily located at DEQ’s web site by entering “fish” in the Search NDEQ Web box located on the right side of the Home page. The direct URL is: <http://deq.ne.gov/NDEQProg.nsf/OnWeb/FCA>.

Currently, Nebraska has 142 state-issued advisories. The primary contaminants of concern in fish tissue in Nebraska and most other states are mercury and polychlorinated biphenyl compounds (PCBs). Fish Consumption Advisories are risk-based calculations centering on a 70 kilogram (~154 pound) person eating 8 ounces of fish caught in the specified locations per week. See maps below for current advisory locations.

Lake and Stream Fish Consumption Advisory Locations in Nebraska Through 2015



Stream Biological Monitoring Program — This program is used to assess the health of streams by evaluating the composition and numbers of resident aquatic macroinvertebrate and fish communities. The Department’s fish surveys have also provided information on changing abundances and ranges of fish in the state. During 2016, a total of 34 stream sites were sampled in the Elkhorn and Missouri Tributaries River basins.

Lake Monitoring Program — In 2016, 48 lakes and reservoirs were sampled monthly May through September for physical /chemical parameters by NDEQ and its lake monitoring partners which currently includes the USACE and Nemaha NRD. The Department monitors these resources to determine if water quality is suitable for fish and other aquatic organisms to survive and reproduce. Approximately 240 samples were collected at deep water locations and assessed for 15 parameters with additional profiles collected from mid-lake locations.

Fish Kill and Citizen Complaint Investigations — The Surface Water Unit (SWU) responds to reports of fish kills and other environmental concerns of citizens related to surface water. On-site investigations are conducted, as needed, to document existing water quality conditions, surface water quality standards violations and identify pollution sources and responsible parties. A total of 17 fish kills were reported between July 1, 2015 and June 30, 2016. Nine of the reported fish kills were attributed to low dissolved oxygen levels within the waterbody, whereas four were the result of disease, one was the result of low water levels compounded with high water temperatures, one was the result of livestock waste and two were the result of an undetermined pollutant.

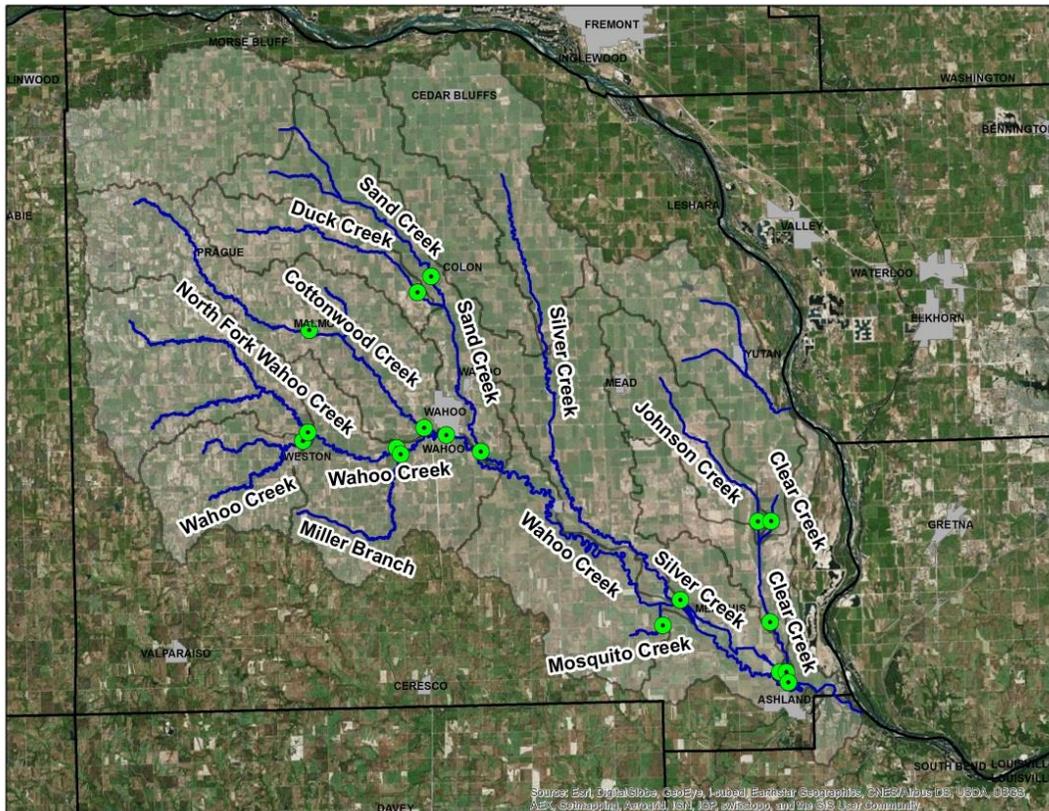
Between July 1, 2015 and June 30, 2016 the SWU received 50 notifications of complaints concerning surface water issues. While many of these cases were referred to other Department programs that more closely relate to the problem, sometimes the SWU assists by providing observations or samples to help document conditions.

Stream Nutrient Assessment Pilot Study – In 2015, the Department piloted a methodology to assess impacts from nutrients on the biology of streams based on the State of Ohio’s Stream Nutrient Assessment Protocol (SNAP). Rather than rely on nutrient values which can be transient and highly variable, SNAP integrates stream biology, dissolved oxygen variability, and chlorophyll a measurements to directly indicate whether nutrients may have adversely impacted the aquatic

life uses of a stream. The purpose of this pilot program is to see whether the methodology could be successfully implemented in Nebraska and whether meaningful data could result from the effort. Ten BRMP sites were chosen to collect metrics on fish, aquatic macroinvertebrates, 24 hour dissolved oxygen variation, habitat, benthic chlorophyll *a*, and algal composition in 2016. These data along with the weekly nutrient data collected throughout the summer months for the BRMP at these sites will be assessed and evaluated as this study moves forward.

Wahoo Creek Special Study – The Wahoo Creek Special Study (WCSS) was developed so that NDEQ can work towards the goal of assessing all stream segments within the Wahoo Creek watershed, while at the same time, providing information to better design, implement and evaluate sub-watershed projects to reduce pollutant loads and restore and protect the designated uses of stream segments in the watershed. In 2016, the WCSS encompassed the collection of weekly surface water samples from May 1- September 30 at 18 stream locations within the Wahoo Creek watershed. In addition, biological sampling (aquatic macroinvertebrates and fish) and habitat measurements were conducted at all 18 sites while periphyton and chlorophyll *a* samples were collected at nine of these sites. The UNL School of Natural Resources Department and the Lower Platte North NRD is assisting NDEQ with aspects of field data collection and bacteria analysis for this ongoing study.

WCSS sampling locations within the Wahoo Creek watershed



Integrated Report —States are required by the federal Clean Water Act to prepare a biennial water quality report called the Integrated Report. The Integrated Report provides a comprehensive summary of the status and trends of surface water quality in Nebraska and includes a list of impaired surface waters that do not support their assigned beneficial uses. The 2016 Water Quality Integrated Report, which was approved by the EPA in April 2016, is available on NDEQ's web site <http://deq.ne.gov>. The report's direct URL is: <http://deq.ne.gov/Publications/Pages/WAT234>

Nebraska Water Monitoring Programs Report — A report summarizing the monitoring programs performed by NDEQ called the “Nebraska Water Monitoring Programs Report” was prepared again in 2015. This report describes the numerous monitoring programs NDEQ is involved with, its partners, and several highlights of recent monitoring efforts. The 2015 Nebraska Water Monitoring Programs Report is available on the NDEQ's web site <http://deg.ne.gov>, by selecting Your Environment (Welcome to the NDEQ box located in the center of Home page)/Water Quality Monitoring Report. The direct URL is: <http://deg.ne.gov/publica.nsf/Pages/WAT233>

Groundwater Assessment Programs

Groundwater Quality Monitoring Report — Legislation passed in 2001 directed NDEQ to issue an annual report to the Legislature concerning the quality of the groundwater in Nebraska. The first of these reports was issued December 1, 2001. These reports summarize the water quality monitoring efforts of the Natural Resources Districts, NDEQ, and other state, local and federal agencies, and can be found on NDEQ's web site, <http://deg.ne.gov>. (Select Publications, then select Water Quality, then select 2015 Groundwater Quality Monitoring Report. Or, the Water Quality Division reports' index URL is: <http://deg.ne.gov/publica.nsf/pages/WAT222>.) Statistics and maps showing nitrate-nitrogen groundwater monitoring results as well as statistics for three of the 241 agricultural chemicals detected in the state are presented. The report uses data from the Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater, developed cooperatively by the Nebraska Department of Agriculture, University of Nebraska-Lincoln, and NDEQ using federal funding. These data are accessible to the public on the Nebraska Department of Natural Resources web site, <http://dnr.ne.gov>.

Hydrogeologic Studies and Reviews — The Groundwater Unit is responsible for hydrogeologic review of various NDEQ projects and programs to determine possible effects on groundwater quality and to recommend possible courses of action. Programs for which this review is performed include leaking underground storage tanks, surface spills, underground injection control, wastewater treatment facilities, septic systems, NPDES permits, livestock waste control facilities, the Natural Resources Districts' Groundwater Management Plans, and others.

In addition, the Groundwater Unit performs reviews and oversees remediation if a situation does not fall under another agency program and is of environmental significance. Unit personnel continue to take responsibility under Title 118 — Groundwater Quality Standards and Use Classification for many site investigations, and have sampled and supervised site cleanups.

Groundwater Management Areas — The Groundwater Management Area (GWMA) program focuses on assessing areas where groundwater problems from nonpoint source contaminants (such as agricultural chemicals) exist or are likely to exist. The NDEQ can designate a Groundwater Management Area based off of detailed field studies (see table) conducted by NDEQ personnel. NRDs can also designate Groundwater Management Areas acting on their own authority, the Ground Water Management and Protection Act. To date, the NDEQ has designated three areas and 22 of the NRDs have designated GWMAs within their jurisdiction. The NRDs are responsible for implementation of many aspects of this program. More recently, four NRDs have worked together along with the NDEQ to designate the Bazile Groundwater Management Area along with a plan to address nitrate issues. Public outreach and Best Management Practices are a large component of this plan.

NDEQ Detailed Studies of Groundwater Quality

Beatrice/DeWitt, 1988	Northern Middle Republican, 1995
Superior, 1988	Lower Republican, 1996 - 1997
Fremont, 1988	Eastern Cheyenne County, 1996
Eastern Upper Big Blue, 1989	Box Butte County/Mirage Flats, 1998
Wilcox/Hildreth, 1989	Southern Lower Elkhorn, 1999
York/Polk County, 1990	Eastern Lower Loup, 2000
Red Willow/Hitchcock Co., 1990	Eastern Sheridan County, 2001
Western Upper Big Blue, 1991	Humboldt, 2001
Eastern Little Blue, 1992 - 1994	Keith-Lincoln County, 2002 - 2003
Deuel County, 1992	Bazile Triangle, 2004
	North of Swanson Reservoir, 2005

Underground Injection Control (UIC) — The Underground Injection Control (UIC) program reviews and issues permits, conducts inspections and performs compliance reviews for wells used to inject fluids into the subsurface. The program must ensure that injection activities are in compliance with state and federal regulations, and that groundwater is protected from potential contamination sources. Injection wells are classified by activity. Most wells are Class I, II, III, and V wells. Class II wells are associated with oil and gas production, and are regulated by the Nebraska Oil and Gas Conservation Commission. NDEQ has authority over and manages Class I, III, and V wells. Class IV wells are illegal and have never been allowed in Nebraska.

Three Class I injection wells are currently permitted within the state. The permits are issued for injection of wastewater below the lowermost underground source of drinking water. Two Class I well permits are issued to the Crow Butte Resources uranium mine near Crawford and the other to the City of McCook.

Class III wells are used to inject fluids for the purpose of extracting minerals. The only Class III wells in the state are at the Crow Butte Resources uranium facility near Crawford. Crow Butte Resources operates over 5100 Class III wells as of October 1, 2016.

Injection wells not included in the other specific classes are considered to be Class V wells. Common examples of Class V wells include: open-loop heat pump systems, large capacity septic systems, and sub-surface drip irrigation systems.

Mineral Exploration Program — The Mineral Exploration program issues and reviews permits, conducts inspections, and performs compliance reviews for holes drilled, driven, bored, or dug for the purpose of mineral exploration. These permits are issued to persons exploring for potential mineral resources such as consolidated rock; sand and gravel; or material commingled, in solution, or otherwise occurring beneath the surface or in waters of the State, and are regulated under Title 135 – Rules and Regulations for Mineral Exploration Holes. This type of exploration specifically excludes oil and gas exploration, which is regulated by the Nebraska Oil and Gas Conservation Commission.

Wells that are drilled for the production of mineral resources are regulated as Class III injection wells, and are governed by Title 122 – Rules & Regulations for Underground Injection and Mineral Production Wells.

Wellhead Protection — The State Wellhead Protection program is a voluntary program, which assists communities and other public water suppliers in preventing contamination of their water supplies. State Wellhead Protection Program activities include delineating the zones of influence which may impact public supply wells, training communities on how to inventory all potential sources of pollution within these vulnerable zones, working with the local officials to identify options to manage these potential pollution sources, working on monitoring plans, and helping develop contingency plans to provide alternate water supplies and site new wells. All community public water supplies have a Wellhead Protection Area map. The Nebraska Legislature passed LB 1161 in 1998 (Neb. Rev. Stat. §46-1501 - 46-1509), authorizing the Wellhead Protection Area Act. This Act sets up a process for public water supply systems to use if they choose to implement a local Wellhead Protection plan. One hundred eleven community water supplies have approved Wellhead Protection Plans as of October 1, 2016.

Water Quality Planning

Surface Water Quality Standards

NDEQ develops water quality standards that designate the beneficial uses to be made of surface waters and the water quality criteria to protect these assigned uses. Title 117 - Nebraska Surface Water Quality Standards forms the basis of water quality protection for all surface water quality programs conducted by NDEQ. The federal Clean Water Act specifies that states review their water quality standards and revise where appropriate once every three years.

New federal rules at 40 CFR Part 131 regarding how states must conduct their Water Quality Standards programs under the federal Clean Water Act became effective October 20, 2015. Changes in the federal rule involve the EPA Administrator's Determinations, Designated Uses, Triennial Review, Antidegradation, Variances, and Compliance Schedule Authorizing Provisions. These new rules apply to Nebraska's Surface Water Quality Standards program and will require more accountability and reporting to EPA. Preparations were made during the year for the next triennial review of the Standards considering the changes in the federal requirements.

The standards are available on NDEQ's web page at <http://deq.ne.gov/>. In addition to developing the standards, the Water Division develops and implements procedures for applying the standards to surface water quality programs, such as NPDES permits.

Section 401 Water Quality Certification

The Water Division Planning Unit administers the Water Quality Certification Program in accordance with Section 401 of the Clean Water Act. This program evaluates applications for federal permits and licenses that involve a discharge to Waters of the U.S. and determines whether the proposed activity complies with Nebraska Surface Water Quality Standards. If the activity is likely to violate the standards, conditions for complying with the standards will be issued with the certification, or certification will be denied. The U.S. Army Corps of Engineers Section 404 Dredge and Fill Permits and Federal Energy Regulatory Commission licenses are examples of federal regulatory programs that require State Water Quality Certification before federal permits or licenses can be issued. NDEQ reviewed 366 Section 404 permit applications during FFY2016.

Although NDEQ has no permitting mechanism for projects in non-federally jurisdictional waters (such as isolated wetlands which are Waters of the State), voluntary procedures have been developed to assist project sponsors so they will meet state water quality standards. Project sponsors are encouraged to contact NDEQ before implementing their project so that the plans can be discussed in light of Title 117 - Nebraska Surface Water Quality Standards. NDEQ can then issue a Letter of Opinion which provides recommendations for implementing the project in a manner that protects water quality in streams, lakes, wetlands, and associated important wildlife habitat.

Impaired Waters and Total Maximum Daily Loads (TMDLs)

The Federal Clean Water Act, Section 303(d) requires states to prepare a list of impaired surface waters. These are waters that do not support the assigned beneficial uses as listed in Nebraska Surface Water Quality Standards. From this list, states are to prepare TMDLs that

include the pollution control goals and strategies necessary to improve the quality of these waters and remove the identified impairments so that these waters may meet their assigned beneficial uses. EPA and NDEQ have agreed to a new alternative to a TMDL which is designed to meet water quality standards quicker called a 5-alt. While a TMDL is still required of all waterbodies listed as impaired, this 5-alt provides a quicker alternative for planners to develop proper protection activities for a watershed where a project sponsor intends to implement BMPs.

As in previous years, NDEQ has opted to combine the required CWA Section 303(d) list with the Section 305(b) report on the general status of water quality in the state. This combination is referred to as the Integrated Report. The 2016 Integrated Report is available on NDEQ's web site <http://deq.ne.gov>, by selecting Water, then selecting Water Quality Planning. Or, the report's direct URL is: <http://deq.ne.gov/Publica.nsf/Pages/WAT234>. The 2016 Integrated Report was approved by EPA in April 2016.

The following table summarizes NDEQ's work in this area.

TMDL Category	TMDL Name	# of Waterbodies	Pollutant	Status
4a				
	Republican River Basin	1	E. coli	NDEQ Planning Draft Development
5-alt				
	Elkhorn River Basin Plan	8	E. coli	NDEQ & LENRD Developing Draft
	Nemaha River Basin Plan	7	E. coli	NDEQ & NNRD Developing Draft
	Papio-Missouri River Tributaries Plan	3	E. coli	NDEQ & PMRNRD Developing Draft
	South Loup River Basin Plan	4	E. coli	NDEQ & LLNRD Developing Draft
	White River Basin Plan	5	E. coli	NDEQ & UNWNRD Developing Draft
	Lewis and Clark NRD Basin Plan	7	E. coli	NDEQ & LCNRD Planning Draft Development
	Lower Platte South Basin Plan	9	E. coli	NDEQ & LPSNRD Planning Draft Development

(LENRD = Lower Elkhorn NRD; NNRD = Nemaha NRD; PMRNRD = Papio-Missouri River NRD; LLNRD = Lower Loup NRD; UNWNRD = Upper Niobrara White NRD)

Nonpoint Source Management Program

The Nebraska Nonpoint Source Management Program is an integrated statewide effort to protect and improve water quality impacted by nonpoint source pollution. The program is of particular significance because nonpoint source pollution is the most prevalent, widespread cause of water quality degradation in Nebraska. Nonpoint source pollutants of particular concern in Nebraska include those associated with runoff and percolation from agricultural and urban areas. Initiated in 1990, the program is largely funded by the Environmental Protection Agency (EPA) through Section 319 of the federal Clean Water Act and involves a multitude of federal, state and local agencies and organizations.

State nonpoint source problems and priorities are defined in the primary guidance document of the Nonpoint Source Management Program: "Strategic Plan and Guidance for Implementing the Nebraska Nonpoint Source Management Program 2015-2030." The program emphasizes watershed and groundwater management area planning, targeting of 303(d)-listed impaired waters, community participation in watershed plan development. Eligible projects and activities were refined in the 2014 national Section 319 program guidance to emphasize implementation of 9 element watershed management plans.

Major components of the Nonpoint Source Management Program include development of 9 element watershed management plans, implementation of nonpoint source pollution management

projects through Section 319 grant funding, nonpoint source pollution monitoring and assessment, and program administration. Nonpoint source monitoring and assessment is an integral and crucial element for the successful implementation of the program. Water quality information is needed to identify and prioritize nonpoint source problem areas, develop watershed management plans and TMDLs, and evaluate the effectiveness of measures implemented to abate nonpoint source pollution. Nonpoint source monitoring activities conducted during the past year included investigative water quality evaluations, detailed watershed assessments, and effectiveness evaluations of implemented nonpoint source management measures.

In FFY 2016, the Nonpoint Source Management Program provided and managed 30 Section 319 grants to local sponsors of eligible projects in the two categories: 1) Large Competitive Projects (generally under \$300,000) and 2) Small Project Assistance (under \$15,000). Of the 30 grants managed, 27 were large multi-year projects, with total funds of all projects equaling \$3,897,185. Three small projects were managed with total funds equaling \$35,100. A total of 238 large projects have been funded through Section 319 funds since the beginning of the program in 1990 and have addressed both surface water and ground water quality concerns. The amount of 319 grants funds received by NDEQ between 1990 and 2016 totals \$71,569,848.

Major program highlights this year include the completed renovations of two lakes: Lake Helen in Gothenburg and Plum Creek Park Lake in Lexington. In addition, two success stories were submitted to EPA in 2016 regarding the delisting of impaired waterbodies as a result of 319 projects. Big Indian Reservoir in Wymore and Big Springs Community Lake in Big Springs were both fully restored for aesthetic use following watershed treatment and lake renovation.

Source Water Assessment and Protection

When Congress amended the Safe Drinking Water Act in 1996, one of the amendments created the Source Water Assessment Program (SWAP) for public drinking water protection. Every state has developed a Source Water Assessment Program with the following basic components:

- 1) Delineate the source of each public drinking water system;
- 2) Identify potential contaminants in the source area;
- 3) Determine the drinking water source's susceptibility or vulnerability to contamination; and
- 4) Make the assessments available to the public.

NDEQ is implementing their EPA-approved program in cooperation with the Nebraska Health and Human Services System, Nebraska Rural Water Association, the Natural Resources Districts, and numerous other stakeholders. All assessments were completed and distributed by August 2003; however, delineations continue to be updated as needed upon receipt of new information about public water supply systems.

Beginning in SFY2004, funds were set aside from the Drinking Water State Revolving Fund (DWSRF) to finance source water protection projects statewide. Funds are provided to political subdivisions that operate a public water system serving a population of 10,000 or less. Eligible activities address drinking water quality, quantity, and/or education within the source water protection area. To date, Source Water Protection funds have been distributed to complete 89 separate Source Water Protection projects throughout the state. In SFY2016, Source Water Protection funds were distributed to the following public water systems: Auburn, Fairbury, and Ohioa. The total amount available in SFY2016 was \$100,000.

Water Quality Data Handling and Storage

NDEQ has implemented the STORET electronic storage system for water quality data. This will make Nebraska surface water quality information available to anyone who has an internet connection. The web site for this information is www.epa.gov/storet. During FY2016, NDEQ continued to add monitoring results to the STORET database, monitoring results conducted on surface waters of the state. The end result will be the centralization of NDEQ's previous and current surface water quality monitoring information.

Wastewater Permitting and Certification Programs

There are a number of certification and permitting programs relating to wastewater treatment facilities, ranging from certification of those who work on septic systems to the permitting of large municipal facilities. These programs include:

- **Onsite Wastewater Treatment Facilities Program** – This program administers system design, professional certification and system registration requirements that affect mostly smaller wastewater treatment or storage systems, such as septic systems, household lagoons, and holding tanks, and anyone doing work on these types of facilities.
- **Wastewater Treatment Facility Operator Certification Program** – This program administers the certification program for wastewater treatment facility operators to ensure proper operation and maintenance of these facilities.
- **Wastewater Construction Permit Program** – The construction permit program establishes design standards for commercial, industrial, and municipal wastewater facilities that are planned for construction. The program also maintains regulations for the operation and maintenance of wastewater facilities and for the proper abandonment of facilities when they are removed from service.
- **The National Pollutant Discharge Elimination System (NPDES) Program** – This program is responsible for regulating discharges of pollutants to Waters of the State to maintain and protect the water quality of Nebraska's streams, lakes, rivers, and groundwater. Other NPDES-related programs include:
 - **Combined Sewer Overflows** -- to address municipalities that have combined storm water and wastewater sewer systems.
 - **Wastewater Treatment Sludge and Biosolids Disposal** -- requirements for treatment and disposal of municipal and industrial wastewater sludges and biosolids, and
 - **Storm Water Permit Program** -- involves: 1) Construction sites of a specific size; and 2) the Municipal Separate Storm Sewer System permits for medium and large municipalities.
- **The Nebraska Pretreatment Program** -- This program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industries.

NDEQ initiated the **Assessing Wastewater Infrastructure Needs (AWIN)** project to assist Nebraska communities with environmental compliance with existing or upcoming regulations. The project is based in NDEQ's Wastewater Division, but it can involve other NDEQ programs, as well as other state and local agencies.

Many communities in the Upper Great Plains States and other regions of the country have population declines, aging populations, declining median household income, and limited or no job availability, all of which lead to limited resources to operate their utilities. AWIN uses data from the latest census and other available data sources to generate a rating for communities using modeling tools. NDEQ uses this information, the communities' input, their consultants' input, and NDEQ observations to make adjustments in standard procedures and design conditions. A few examples of changes include better interest rates on loans, longer compliance schedules, and designs which take into account future declining population.

Onsite Wastewater Treatment Facilities Program

The requirements administered by the Onsite Wastewater Program cover septic systems, wastewater holding tanks, individual household wastewater lagoons, and other decentralized wastewater treatment systems not connected to municipal wastewater treatment systems. The majority of onsite systems are for single households. However, there are onsite or decentralized systems that provide wastewater treatment for multiple houses (these systems are sometimes called cluster systems), mobile home parks, churches, recreational facilities, camper trailer parks, a variety of businesses with high strength wastes (such as restaurants, butcher shops, and wineries), equipment maintenance buildings, and other commercial or industrial facilities. The U.S. EPA estimates that nearly one in four households depend on onsite systems for wastewater treatment.

The *Private Onsite Wastewater Treatment System Contractors Certification and System Registration Act (Act)* passed in 2003 required that anyone doing work associated with onsite wastewater systems be certified by the State of Nebraska. The Act provided for the registration of all onsite wastewater systems constructed, reconstructed, altered, or modified. The law also provided for certification and system registration fees to support the program.

The Act was amended in 2007 by LB333, which provided for application fees for permits and subdivision approvals and established a fee waiver provision for government inspectors. Nebraska Administrative Code *Title 124 – Rules and Regulations for the Design, Operation and Maintenance of Onsite Wastewater Treatment Systems* was last amended, effective August 11, 2012. Onsite wastewater or septic system regulations administered by NDEQ were first enacted in 1977.

Certification of onsite professionals covers design, installation, inspection, maintenance, and pumping of onsite systems. Subdivision review and approval requirements apply when onsite systems will be used on any proposed development lots that will have less than three acres suitable for building. Program staff work to make sure that the design, installation, modification, repair, and maintenance of onsite wastewater systems is performed by certified professionals who understand Title 124 and the proper practices of their trade.

The Onsite Program is focused on the protection of surface and groundwater in the area of proposed onsite systems through the use of standardized design requirements, the certification of onsite professionals, review and approval of plans for subdivision development, and review of plans and issuance of permits for large onsite systems.

A certification by examination is required for professionals to obtain initial certification. Currently, 526 people hold onsite wastewater certificates. Some professionals obtain certification in multiple categories. The categories of certification are: Installer (Master and Journeyman), Pumper (Master and Journeyman), Inspector, and Soil Evaluator. Current certificates expire December 31, 2017, and may be renewed via continuing education requirements or re-examination. Certificates must be renewed every two years.

The registration requirement for onsite wastewater systems provides a statewide inventory of new or modified onsite systems. Since registrations began in 2004, nearly 19,500 systems have been registered, with 1,499 systems registered in FY16.

NDEQ has cooperative agreements with other governmental agencies (state and local) to help implement and coordinate the program. There are currently 16 certified inspectors from local

governments. NDEQ also works cooperatively with Nebraska Department of Health and Human Services personnel to resolve health-related onsite wastewater handling issues.

There were 189 new onsite-related complaints in FY16 and program staff resolved a total of 139 complaints, which includes both old and new complaints. Notices of Violation were issued to 26 entities. Typical types of complaints that are investigated include: failed systems that have a surface discharge, and which may pose a threat to public health or the environment, and installation or performance of work on onsite wastewater systems by individuals who are not certified by NDEQ.

The regulations set minimum design standards for all onsite wastewater treatment systems and include an “Authorization by Rule” provision which allows for the installation of typical onsite systems by a certified professional and subsequent operation by the owner without a site-specific construction or operating permit. These standard conforming systems constitute the vast majority of all new and replacement onsite systems.

Department engineers review construction/operating permit applications for systems that do not meet requirements for Authorization by Rule. Title 124 also provides for Department approval prior to construction of any subdivision with any lot less than three acres where onsite wastewater treatment is proposed. In the past year, the program received 51 applications for construction/operating permits and six applications (totaling 39 subject lots) for subdivision review and approval.

The Private Onsite Wastewater Treatment System Advisory Committee advises NDEQ on administration of the Act and proposed rules and regulations. Program staff have worked and continue to work with many organizations to educate the public about the importance of proper installation and maintenance of onsite wastewater treatment systems and to improve the knowledge and skills of the various practitioners who install and maintain onsite systems. These groups include: local health offices, county and city planning and zoning, the Nebraska Onsite Wastewater Association, the Nebraska Onsite Wastewater Task Force, UNL Cooperative Extension, Nebraska Realtors, Nebraska Association of County Officials, and the Groundwater Foundation,

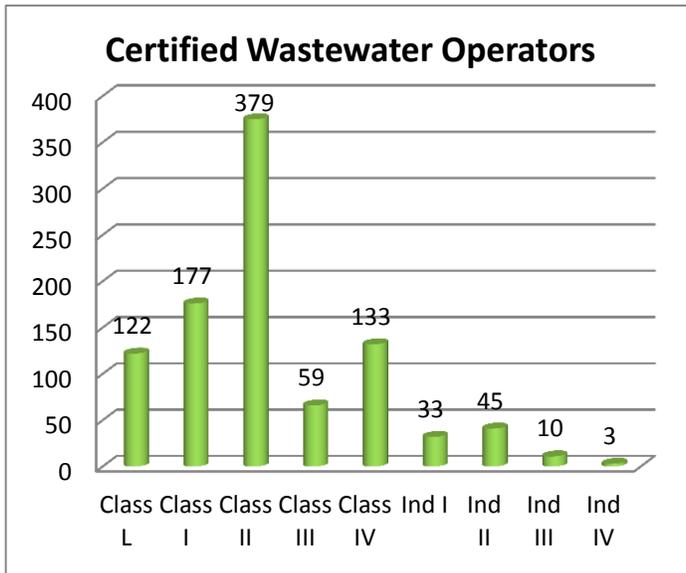
Wastewater Treatment Facility Operator Certification Program

Competent and qualified operators are a critical component to ensure that wastewater treatment plants are well run and protect the environment. The life span of treatment facilities can be prolonged and proper operation and maintenance programs can protect the owner’s substantial financial infrastructure investment. The Wastewater Treatment Facility Operator Certification Program was established to help accomplish this. The program administers the operator certification program, which includes administering certification exams, issuing certificates, evaluating continuing education programs, tracking certificate compliance, processing certificate renewals, and conducting facility ratings to determine operator needs, in addition to continuing to evaluate ways to help wastewater treatment facility operators obtain continuing education to maintain their certification and help them do their jobs.

This program administers nationally accredited certification exams to new wastewater operators, or to operators wishing to advance their credentials, and issues certification renewals for operators who have obtained the necessary Department-approved continuing education as provided for in *Title 197 – Rules and Regulations for the Certification of Wastewater Treatment Operators in Nebraska*. Staff will continue to monitor those facilities that are required to have certified operators and work with them to help them comply with the regulations.

Municipal, commercial, compatible industrial facilities, and non-compatible industrial facilities are required to employ certified operators based on the point rating assigned to each facility by NDEQ. The point rating for each facility is based on the design flow, type of treatment, instrumentation and control systems, and laboratory analysis requirements at each location. Certified Operators for municipal, commercial, and compatible industrial facilities are classified under the following categories: Class L (lagoons), Class I, Class II, Class III, and Class IV, according to the type of facility and its point rating. Certified operators for non-compatible industrial facilities are classified under the following categories: Industrial I, Industrial II, Industrial III, and Industrial IV, according to the type of facility and its point rating.

The Wastewater Operator Certification Program currently has 871 certified operators with municipal/compatible certificates. In



addition, there are currently 90 certified operators with industrial certificates (see chart at left for a breakdown of certified wastewater operators by category).

NDEQ also reviews applications and issues operator certification exemptions for towns and other entities that have full-retention non-discharging lagoon wastewater treatment facilities that may not require qualified operators due to very limited maintenance and operational needs. The exemption is for a fixed four-year period and the period under current review will end at the end of 2016. NDEQ has contacted a total of 257 facilities potentially eligible for the exemption and, of these, issued four-year operator exemptions to 221 facilities.

In FY16, NDEQ provided 13 Discharge Monitoring Report training sessions and eight operator certification examination sessions. Testing of municipal and industrial wastewater treatment facility operators will continue in FY17.

Wastewater Construction Permit Program

The Wastewater Section administers Nebraska's construction permit program for wastewater facilities built in the state. Industries, commercial facilities, and municipal utilities are required to submit the plans and specifications for their projects to NDEQ for review and approval. The construction documents are reviewed to make sure that the collection systems and treatment facilities will function properly and protect the public and the environment from adverse effects.

In FY2016, DEQ reviewed and approved designs for a wide range of projects, including a sewer system for the new Omaha National Cemetery, livestock truck washes, Omaha CSO projects, municipal disinfection systems, and a variety of commercial upgrades. For FY2016, a total of 221 wastewater projects were submitted to NDEQ for review and approval.

Nebraska's design standards for wastewater facilities are found in NDEQ *Title 123 -- Rules and Regulations for the Design, Operation and Maintenance of Wastewater Works*. These standards are updated periodically to keep Nebraska in agreement with regional standards. The

state's design standards are written to encourage the use of proven technologies, but have also allowed the use of innovative designs where they are appropriate.

Title 123 also contains basic rules for the operation and maintenance of collection systems and treatment facilities. One chapter has rules for the proper abandonment of wastewater facilities which have been removed from service. The abandonment rules are intended to protect the public from unsafe site conditions and allow the property to be redeveloped for other uses.

A considerable amount of time every year is spent working with communities that need to upgrade their facilities. Section engineers meet regularly with municipal officials, funding agencies, and consulting engineers to develop affordable projects for Nebraska's communities. AWIN principals were used to evaluate projects for small communities. The section also met with food processing industries, power generating plants, manufacturing facilities, and with several groups who plan to anaerobically digest organic waste products to capture methane.

NDEQ staff recently met with officials from Sarpy County who are planning to create a regional wastewater utility to serve the southern part of Sarpy County. This region is a future growth area. The Agency continues to have quarterly meetings with the City of Omaha to discuss their combined sewer separation project. The meetings have provided an excellent forum for reviewing regulatory and engineering issues. NDEQ has now issued construction permits for 38 of the more than 80 CSO projects that Omaha is expecting to construct during the 18 year construction period.

National Pollution Elimination System (NPDES) and Related Programs

The Wastewater Section administers permitting programs that regulate point source dischargers of water pollutants, including:

- **The National Pollutant Discharge Elimination System (NPDES) Program**, which is responsible for regulating discharges of pollutants to waters of the State so as to maintain and protect the water quality of Nebraska's streams, lakes, rivers, and groundwater. NPDES programs also include:
 - **Combined Sewer Overflows**, which addresses those municipalities that have combined storm water and wastewater sewer systems.
 - **Wastewater Treatment Sludge and Biosolids Disposal**, which are requirements for treatment and disposal of municipal and industrial wastewater sludges and biosolids,
 - **Storm Water Permit Program** – This permit programs involves: 1) Construction sites of a specific size; 2) the Municipal Separate Storm Sewer System permits for medium and large municipalities; 3) Industrial facilities.
 - **The Nebraska Pretreatment Program**, which functions to protect municipal wastewater collection and treatment systems from damage or overloading by industries.

Activities include issuing permits to monitor and limit pollutants in wastewater discharges and evaluate compliance with the permits and other applicable regulatory requirements of the programs.

NPDES Permits

Anyone who directly discharges pollutants to waters of the state is required to obtain a permit. NPDES permits control pollutant discharges by establishing wastewater limitations for pollutants and/or requiring permittees to maintain certain operational standards or procedures. Permittees are required to verify compliance with permit requirements by monitoring their wastewater, maintaining records, and/or filing periodic reports.

NDEQ is responsible for developing and issuing NPDES permits, and for ensuring that permitted facilities comply with permit requirements. The regulatory basis for this program is through an Environmental Protection Agency (EPA) delegation agreement with the Department and NDEQ *Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System*. The Nebraska NPDES program encompasses a number of different types of discharges including: municipal, commercial and industrial wastewater discharges; livestock waste control; industrial discharges to public wastewater treatment systems (also known as the Nebraska Pretreatment Program); municipal combined sanitary and storm sewer overflows; and industrial and municipal storm water discharges. The graph on the next page titled "NPDES Discharge Authorizations" shows the distribution of permits issued to various types of NPDES dischargers, except Livestock. Information regarding Livestock NPDES permits is found on page 57 of this report.

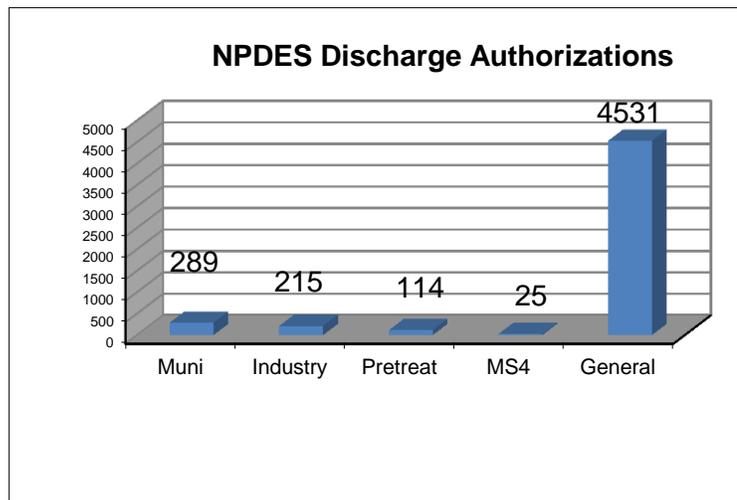
Most NPDES permits limit the discharge of pollutants by establishing effluent limitations for specific pollutants such as carbonaceous biochemical oxygen demand, total suspended solids, and ammonia among others. The permittee is then responsible for testing their wastewater discharge to ensure that the limits are not exceeded. Permits may also limit toxicity in effluents and

permittees may be required to demonstrate that their wastewater is not toxic to aquatic organisms (e.g., daphnia or fathead minnows). The permit may also require development of Best Management Practices Plans to reduce or control pollutant discharges.

The permit development process involves identifying the pollutants of concern, and then developing permit limits based upon the more stringent of either technology-based standards or water quality based standards. Technology-based standards reflect effluent quality that can be achieved using treatment technology that is available to the permittee. NDEQ Title 119 sets forth technology-based standards for municipal facilities and many types of industrial facilities. Technology-based standards can also be developed on a case-by-case basis when necessary.

Water quality based limits are the limits necessary to meet the in-stream water quality standards established in NDEQ *Title 117 - Nebraska Surface Water Quality Standards*. In some instances, where a surface water/groundwater interconnection may be of concern, NPDES permit limits may be based upon NDEQ *Title 118 - Groundwater Quality Standards and Use Classification*.

Permits may be developed and issued on an individual site-specific basis, or they may be developed and issued to apply to facilities with similar activities or effluent characteristics. These two types of permits are respectively referred to as individual permits and general permits. To date, the department has developed and issued general permits for the following activity categories: hydrostatic testing, dewatering, land application of concrete grooving/grinding slurry, pesticides applications to, over, and near Waters of the State, gasoline contaminated groundwater remediation projects, petroleum product contaminated groundwater remediation projects, construction site storm water, and industrial site storm water. Municipal Separate Storm Sewer System (MS4) permits have been issued to entities, including metropolitan areas and counties that meet the criteria of the NPDES Storm Water Program. There currently are 23 metropolitan areas and counties in Nebraska that have received MS4 permits, as well as the Nebraska Department of Roads, and the University of Nebraska-Lincoln. The Construction Storm Water General Permit was reissued, effective November 1, 2016. The Industrial Storm Water General Permit was issued on July 18, 2016. During FY2016, online application processes were utilized for these general permits which streamlined the issuance of coverage to applicants. Determinations for coverage can now be made within a couple of days for qualified applicants.



There are 616 facilities with discharge authorizations under individual permits (municipal, industrial and pretreatment), and 25 municipal storm water permits (MS4). There are 4,531 active facilities authorized to discharge under other general permits. The graph titled "NPDES Discharge Authorizations" (above) provides a summary of this information. The general permits include 3,415 active authorizations under the construction general storm water permit, 165 dewatering including Omaha, 46 hydrostatic testing, 862 industrial storm water, 42 pesticide, and 43 Treated Ground Water Remediation Discharge sites.

Municipal and Industrial Facilities

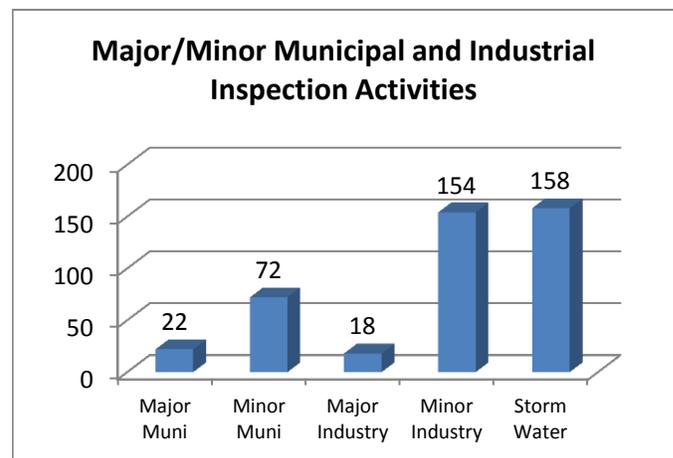
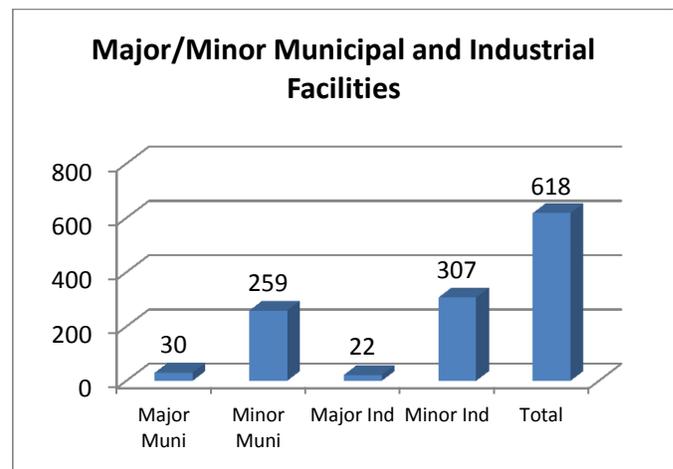
Industrial and municipal facilities are both grouped as major or minor facilities based upon their size and/or their potential to impact the receiving stream. The chart titled "Major/Minor Municipal and Industrial Facilities" provides a numeric break down of these types of facilities.

Municipal and industrial facilities are required to verify compliance with numeric permit limits by monitoring their effluents (i.e., self-monitoring). Monitoring frequency can vary from daily to annually depending upon the pollution and impact potential of the facility. The facility must report monitoring results to the Department; typically this is done on a quarterly basis. However, monitoring results that indicate non-compliance with permit requirements must be reported verbally within 24 hours. Records of all monitoring activities must be kept for a period of three years.

The Section verifies compliance through a variety of activities including reviewing discharge monitoring reports, following up on complaints and incident reports, conducting on-site inspections, and performing effluent monitoring inspections.

During on-site inspections, section personnel walk through the facility and review operational procedures and records. Major industrial and municipal facilities receive annual on-site inspections. The priority of minor facilities inspections is based on discharge compliance histories, incident reports and complaints. Inspectors performed 424 NPDES inspections in Fiscal Year 2016. A breakdown of those inspections is provided in the chart at right. The minor industrial inspections include 108 pretreatment inspections. During selected effluent monitoring inspections, effluent samples are collected and analyzed by the Department to compare with self-monitoring results. Facilities selected for effluent monitoring inspections are chosen based upon pollution potential, past compliance or incident report histories, complaints, and/or Basin Management Approach priorities.

Data generated by facility monitoring and Department on-site and effluent monitoring inspections are reviewed and entered into the federal Integrated Compliance Information System (ICIS) computer database. This database is used to generate facility reports and review facility compliance history.



Combined Sewer Overflows

The Combined Sewer Overflow (CSO) program addresses Omaha's combined storm water and wastewater sewer systems. Omaha's systems were built prior to the existence of secondary sanitary wastewater disposal standards. When storm or snow melt runoff is occurring, these systems may become hydraulically overloaded and excess water flows bypass the treatment system. When bypasses occur, untreated wastewater is discharged into the receiving stream.

The City of Omaha has combined sewers that are subject to storm-induced bypasses of untreated waste. The City submitted a substantively complete long-term control plan on October 1, 2007 in compliance with an Administrative Consent Order between the City and NDEQ. On September 25, 2009, the City submitted their Final Long Term Control Plan, also in compliance with the Administrative Consent Order. This order initially required Omaha to complete the long-term control plan projects by 2024. In 2012 the order was modified to add an additional three years due to the 2011 Missouri River flood. The projects included in the plan span 18 years and are estimated to cost \$1.5 billion. The goal of the projects is to reduce or eliminate combined sewer overflows and comply with State and Federal regulations.

The City of Omaha's CSO NPDES permit has been re-issued effective October 1, 2010 and includes a schedule for project implementation. This schedule utilizes the first five years of project implementation as defined by the Long Term Control Plan.

Wastewater Treatment Sludge and Biosolids Disposal

Disposal requirements for municipal and industrial wastewater treatment sludges or biosolids can be incorporated into NPDES permits. These sludge disposal requirements assure that sludges or biosolids are treated and disposed in a manner that is environmentally sound and protective of human health. Beneficial use, such as land application of biosolids, is strongly encouraged.

On Feb. 19, 1993, the EPA published the federal sludge regulations. Under these regulations, an estimated 330 municipal facilities in the state have additional sludge monitoring requirements. These additional requirements include increased metal and nutrient content analyses; improved records for tracking the amount of sludge and metals applied to each disposal site, and cumulative disposal limits. The Department has not sought delegation of this program from the EPA. The program is managed out of the EPA Region 7 office in Lenexa, KS.

Storm Water Program

In compliance with federal regulations, the NPDES Storm Water Phase I and Phase II Programs regulate the discharge of pollutants in storm water from certain construction sites, industrial facilities and municipal storm sewer outfalls. Phase II was promulgated by EPA in March of 2003. Storm Water Phase II federal regulations lowered the threshold for coverage of construction sites from five acres or more to one acre or more. And, sites that are less than one acre can also be regulated in Phase II, if they are part of a common plan of development or sale. The industrial facilities are defined to include a number of different types of facilities in addition to typical process industries (e.g., landfills, wastewater treatment sites, recycling centers, scrap yards, mining operations, transportation facilities, and hazardous waste facilities). These regulations also increase the number of municipalities and urban areas that are subject to the NPDES program for storm water discharges.

The cities of Omaha and Lincoln were subject to the Municipal Separate Storm Sewer System (also known as the MS4) Program with the implementation of Phase I. Lincoln was issued an MS4 Permit on September 1, 2002. This permit was reissued on July 1, 2008 and January 1, 2013. The Omaha MS4 Permit was issued on October 1, 2003 and was reissued in October 1, 2008. Phase II has expanded the areas requiring coverage under an NPDES MS4 Permit to include the urbanized areas in Douglas, Sarpy, Lancaster, Washington and Dakota Counties. An NPDES permit for Douglas, Sarpy and Washington Counties was issued effective August 1, 2004 and reissued October 1, 2009. The Dakota County MS4 permit was issued effective December 1, 2004.

The Department determined that the communities of Beatrice, Columbus, Fremont, Grand Island, Hastings, Kearney, Lexington, Norfolk, North Platte and Scottsbluff were exempt as of December 20, 2002. However, new approved Total Maximum Daily Loads and a review of the criteria for each municipality, made all subject to Phase II regulations for MS4s. A statewide general permit was issued January 1, 2006. The Storm Water Management Plans for all of these cities have been received, public noticed and each of these communities was authorized under this general permit. These permittees have entered into a cooperative agreement to form the Phase II Storm Water Cooperative. Their Storm Water Management Plans are being coordinated so that development work and implementation plans can be shared between them. The NDEQ is working closely with this group. The re-issuance of the statewide general permit for small MS4s is scheduled in Fiscal Year 2017. Dakota County, South Sioux City, and Dakota City will also be covered under this state-wide permit when it becomes effective.

Nearly \$1.825 million in grant funds was awarded in FY2016 to MS4 permittees. This program, established by Legislative Bill 1226 in 2006, is awarded annually for implementation of the MS4 communities' Storm Water Management Plans. The grant is distributed by population and requires a matching 20% from each of the grantees. Funds are distributed near the end of each calendar year.

Two general permits have been issued to provide coverage for industrial facilities and construction sites. Both of these general permits require the permittee to develop Storm Water Pollution Prevention Plans to control and reduce the discharge of pollutants. The NPDES General Permit for Storm Water Discharges from Construction Sites, NER160000 is effective November 1, 2016. The NPDES General Permit for Storm Water Discharges from Industrial Activity, NER910000, was issued July 18, 2016. The new permit continues benchmark monitoring for certain industrial activities.

Nebraska Pretreatment Program Permits

The Nebraska Pretreatment Program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industrial dischargers. The pretreatment regulations are found in Title 119. The rules and regulations set forth prohibited discharge standards that apply to all industrial users of publicly owned wastewater treatment facilities and require permits for significant industrial users. The significant industrial users are determined by one of several means: 1) the existence of an industrial category for which pretreatment discharge standards are established in NDEQ Title 119; 2) the volume or strength of the wastewater discharged from the facility; or 3) the potential of the industrial user to adversely affect the wastewater collection or treatment facilities.

The authority for establishing the Pretreatment Program is derived from the NPDES program requirements set forth in Section 402 of the Federal Clean Water Act. The issuance procedures and general format of Pretreatment Program and NPDES permits are very similar. Permittees are required to carry out self-monitoring activities, maintain records and submit periodic reports.

Compliance activities include report reviews, on-site inspections and compliance monitoring inspections. Compliance data are entered into ICIS to facilitate compliance review activities.

Although the Pretreatment Program is really a subprogram of the NPDES program, administration of this program requires more coordination and cooperation with local municipal officials. To accomplish this, the Department has entered into Memorandums of Agreement (MOAs) with 11 communities describing respective city and state responsibilities. The agreements vary in nature depending on the size and capabilities of the community. Omaha and Lincoln are the most active municipal partners, accepting responsibility for a large variety of activities including facility sampling, inspections, complaint investigations, permit reviews, and industrial user technical assistance. Other communities rely more heavily upon the State for compliance inspections and technical reviews. However, all cities with agreements conduct initial complaint or incident investigations, report significant incidents to the Department and assist in permit development by reviewing draft permits. The Department is working with communities throughout the state to get them more involved in the pretreatment program and to improve cooperative efforts in this program.

State Revolving Loan Fund Programs

The Water Quality Division's Financial Assistance Section administers distribution of state and federal assistance for the Clean Water State Revolving Loan Fund and the Drinking Water State Revolving Loan Fund.

Clean Water State Revolving Loan Fund

The Nebraska Clean Water State Revolving Loan Fund (CWSRF) program provides low-interest loans and small community matching grants to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems to alleviate public health and environmental problems. The loan principal repayments go into new loans, and interest earnings on the Fund are used to pay off the state match bond issues and to make new loans.

The CWSRF program receives an annual federal EPA capitalization grant. A 20% state match, required to obtain the federal grant, is provided through Nebraska Investment Finance Authority (NIFA) bond issues. After 28 years of activity, the Fund's Net Assets have reached \$286.5 million. Since its inception, the CWSRF has provided loans for 281 projects with a cumulative loan award amount of \$577.8 million.

In State Fiscal Year (SFY) 2016, the CWSRF funded projects totaling \$35,788,260 in loans and \$762,350 in loan forgiveness and grant funds.

The EPA awarded the 2015 capitalization grant, in the amount of \$7,107,000, in June of 2015. A \$1,425,000 bond was used to match this federal grant.

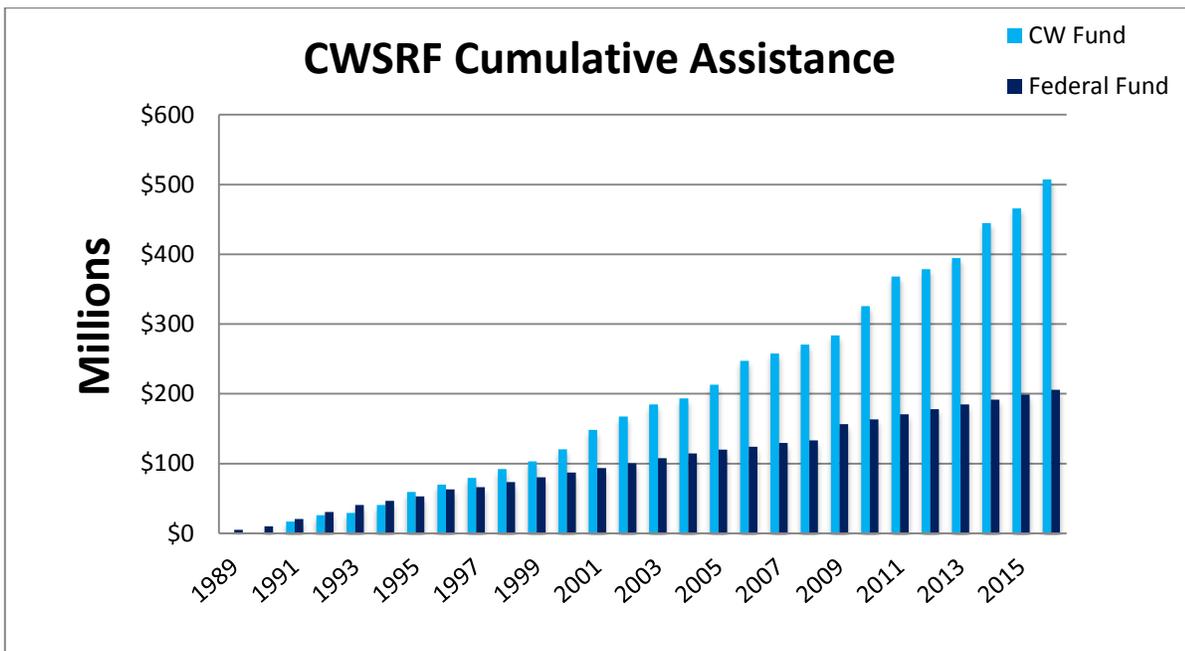
Initiatives for the SFY 2016 for the State Revolving Fund Program include:

- The Program is implementing Northbridge Loans and Grant Tracking System (LGTS) software purchased with the 4% set-aside funds from both CWSRF and DWSRF. The Agency began the development phase of the LGTS software during SFY 2014, and is anticipating this phase to be completed during SFY 2017. Once dependable, reconciled results will be established, the existing internal system will be discontinued, and LGTS will become the sole system for use within the SRF program alongside the State Accounting system.
- Inclusion of Fiscal Sustainability and Cost and Effectiveness Analysis wording to Title 131 was introduced to the EQC in November 2015. The amendments were approved and signed by the Governor on May 26, 2016.
- Clean Water Act amendments from 2014 such as CWSRF eligibilities and extended loan terms required Nebraska State Statute changes and have taken longer to implement into Title 131. LB737, approved by the Governor in February 2016, provided these statute changes and NDEQ is currently proposing amendments to Title 131 to incorporate these additional amendments and is planning to present these changes to the EQC in June 2017.
- NDEQ proposed changes to Title 131 for implementation of LB514, which includes the approval of the Linked Deposit Program, to the Environmental Quality Council (EQC) on June 14, 2016 which the council approved. At the time of this report, the proposed Title 131 revisions are awaiting the Governor's approval.

Municipalities Receiving CWSRF Loans in SFY 2016

Municipality	Loan Date	Loan Amount	Principal Forgiveness Amount	Small Town Grant Amount	Total
Maxwell Amd #1	7/17/2015	\$50,000			\$50,000
Chester	8/5/2015	\$375,000	\$100,000	\$91,010	\$566,010
Grand Island Amd #1	9/17/2015	\$200,000			\$200,000
Grand Island	9/17/2015	\$4,800,000			\$4,800,000
Hartington Amd #1	10/23/2015	\$40,000			\$40,000
Oconto	10/28/2015	\$168,750	\$100,000		\$268,750
Allen	11/13/2015	\$796,000	\$100,000	\$250,000	\$1,146,000
Loup City	12/7/2015	\$235,300			\$235,300
Culbertson	12/15/2015	\$783,950			\$783,950
Sidney	12/18/2015	\$1,792,000			\$1,792,000
Firth	4/27/2016	\$433,660	\$21,340		\$455,000
York	5/16/2016	\$19,355,000			\$19,355,000
Superior	6/8/2016	\$114,000	\$100,000		\$214,000
Dakota City	6/27/2016	\$6,644,600			\$6,644,600
TOTAL		\$35,788,260	\$421,340	\$341,010	\$36,550,610

The graph reflects the cumulative loan assistance of CWSRF.



Small Community Matching Grants

In addition to and concurrent with loans, the CWSRF provides small community matching grants to financially distressed municipalities with a population of 10,000 or less. The Small Town Grant (STG) program has provided \$8.6 million in grant funding for 73 projects concurrent with a CWSRF loan since the start of the program. Many small municipalities find that needed projects are too costly without the additional grant subsidy provided concurrent with the CWSRF loan. During SFY 2008, legislation was passed providing the department with authority to allocate up to 65% of prior-year revenue from fees collected on CWSRF loans to the various grants. This legislation also increased the population level for eligible communities to 10,000 or less. The department intends to provide increased funding to as many qualifying projects as possible; therefore, for SFY2016, up to \$341,010 was available for small community grants, and any one community could receive a maximum of \$250,000. The program provided a total of \$341,010 in grant funds to the communities of Allen and Chester.

In SFY 2016, five planning grants for a total of \$100,000 from the Administrative Cash Fund were awarded to small communities. These communities identified wastewater treatment facility project needs. They were listed on the Project Priority List, have not received a planning grant in the previous five years, and have a population of 10,000 or less.

Drinking Water State Revolving Loan Fund

The Nebraska Drinking Water State Revolving Loan Fund (DWSRF) program provides low-interest loans and loan forgiveness to owners of public water systems. The loan principal repayments go into new loans, and interest earnings on the Fund are used to pay off the state match bond issues and to make new loans. An agreement between the NDEQ and the Nebraska Department of Health and Human Services, Division of Public Health (NDHHS-DPH), effective on October 30, 1997, defined the authority of the two agencies in administering the DWSRF program.

The DWSRF is similar to the Clean Water State Revolving Fund in that both obtain the required 20% state match through Cash Funds or revenue bonds, give low interest loans, and will be self-sustaining. The DWSRF is unique in that loans may be awarded to privately owned public water supplies. Other program differences include set-asides for program administration, technical assistance, wellhead protection, capacity development, and operator certification. After 19 years of activity, the Fund's Net Assets have reached \$174.5 million.

DWSRF Set Aside Funds and Administration Cash Fund

Administrative costs are being paid out of the Administrative Cash Fund and may include program operating costs for both NDEQ and NDHHS-DPH, including day-to-day DWSRF program management activities for both agencies. Also included are other costs associated with debt issuance, financial management, consulting, and support services necessary to provide a complete program.

The Small System Technical Assistance set-aside (2%) provides technical assistance to Public Water Systems (PWS) serving a population of 10,000 or less. This is accomplished through contracts with organizations with expertise in dealing with small systems and is coordinated by the NDHHS-DPH.

In FY2016, under the Local Assistance and Other State Programs set-aside (15%), six agreements for preliminary engineering reports totaling \$90,000 were awarded to high priority ranked communities to address public health issues associated with public water supplies, and \$100,000 for source water protection project agreements. The NDEQ administers these programs.

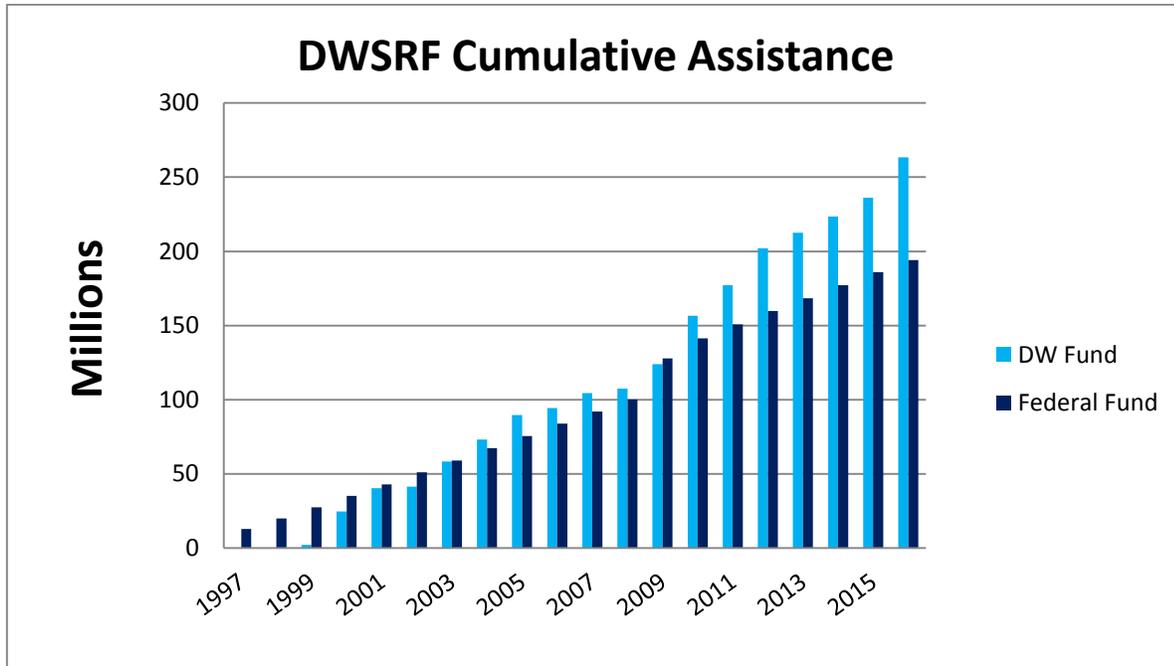
The State may use up to a total of 10 percent of the Capitalization Grant for the PWS Program Administration set-aside, but must provide a one-to-one state match as required by Section 1452(g)(2) of the SDWA. NDHHS-DPH used \$1,234,500 from the FFY 2015 Capitalization Grant to administer Nebraska's Public Water Supply Program during SFY 2016. That amount included \$350,000 of authority that had been previously reserved from past capitalization grants. DHHS-DPH has determined the set-aside eligibility by using program match and overmatch dollars for federal fiscal year 1993, cash, and in-kind contribution funds. The total of State funding available for one-to-one match to the \$1,234,500 was \$2,539,745.

Municipalities Receiving DWSRF Loans in SFY2016

Municipality	Loan Date	Loan Amount	Principal Forgiveness	Total
Holstein	7/2/2015	\$104,000	\$26,000	\$130,000
Overton	7/31/2015	\$624,713	\$0	\$624,713
Phillips	8/5/2015	\$364,000	\$196,000	\$560,000
Pleasanton	8/18/2015	\$365,640	\$34,360	\$400,000
Central City	8/27/2015	\$434,007	\$108,502	\$542,509
Osmond	8/28/2015	\$621,790	\$334,810	\$956,600
Oshkosh	9/3/2015	\$3,018,750	\$1,006,250	\$4,025,000
Grant	9/8/2015	\$1,725,384	\$431,346	\$2,156,730
Sarpy Cnty SID #29	12/11/2015	\$670,000	\$0	\$670,000
Falls City	12/21/2015	\$4,267,530	\$1,066,882	\$5,334,412
Sidney	1/25/2016	\$7,400,000	\$100,000	\$7,500,000
Weeping Water	2/22/2016	\$560,000	\$140,000	\$700,000
Edgar	3/29/2016	\$218,325	\$72,775	\$291,100
Hartington	4/20/2016	\$400,000	\$100,000	\$500,000
Lindsay Amd #1	10/26/2015	\$57,140	\$25,028	\$82,168
Utica Amd #1	12/18/2015	\$1,144,000	\$286,000	\$1,430,000
North Loup Amd #1	1/20/2016	\$162,500	\$87,500	\$250,000
*Elgin Amd #1	5/12/2016	-\$51,570	\$79,983	\$28,413
TOTAL		\$22,086,209	\$4,095,436	\$26,181,645

*Elgin's Loan Forgiveness eligibility increased from 20% to 25%

The graph reflects the cumulative loan assistance of DWSRF.



The 2015 DWSRF capitalization grant allocation totaled \$8,787,000. In SFY 2016, the DWSRF entered into 18 binding commitments to communities, including 4 amendments to already existing loans, to provided financial assistance to PWS projects totaling \$26,181,645, of which disadvantaged communities received \$4,095,436 in forgiveness funding. The Federal Fiscal Year (FFY) 2015 capitalization grant required that a minimum of 20% of the grant be reserved for additional subsidization (e.g., principal forgiveness).

In addition, from the FFY 2015 capitalization grant \$1,759,500 was allocated to the 10% (\$1,234,500), and 15% (\$525,000) Set-Asides. More details on the programs associated with these Set-Asides can be found in the Drinking Water State Revolving Fund Annual Report for SFY 2016 on our website at <http://deq.ne.gov/>.

CHAPTER 7:

Field Services and Assistance Division

The purpose of the Field Services and Assistance Division is to provide information and assistance to the public and the regulated community, as well as to conduct inspections, maintain monitoring programs, and manage specific projects. With regard to performing inspections, operating monitoring programs, and managing projects, Field Services staff coordinates all activities with the Agency's Air Quality, Land Management, Water Quality and Water Permits Divisions. Many of the agency's field activities occur out of NDEQ offices located in Omaha, Norfolk, Chadron, Scottsbluff, North Platte, and Holdrege. In January a new field office was located in Grand Island. There were no new staff added; a position was moved from the Holdrege office to Grand Island. This was done to decrease travel time and improve the Department's responsiveness.

In addition to the Field Offices, the Division consists of the following programs: Small Business and Public Assistance, Community Right-To-Know, Emergency Response, Homeland Security, and Quality Assurance.

Over the last year, the programs within the Field Services and Assistance Division have devoted efforts to a number of significant projects. A short summary of some of those efforts follow.

- The Division has played a coordinating role in the preparation of the monthly metrics report for the Governor's Office.
- The Division coordinates the activities of the NPPD/NDEQ Environmental Partnership. The Partnership was formed in 2000 to enhance communications between our organizations and to examine ways in which our organization's resources can be used more effectively. A primary Partnership project has been an annual conference, the Power Summit. The Summit brings electric utilities and local, state, and federal regulators together to discuss issues of mutual interest. Another Partnership effort involves collaborating with the UNL Partners in Pollution Prevention intern program. Partnership members worked with interns to explore ways to reduce energy consumption at publicly owned wastewater treatment facilities
- The Field Services and Assistance Division coordinates the review of, and response to, submissions pursuant to the National Environmental Policy Act (NEPA). The environmental assessments are conducted by five NDEQ programs: Air Quality, Waste Compliance, Storm Water, Wastewater, and Water Quality. The purpose of the assessments is to ensure related



On March 2nd there was a catastrophic failure of a liquid fertilizer tank at a Dorchester Coop facility. Approximately 165,000 gallons of product was released. See page 94 for more information about NDEQ Emergency Response efforts.

projects are conducted in an environmentally responsible manner and to give the project sponsors an early awareness of any potential permits that will be needed for a successful project. During FY2015, NDEQ received 72 new project notifications for NEPA review.

- The Community Right-to-Know Program works with Local Emergency Planning Committees to ensure the local first responders have information regarding hazardous materials in their communities. Additionally the Program provides assistance in planning and participating in emergency response exercises. The program also participates in educational activities. Over the last year the Program attended 15 Local Emergency Planning Committee meetings. Additionally the Program is the primary member of the State Emergency Response Commission, Education/Outreach Committee.
- The Emergency Response Program enhances NDEQ's ability to respond to releases into the environment to mitigate and reduce the environmental impact. The Program is responsible for securing equipment and coordinating and providing training for NDEQ's Emergency Response Team. Additionally, the Emergency Response Coordinator serves as NDEQ's Complaint Coordinator. The Complaint Coordinator implements the Department-wide notification system. The system is designed to increase the effectiveness and bring consistency to NDEQ's response to notifications and complaints.
- The Division, through the efforts of the Small Business and Public Assistance Coordinator and the Assistance Team, is responsible for the planning of NDEQ's annual Environmental Update – a one-day conference held for the regulated community and environmental consultants to provide an opportunity for NDEQ programs to present updates and explain new developments. In FY2016, the Environmental Update was held in Lincoln, Omaha and North Platte. There were also more focused Environmental Update Workshops held on the operations of ethanol plants and concentrated animal feeding operations in Norfolk and Grand Island.
- The Division, through the Small Business and Public Assistance Coordinator, arranges "One Stop Permit Meetings" with businesses, city representatives and others as appropriate, to help facilitate any environmental regulatory permitting requirements an incoming business may have. The intent of the meetings is to ensure the prospective businesses are familiar with their environmental regulatory responsibilities as soon as possible. There were eight One-Stop Permit Meetings during the reporting period.

Field Offices

The NDEQ Field Office Section is responsible for conducting compliance inspections, complaint investigations, environmental sampling, project management, and local compliance assistance for the agency's Air and Land Quality Division and Water Quality Division. The number of inspections and other duties performed by field office staff is incorporated in the charts and graphs provided by other divisions in the previous chapters. There are 15 employees in seven field offices around the state. A new office was added in Grand Island January 2016. This does not add new positions to NDEQ, but moves one position from the Holdrege Office to Grand Island. This has improved NDEQ's responsiveness and reduces travel time for inspections. The field offices enable the agency to provide the public with greater access to NDEQ staff, provide more timely response to issues raised by the public. Additionally, because Field Office staff live and work in their respective Field Office areas, they are able to help the Lincoln Office develop a better understanding of local issues.

Over the last year the Field Offices were instrumental in the initiation and use of a new form, the Inspection Exit Summary form. This form is used to formally document a facilities compliance status upon completing of an inspection. The use of the form provides the facility with documentation of their compliance status at the earliest opportunity. It also provides assurances that both the facility and NDEQ have a common understand of what actions, if any, must be taken by the facility to assure compliance.

One of NDEQ's goals is to have a strong community presence and build relationships with the public and with local entities. This is accomplished in a number of ways in the field offices. One way is by making personal one-on-one contacts with local governmental agencies that have mutual needs or responsibilities. Another way to establish a local presence is to participate on local task forces, boards of directors and emergency planning organizations. The feedback that the agency receives is that the NDEQ representatives who participate in these local organizations add depth and insight, which is highly valued. Another way a local presence is established is by participating in environmental education events in their regions. Building a strong community presence helps NDEQ carry out the work of preserving the state's natural resources and serving the citizens of Nebraska.

Small Business and Public Assistance Program

The Small Business and Public Assistance program (Program) was created as a result of the Clean Air Act Amendments of 1990. Congress saw the need to create a program to assist small businesses comply with ever more complex air quality regulations. From the beginning, NDEQ expanded the Program's scope to encompass all environmental media: air, waste management, and water.

Nebraska's Program is divided into four major components: the Small Business and Public Assistance (SBPA) program, the One-Stop Permit Assistance program, the Public Advocate, and the Small Business Compliance Advisory Panel. The Program Coordinator is involved with all four functions, as well as coordinating with other NDEQ personnel within NDEQ's programmatic Divisions. The Program Coordinator also serves as the coordinator for NDEQ's Compliance Assistance Team.

The Program includes site compliance assistance visits, development of outreach materials, workshops, and generally helping the regulated community to understand their obligations under state and federal law. The Program Coordinator is also responsible for NEDQ's annual Environmental Update, held this year in North Platte, Omaha, and Lincoln the week of May 16th. This was the second year the Environmental Update was held outside of Lincoln, and the first time for having three sessions. In addition to the general Environmental Update session, the NDEQ held three

industry-focused workshops in November – two focused on the ethanol industry and one workshop in December on regulations associated with Concentrated Livestock Feeding Operations.

The Program Coordinator works with representatives of the Nebraska Public Power District to organize and host the annual Power Summit. A primary objective of the Summit is to enhance the dialogue that has been established between the power industry and the associated regulatory agencies. The 2015 Power Summit was held on October 28th in Lincoln.

The One-Stop Permit Assistance Program was established to offer information and permit application assistance to the regulated community. A primary objective of the One-Stop Program is to ensure businesses are aware of the permits they are required to apply for, know information they will need to provide in the application process, and ensure that inquiries receive a timely response. The Program Coordinator conducted meetings with six potential project sponsors over this reporting period.

The Public Advocate serves as the ombudsman for purposes of the Clean Air Act requirements, receiving requests for regulatory information or environmental complaints from the public and ensuring NDEQ is accessible and responsive to public concerns. In this role, the Program Coordinator provided outreach to individuals to address specific questions and concerns. The Program Coordinator worked with two Nebraska businesses that had concerns regarding NDEQ's interpretation of environmental requirements affecting their operations during the reporting period.

The Small Business Compliance Advisory Panel is composed of seven members: two representatives from the general public selected by the Governor, four representatives from small businesses selected by the Legislature, and one representative selected by the Director. The panel evaluates the effectiveness of the Program, providing feedback on outreach and education methods and identifying program obstacles. The Panel members met with NDEQ staff to discuss several issues during their annual meeting in November 2015, and provided their annual report to the Governor in December. The following is an excerpt from the report to the Governor.

“...there will be individuals who will be hesitant to contact the Department; hence one of the reasons for the SBCAP. To complement NDEQ's assistance outreach efforts in 2016, we are looking to educate the public in the role that the SBCAP can play in environmental assistance through participation in the 2016 NDEQ Environmental Update workshops and sponsoring lunch hour or mid-day meetings in our communities where DEQ staff can present on different outreach or regulatory topics that are pertinent.”

With respect to this effort, each of the general Environmental Updates had a member of the SBCAP talk about the Panel and their efforts and availability to field questions for the regulated community.

Finally, the Small Business and Public Assistance Coordinator, the NDEQ Compliance Assistance Team, and various programmatic inspection supervisors developed a Permit Assistance Visit (PAV) program, an initiative by Director Macy to promote Department-wide compliance assistance through outreach to the regulated community when the Department issues or renews a permit. The Department began offering PAVs in February.

Community Right-To-Know Program

The Community Right-to-Know Program provides assistance to facilities subject to the Nebraska Emergency Planning and Community Right-To-Know Act and the related federal Emergency Planning and Community Right-To-Know Act. These regulations are designed to: 1) increase the public's

access to information concerning the presence and release of hazardous chemicals in their communities; 2) provide emergency planning and response information to ensure first responders have information to safely respond and plan for incidents related to hazardous materials; and 3) provide information on toxic chemical releases to the environment. Compliance assistance is available to any persons or facilities requesting it through the division. The EPA enforces violations of this program.

The Community Right-To-Know Program distributes outreach materials, responds to public requests for information, and receives and stores information required under this act. The information that facilities are required to provide NDEQ, includes: 1) a one-time report of an extremely hazardous substance at a facility that triggers the emergency planning process; 2) notification of any significant changes to a facility's emergency plans; 3) notification of the sudden release of a hazardous substance; 4) an annual report listing the hazardous chemicals present at 10,000 pounds or above the threshold planning quantity at the facility; 5) an annual quantitative report of the listed chemicals; and 6) an annual facility inventory report of toxic chemicals manufactured, stored or used, and the amounts released to the environment by the specific media.

A facility in Nebraska is required to submit a Tier II report if listed hazardous substances are present at any one time during the preceding calendar year at the facility in amounts either equal to or greater than amounts established by EPA. In 2016, a total of 2,887 Nebraska facilities reported Tier II information on regulated chemicals above EPA-established thresholds. This was consistent with previous years.

Facilities required to report information pursuant to the Community Right-to-Know Program are able to access, view, change and report their chemical information online. Approximately 98% of the facilities reported online in Nebraska in 2016. The information stored electronically is much more usable and enhances the ability of Local Emergency Planning Committees to access the data for use in their local emergency plans. The online reporting process reduces the burden on facilities by eliminating paper copies and mailing costs.

Additionally, the Community Right-To-Know Coordinator has been active in establishing relationships with Local Emergency Planning Committees by attending their meetings and making presentations at related conferences. In FY 16, the Community Right-to-Know Coordinator attended 15 local meetings, assisted with local emergency exercises and provided information regarding chemicals at facilities in their communities.

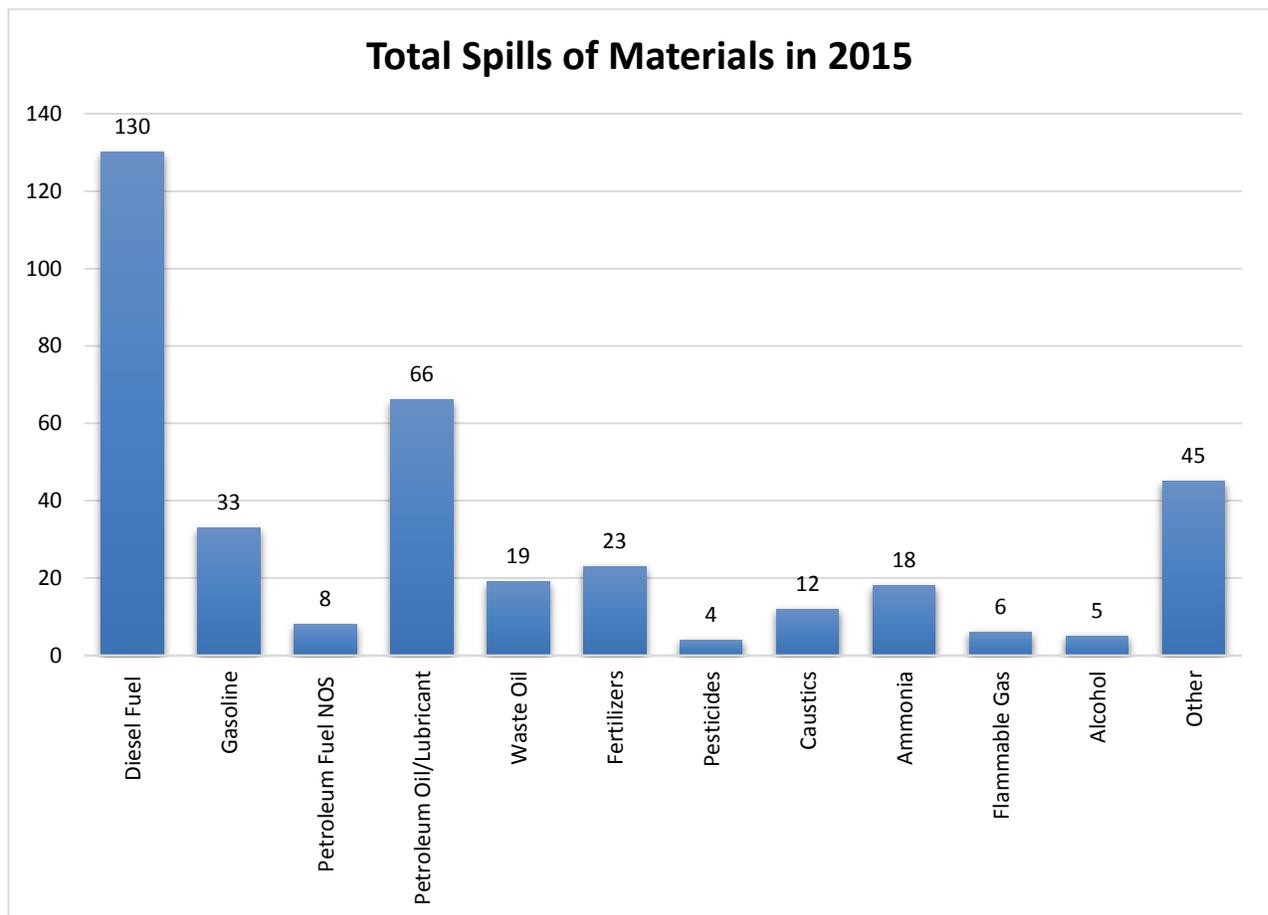
Finally, the Community Right-to-Know Coordinator also serves as the Agency's Quality Assurance Manager. These duties include ensuring that projects which collect environmental data have a signed Quality Assurance Project Plan (QAPP) there were nine QAPPs reviewed and approved. In addition every five-years states overall Quality Management Plans (QMP) are subject to comprehensive reviews and must be submitted to EPA for approval. The Community Right to Know Coordinator was responsible for coordinating the internal review and submission to EPA. The QMP was subsequently approved by EPA.

Emergency Response Program

Through the Emergency Response Program, NDEQ personnel provide technical and regulatory assistance to those responsible for spills, leaks, and accidents that pose a hazard to the environment or public health. Assistance is also provided to those at the local level who are the first on the scene at these releases; typically this is the local fire department.

The Emergency Response Program Coordinator is responsible for training, equipping and coordinating a group of personnel who, in addition to their responsibilities to other departmental programs, provide initial documentation, assistance and response to spills. These individuals have the responsibility of maintaining an emergency response system, which is on call 24 hours a day. The Emergency Response Program assists in arranging for the disposal of harmful and potentially hazardous materials. The Program represents the environmental interests of the state at the scene of a petroleum/chemical spill or other environmental emergency. All personnel are members of the Nebraska Hazardous Incident Team (NHIT) and coordinate closely with the local, state and federal agencies involved in emergency response situations. Over the past year the Emergency Response Program responded to 7 incidents and conducted 7 on-site visits to these incidents.

The Emergency Response Coordinator is responsible for training staff in the use of the system.



Homeland Security

NDEQ has been actively involved in the state's Homeland Security efforts which are directed by the Lieutenant Governor. Director Macy represents the Department on the Lieutenant Governor's Homeland Security Leadership Group. The Community Right to Know Coordinator has participated in a number of Local Emergency Planning Committee (LEPC) exercises which often have a Homeland Security component. These exercises help the LEPCs identify training needs and response issues in need of attention. These exercises typically involve incidents related to release of agricultural chemicals, pipeline releases, and responding to and mitigating spills into surface waters of the state.

CHAPTER 8:

Expenditure and Budget Summary

The following information summarizes department expenditures for fiscal year 2016 and outlines budget projections for fiscal year 2017. The figures in the expenditure summaries were derived from the state accounting system. The budget projections were prepared by the Department. Some limited flexibility exists to adjust these numbers to meet unforeseen needs.

Chart A shows actual FY16 expenditures for each federal grant, including the state match.

Chart B lists actual FY16 expenditures of programs funded by state general funds and/or cash funds. This chart lists expenditures by activity. Activity in this case is not considered a program activity, but is a category of expenditure. Activities listed in this chart are personal services, operating expenses, travel, capital outlay, contracting and distribution of aid.

Chart C outlines the proposed FY17 budget for each federal grant. Chart C also lists proposed match for each program for which a non-federal match is required. Additionally, match for the 319H grant is provided by in-kind services in the Groundwater Management Area program.

Chart D outlines proposed FY17 budgets for programs funded by state funds. This chart lists proposed expenditures by activity. As in Chart B, activity is not a program activity, but a category of expenditure. Activities listed are personnel services, operations, travel, capital outlay, contracting and distribution of aid.

Agency program activities are described in Chapter 2 and Chapters 4 through 7 of this report.

Chart A -- Actual Expenditure for Each Federal Grant for State Fiscal Year 2016

Grant / Program Title	Grant	Match	Total
Performance Partnership	5,234,193	1,316,196	6,550,389
Clean Water State Revolving Fund	7,080,870	1,185,562	8,266,432
Exchange Network	-	-	-
604 B Water Quality Management	79,190	-	79,190
319 H Non-Point Source	2,877,107	-	2,877,107
Drinking Water State Revolving Fund	10,714,571	600,859	11,315,430
Leaking Underground Storage Tanks	989,805	65,174	1,054,979
Clean Diesel	59,405	-	59,405
Section 106 Monitoring	232,260	-	232,260
Department of Defense	122,989	-	122,989
PM 2.5 Ambient Air Monitoring	277,266	-	277,266
Superfund UNL Mead	12,720	-	12,720
Superfund Core	160,660	24,166	184,826
Superfund Management Assistance	178,250	-	178,250
Superfund Site Assessment	201,795	-	201,795
Section 128 (a) State Response	578,961	-	578,961
Totals	\$ 28,800,043	\$ 3,191,957	\$ 31,992,000
Performance Partnership is made up of Water 106, Air 105, Groundwater, RCRA 3011, a part of nonpoint source program, Underground Injection Control, and Mineral Exploration			
A portion of the match for the State Revolving Fund Programs is provided by Revenue Bonds issued by NIFA			
An indirect rate of 56.22% was negotiated with EPA for FY16 and charged to programs against its direct payroll cost to cover agency administrative expenses			

Chart B - Actual Expenditure of State Funds for State Programs for Fiscal Year 2016 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Total	Distribution of Aid	Total
Integrated Solid Waste Management	004	C	1,263,611	541,694	41,180	2,885		1,849,370		1,849,370
Ag - Livestock	016	G/C	1,408,610	66,143	56,967	4,360		1,536,081		1,536,081
Air Construction Permits	020	C	44,714	21,872	20			66,606		66,606
Superfund State Cost Share	023	G/C	10,224	50,860	277			61,362	107,079	168,441
Litter Reduction	024	C	114,940	205,051	50			320,040	1,635,601	1,955,641
Mineral Exploration	029	C	80,814	37,574	14,868	1,029		134,284		134,284
Private Onsite Wastewater Cert & Registration	030	C	206,227	112,041	10,377	1		328,646		328,646
Environmental Official Training	031	C	-	974	2,222			3,196		3,196
Emission Inventory - Title V	033	C	1,934,891	914,904	27,363	7,924		2,885,082		2,885,082
Chemigation	034	C	1,066	23,794				24,859		24,859
Groundwater Management Areas	035	G	23,979	2,988				26,967		26,967
Remedial Action Plan Monitoring Act	036	C	123,851	46,933	1,029			171,814		171,814
Private Onsite Wastewater Permit & Approval	037	C	30,580	10,925	63			41,568		41,568
Operator Certification	040	C	55,234	37,055	3,020			95,309		95,309
Community Right to Know	041	G	93,572	2,350	2,606			98,528		98,528
Petroleum Release Remedial Action Act	051	C	919,821	5,772,984	8,594	92,040		6,793,440	5,012,975	11,806,415
Emergency Response	057	G/C	241,175	99,793	3,779			344,747		344,747
Engineering Reviews	061	G	197,927	4,382	385			202,694		202,694
Stormwater Grants	067	G	5,239	130	53			5,422	1,824,995	1,830,417
Waste Reduction & Recycling	091	C	219,117	118,339	3,926	3		341,384	4,278,783	4,620,167
Superfund Special Projects	095	G	71	26				97		97
Agency Organizational Dues	099	G						-		-
Totals			\$ 6,975,663	\$ 8,070,813	\$ 176,779	\$ 108,242	\$ -	\$ 15,331,496	\$ 12,859,433	\$ 28,190,928

FUND TYPE LEGEND

G - Program Expends General Funds

C - Program Expends Cash Funds

G/C - Program Expends Both General and Cash Funds

An indirect rate of 56.22% was negotiated with EPA for FY16 and charged to programs against its direct payroll cost to cover agency administrative expenses.

Chart C - Proposed Budget for Each Federal Grant Program for State Fiscal Year 2017

Grant / Program Title	Grant	Match	Total
Performance Partnership	4,699,070	1,390,963	6,090,033
Clean Water State Revolving Fund	7,144,000	1,428,800	8,572,800
604 B Water Quality Management	100,000	-	100,000
319 H Non-Point Source	2,408,000	1,608,800	4,016,800
Drinking Water State Revolving Fund	8,845,000	1,769,000	10,614,000
Leaking Underground Storage Tanks	812,000	90,222	902,222
Clean Diesel (DERA & Diesel Emissions)	319,424	-	319,424
Section 106 Monitoring	399,000	-	399,000
PM 2.5 Ambient Air Monitoring	803,124	-	803,124
Superfund UNL Mead	53,973	-	53,973
Superfund Core	435,875	46,070	1,796,570
Superfund Management Assistance	675,693	-	675,693
Superfund Site Assessment	638,933	-	638,933
Section 128 (a) State Response	1,019,566	-	1,019,566
Totals	\$ 28,353,658	\$ 6,333,855	\$ 36,002,138

Performance Partnership is made up of Water 106, Air 105, Groundwater, RCRA 3011, a part of nonpoint source program, Underground Injection Control, and Mineral Exploration

A portion of the match for the State Revolving Fund Programs is provided by Revenue Bonds issued by NIFA

An indirect rate of 53.65% was negotiated with EPA for FY17 and charged to programs against it's direct payroll cost to cover agency administrative expenses.

Chart D - Proposed Budget of State Funds for State Programs for Fiscal Year 2017 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Total	Distribution of Aid	Total
Integrated Solid Waste Management	004	C	1,354,682	525,767	36,800			1,917,249		1,917,249
Ag - Livestock	016	G/C	1,631,358	61,339	54,500			1,747,197		1,747,197
Air Construction Permits	020	C	78,333	33,158				111,491		111,491
Superfund State Cost Share	023	G/C	59,601	675,000				734,601	1,561,801	2,296,402
Litter Reduction	024	C	151,445	189,218				340,663	2,000,000	2,340,663
Mineral Exploration	029	C	96,518	38,541	13,850			148,909		148,909
Private Onsite Wastewater Cert & Registration	030	C	256,947	190,537	9,700			457,184		457,184
Emission Inventory - Title V	033	C	2,079,658	832,143	25,500			2,937,301		2,937,301
Chemigation	034	C	21,603	31,050				52,653		52,653
Groundwater Management Areas	035	G	32,354	470				32,824		32,824
Remedial Action Plan Monitoring Act	036	C	126,494	43,904	1,000			171,398		171,398
Private Onsite Wastewater Permit & Approval	037	C	30,596	10,683				41,279		41,279
Operator Certification	040	C	99,193	71,046	2,425			172,664		172,664
Community Right to Know	041	G	103,940	1,900	2,500			108,340		108,340
Petroleum Release Remedial Action Act	051	C	989,807	6,885,452	8,200	85,000		7,968,459	8,775,000	16,743,459
Engineering Reviews	061	G	178,497	3,794	370			182,661		182,661
Stormwater Grants	067	G	6,355	104	100			6,559	1,824,993	1,831,552
Waste Reduction & Recycling	091	C	203,206	86,760	3,490			293,456	4,000,000	4,293,456
Agency Organizational Dues	099	G		12,000				12,000		12,000
Totals			\$ 7,500,587	\$ 9,680,866	\$ 158,435	\$ 85,000	\$ -	\$ 17,424,888	\$ 18,161,794	\$ 35,586,682

FUND TYPE LEGEND

- G - Program Expends General Funds
- C - Program Expends Cash Funds
- G/C - Program Expends Both General and Cash Funds

An indirect rate of 53.65% was negotiated with EPA for FY17 and charged to programs against it's direct payroll cost to cover agency administrative expenses.

CHAPTER 9:

Distribution of Aid

The Department has a number of programs that distribute aid for specific activities. These range from funding for roadside cleanup to providing loans through the State Revolving Fund Loan Programs for construction of wastewater treatment facilities and drinking water systems.

WASTE MANAGEMENT AID PROGRAMS

Following is a summary of funds provided in FY2016 through the Waste Grants programs managed in the Waste Planning and Aid Unit.

A. Litter Reduction and Recycling

The Litter Reduction and Recycling Grant Program provides funds to reduce litter, provide education and promote recycling in Nebraska. Funding for the program is an annual fee on manufacturers, wholesalers and retailers who have significant sales in categories of products that would generally be considered to produce litter.

In FY2016, 54 Litter Reduction and Recycling grants were awarded, totaling \$1,821,055. The grants were awarded in three categories: Public Education, \$819,597; Cleanup, \$108,483; and Recycling, \$892,975. These grants were awarded to both public and private entities.

B. Waste Reduction and Recycling

The Waste Reduction and Recycling Incentive Grants Program provides grants for various solid waste management activities. Revenues to the fund are provided by proceeds from various fees, including a one-dollar fee on each new tire sold in the state, and a retail business fee on tangible personal property sold in the state. In addition, 50% of a fee collected on the disposal of solid waste going to landfills goes to this fund.

In FY2016, 165 projects totaling \$5,536,014 were funded from the Waste Reduction and Recycling Incentive Grants Program.

C. Illegal Dumpsite Cleanup Program

The Illegal Dumpsite Cleanup Program, established in 1997, provides funding for political subdivisions to clean up solid waste disposed of along public roadways or ditches. Potential funding is limited to five percent of the total revenue from the disposal fee collected in the preceding fiscal year. In FY2016, the program provided \$162,535 to six recipients.

D. Landfill Disposal Fee Rebate Program

The Landfill Disposal Fee Rebate Program was created as an incentive to political subdivisions to support and encourage the purchasing of products, materials, or supplies that are manufactured or produced from recycled material. Funding for the program is from the Waste Reduction and Recycling Incentive Fund. In FY2016, the program provided \$94,409 to 11 recipients.

Any municipality or county may apply for a rebate if they have a written purchasing policy in effect requiring a preference for purchasing products, materials or supplies which are manufactured or produced from recycled material. If the policy is approved by NDEQ, the applicant may receive a ten cent rebate from the \$1.25 per ton disposal fee. Rebates are provided no more than quarterly and no less than annually.

Additional information about these programs can be found in the Planning and Aid portion of Chapter 5.

WATER QUALITY AID PROGRAMS

A. Petroleum Remediation

The Petroleum Remediation program provides aid through the Petroleum Release Remedial Action Fund to assist in paying the cost of cleanup of sites where petroleum has leaked from tanks, generally service stations. Funding to this program is primarily provided by a fee on petroleum sold in Nebraska. Over \$208 million has been disbursed since the program began. The program provided \$4.7 million to 232 sites for investigation and cleanup in FY2016.

Additional information about this program can be found in the Petroleum Remediation portion of Chapter 6.

B. State Revolving Loan Fund Program

I. Clean Water (Wastewater) State Revolving Loan Fund Program -- Grant and loan programs administered by DEQ related to wastewater facilities, which are funded through the Clean Water State Revolving Fund program, include:

- The **Clean Water State Revolving Loan Fund** provides low interest loans and loan forgiveness to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems. The sources of funding for this program include federal grants and funds from the Nebraska Investment Financial Authority (NIFA) through bond issuance. In FY2016, the CWSRF funded projects totaling \$35,788,260 in loans and \$762,350 in principal forgiveness and grant funds.
- **Clean Water Construction Administration Small Community Matching Grants** provide matching grants to eligible communities with populations of 10,000 or less. In FY2016, \$341,010 was allocated for small community grants.
- **Planning Grants** totaling \$100,000 were awarded to five small (under 10,000) communities in FY2016. These communities were listed on the Project Priority List and used the grants to identify wastewater treatment facility project needs.

Additional information about these programs can be found in the State Revolving Loan Fund Programs portion of Chapter 6.

II. Drinking Water State Revolving Fund Program -- The Drinking Water State Revolving Fund provides low-interest loans and loan forgiveness to owners of public water systems. In FY2016, the program provided financial assistance to public water system projects totaling \$26,181,645, of which disadvantaged communities received \$4,095,436 in forgiveness funding.

Additional information about these programs can be found in the State Revolving Loan Programs portion of Chapter 6.

C. Nonpoint Source Management

The Nonpoint Source Management program provides pass-through funding for the prevention and abatement of nonpoint source water pollution and the restoration of watershed resources under Section 319 of the federal Clean Water Act. This funding is provided to units of government, educational institutions, and non-profit organizations, for projects that facilitate implementation of the state Nonpoint Source Management Plan.

In FFY 2016, the Nonpoint Source Management Program provided and managed 30 Section 319 grants to local sponsors of eligible projects in the two categories: 1) Large Competitive Projects (generally under \$300,000) and 2) Small Project Assistance (under \$15,000). Of the 30 grants managed, 27 were large multi-year projects, with total funds of all projects equaling \$3,897,185. Three small projects were managed with total funds equaling \$35,100.

Additional information about these programs can be found in the Water Quality Planning portion of Chapter 6.

D. Storm Water Grants

In 2006, the Nebraska Legislature passed LB1226, which established the Storm Water Management Plan Program. This grant program provides funding to cities and counties to implement their local Storm Water Management Plans (SWMPs). In FY2016, nearly \$1.825 million was awarded to 25 communities for implementation of their Storm Water Management Plans. The grant recipients must provide a 20% cash match for any funds received and submit annual reports for the duration of the project.

Additional information about this program can be found on page 83.

CHAPTER 10:

Staffing

This chapter consists of an assessment of NDEQ's ability to hire and retain qualified staff with a chart showing turnover by job classification for the last ten years.

Because NDEQ deals with a wide array of complex environmental issues, it is essential to our operations that technically competent people are hired for vacant positions. Without highly trained and experienced staff, NDEQ would not be able to effectively carry out its mission of protecting Nebraska's environment.

Recruiting qualified and experienced employees for positions that require extensive education and experience remains a focus. NDEQ feels very fortunate to have recruited excellent staff in 2015/2016.

Staff retention continues to be an important goal for NDEQ. Staff turnover impacts continuity in NDEQ's programs and activities, and results in additional costs for recruitment and training of replacement staff members. NDEQ strives to foster and maintain an employee-friendly workplace by offering transfer and promotional opportunities for qualified internal applicants. In addition, training and tuition assistance are provided to interested staff.

NDEQ monitors diversity to encourage the receipt of applications from qualified members of protected groups by seeking to recruit members of protected groups.

The chart on the following page shows hiring activity on specific job categories:

Employees Assuming Agency Positions

These figures include new hires, promotions, transfers and classification upgrades for a one-year period. Figures for 2016 are from October 1, 2015 through September 30, 2016.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Director/Deputy Director/Assistant Director/Division Administrator	0	0	0	0	0	0	0	0	1	5
Section Supervisor, Records Manager, Budget Officer	2	0	4	0	0	0	1	5	0	4
Unit Supervisor	2	0	5	2	0	2	1	1	2	0
Human Resources	0	2	0	1	0	0	0	0	0	0
Training Coordinator									1	0
Federal Aid Administrator, Financial Assurance Coordinator, Accountant	0	0	0	2	1	1	0	0	0	1
Clerical/Accounting Clerk	6	4	9	3	5	0	2	4	4	4
Information Technology/Public Information/Research Analyst	3	2	3	0	1	0	0	0	0	0
Attorney I, II & III	0	0	0	1	0	0	0	2	0	2
Environmental Engineer	5	2	4	0	3	2	2	7	2	4
Compliance Specialist	0	1	0	0	0	0	1	0	0	1
Programs Specialist I & II	12	13	17	8	9	11	10	7	11	19
Geologist, Groundwater I & II	0	4	3	2	0	2	4	2	3	1
Environmental Assistance Coordinator	0	0	0	0	1	1	1	0	0	0
TOTALS	30	29	45	20	20	19	22	28	24	41

CHAPTER 11:

Financial Assurance Requirements

Section 81-1505(21) provides the statutory authority for the Department to develop, and the Council to adopt as regulations, requirements for all applicants to establish proof of financial responsibility. The requirements pertain to all new or renewal permit applicants regulated under the Nebraska Environmental Protection Act, the Integrated Solid Waste Management Act, and the Livestock Waste Management Act, unless a class of permittees is exempted by the Council. The purpose of financial responsibility is for an applicant to provide funds to be used in the event of abandonment, default or other inability of the permittee to comply with terms or conditions of its permit or license. State statutes also identify types of funding mechanisms that applicants can use to meet the requirements.

Following is a table which provides a comprehensive list of existing financial assurance requirements for each permittee. Financial assurance amounts are listed in two categories: the first is the obligated amount, which lists the total amount of financial assurance which must be provided by the time of closure of the facility. Second is the current amount demonstrated, which lists the amount of financial assurance which is currently accrued towards the obligated amount. The table lists the facility location, permit type, initial date financial assurance provided, method or type of financial assurance provided and the guarantor for each permittee.

NDEQ FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
Municipal Solid Waste Disposal Areas (MSWDA), Sanitary Landfills (LF)							
Alliance Landfill	Alliance	MSWDA	03/17/94	\$ 3,495,158	\$ 1,775,372	Enterprise Fund	City of Alliance
Beatrice Landfill	Beatrice	Sanitary LF	07/12/00	\$ 146,313	\$ 146,313	Financial Test	City of Beatrice
Beatrice Area SW Agency	Beatrice	MSWDA	07/12/00	\$ 4,103,704	\$ 4,103,704	Financial Test	City of Beatrice
Butler County Landfill	David City	MSWDA	10/03/08	\$ 11,120,889	\$ 4,255,907	Trust Fund	US Bank
Douglas County Landfill	Bennington	MSWDA	03/28/00	\$ 12,679,150	\$ 12,679,150	Surety Bond	Evergreen Ntl. Indemnity Co.
G & P Dev Landfill	Milford	MSWDA	10/03/08	\$ 9,718,136	\$ 2,807,959	Trust Fund	US Bank
Gering Landfill	Gering	MSWDA	02/13/96	\$ 2,113,277	\$ 1,205,882	Enterprise Fund	City of Gering
L.P. Gill Landfill	Jackson	MSWDA	04/09/96	\$ 6,026,364	\$ 3,118,270	Trust Fund	Premier Trust
Grand Island Landfill	Grand Is.	MSWDA	03/31/96	\$ 9,997,238	\$ 9,997,238	Financial Test	City of Grand Island
Hastings Area Landfill	Hastings	MSWDA	03/18/13	\$ 6,093,593	\$ 3,216,319	Enterprise Fund	City of Hastings
Hastings Landfill	Hastings	Sanitary LF	10/01/97	\$ 154,996	\$ 29,481	Faith & Credit	City of Hastings
Holdrege Landfill	Holdrege	MSWDA	07/29/96	\$ 2,964,535	\$ 1,926,028	Enterprise Fund	City of Holdrege
J-Bar-J Landfill	Ogallala	MSWDA	03/28/00	\$ 4,534,523	\$ 4,534,523	Performance Bond	Evergreen Ntl. Indemnity Co.
Kearney Landfill	Kearney	MSWDA	03/31/94	\$ 6,957,198	\$ 3,186,998	Trust Fund	Union Bank & Trust
Kimball Landfill	Kimball	MSWDA	05/10/96	\$ 1,853,025	\$ 1,501,356	Enterprise Fund	City of Kimball
Lexington Landfill	Lexington	Sanitary LF	07/25/96	\$ 355,810	\$ 299,877	Faith & Credit	City of Lexington
Lexington Area Agency	Lexington	MSWDA	01/19/97	\$ 2,741,805	\$ 2,242,996	Enterprise Fund	Lexington Area SW Agency
Lincoln Bluff Road Landfill	Lincoln	MSWDA	04/01/96	\$ 22,077,484	\$ 22,077,484	Financial Test	City of Lincoln
Loup Central Landfill	Elba	MSWDA	04/09/96	\$ 2,356,663	\$ 892,658	Trust Fund	Citizens Bank & Tr St. Paul
McCook Landfill	McCook	Sanitary LF	03/04/96	\$ 511,498	\$ 78,692	Faith & Credit	City of McCook
Minden Disposal Area	Minden	Sanitary LF	11/18/96	\$ 35,196	\$ 85,218	Faith & Credit	City of Minden
NE Ecology Landfill	Geneva	MSWDA	10/03/08	\$ 2,357,347	\$ 852,803	Trust Fund	US Bank
NNSWC Landfill	Clarkson	MSWDA	04/09/96	\$ 19,709,596	\$ 6,387,688	Enterprise Fund	NNSWC
Pheasant Point Landfill	Bennington	MSWDA	08/01/03	\$ 24,985,935	\$ 24,985,935	Surety Bond	Evergreen Ntl. Indemnity Co.
Sarpy County Landfill	Papillion	MSWDA	03/31/96	\$ 7,257,362	\$ 7,277,362	Enterprise Fund	Sarpy County
Sidney Landfill	Sidney	MSWDA	02/11/97	\$ 2,371,056	\$ 955,581	Enterprise Fund	City of Sidney
SWANN Landfill	Chadron	MSWDA	09/25/97	\$ 1,495,624	\$ 721,191	Enterprise Fund	SWANN
Valentine Landfill	Valentine	MSWDA	04/09/96	\$ 1,771,333	\$ 612,164	Enterprise Fund	City of Valentine
York Landfill	York	Sanitary LF	05/14/96	\$ 73,689	\$ 11,342	Faith & Credit	City of York
York Area SW Landfill	York	MSWDA	05/14/96	\$ 5,484,700	\$ 1,648,235	Enterprise Fund	City of York
*MSWDAs are landfills that are operating under current solid waste management regulations.							
**Sanitary LFs are closed facilities that have post-closure monitoring and maintenance.							
Construction/Demolition Landfills							
Abe's Trash Service C & D	Blair	Const./Demol.	03/30/98	\$ 264,209	\$ 264,209	Escrow Account	Bank of Bennington
Alliance C & D Landfill	Alliance	Const./Demol.	12/02/99	\$ 152,838	\$ 61,280	Enterprise Fund	City of Alliance
Anderson Excavating C & D	Omaha	Const./Demol.	10/19/98	\$ 928,926	\$ 928,926	Surety Bond	Employers Mutual Cas. Co.
Arnold C & D Landfill	Arnold	Const./Demol.	07/24/00	\$ 46,956	\$ 40,139	Enterprise Fund	Village of Arnold

NDEQ FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
OPPD Fort Calhoun (IW)	Ft. Calhoun	Indus. Waste	04/04/95	\$ 162,269	\$ 162,269	Financial Test	OPPD
Platte Generation	Grand Island	FFCA	03/18/14	\$ 357,466	\$ 357,466	Financial Test	City of Grand Island
Waste Management of NE	Bennington	Indus. Waste	04/01/02	\$ 1,382,450	\$ 1,382,450	Surety Bond	Evergreen Ntl. Indemnity Co.
Transfer Stations, Material Recovery Facilities, Compost Sites							
AltEn LLC	Mead	Compost	04/01/07	\$ 188,466	\$ 188,508	Escrow Account	American Ntl Bank
Bud's Sanitary Service	Newman Gr.	Transfer Station	07/08/94	\$ 3,937	\$ 3,937	Letter of Credit	First Natl. Bank, NG
Custer Transfer Station	Broken Bow	Transfer Station	12/23/08	\$ 10,693	\$ 10,693	Letter of Credit	Great Western Bank
Doernemann Const. Co.	Clarkson	Compost	12/15/99	\$ 101,013	\$ 101,013	Letter of Credit	Clarkson Bank
Edgetown Properties LLC	Madison	Transfer Station	06/27/12	\$ 7,500	\$ 7,500	Escrow Account	Frontier Bank
Fremont CRD, Inc.	Fremont	Transfer Station	07/02/03	\$ 12,627	\$ 12,627	Surety Bond	Capitol Indemnity Corp
King Transfer Station	Walthill	Transfer Station	04/02/96	\$ 1,182	\$ 1,187	Escrow Account	First Natl. Bank, Walthill
Prairieland Dairy LLC	Firth	Compost	08/01/15	\$ 313,830	\$ 313,830	Letter of Credit	First State Bank Nebraska
Recycling Enterprises of NE, Inc.	Lincoln	Mat. Recovery	08/30/12	\$ 60,390	\$ 60,390	Letter of Credit	CityBank & Trust Co.
River City Recycling	Omaha	Mat. Recovery	01/01/01	\$ 55,920	\$ 55,920	Escrow Account	US Bank Ntl Assoc
Sarpy County	Papillion	Transfer Station	04/17/12	\$ 98,643	\$ 98,643	Surety Bond	Travelers Surety Co. of Amer.
Seneca Sanitation	Dubois	Transfer Station	02/01/04	\$ 4,224	\$ 4,224	Letter of Credit	First Natl. Bank, Centralia
Stericycle	Lincoln	Processing Fac	07/01/12	\$ 52,457	\$ 53,000	Surety Bond	Westchester Fire Ins. Co.
Waste Connections of NE	Bridgeport	Transfer Station	08/15/03	\$ 3,956	\$ 3,956	Surety Bond	Evergreen Ntl. Indemnity Co.
Waste Connections of NE	Gering	Transfer Station	08/15/03	\$ 10,076	\$ 14,740	Surety Bond	Evergreen Ntl. Indemnity Co.
Waste Connections of NE	Ord	Transfer Station	07/02/03	\$ 8,387	\$ 8,387	Surety Bond	Capitol Indemnity Corp
Waste Connections of NE	Wahoo	Transfer Station	07/02/03	\$ 7,190	\$ 7,190	Surety Bond	Platte River Ins Co.
Waste Connections of NE	Central City	Transfer Station	05/30/13	\$ 9,223	\$ 9,223	Surety Bond	Platte River Ins Co.
RCRA Closure and RCRA Post-Closure (PC)							
Loveland Products	Fairbury	RCRA PC	12/10/15	\$ 630,697	\$ 630,697	Letter of Credit	Bank of Nova Scotia
Behlen Manufacturing Co.	Columbus	RCRA PC	02/29/12	\$ 54,810	\$ 54,810	Financial Test	Behlen Mfg
Bosch Security Systems	Lincoln	RCRA PC	06/02/09	\$ 10,344	\$ 10,344	Letter of Credit	Bank of Montreal
Clean Harbors Technology	Kimball	RCRA Closure	09/16/13	\$ 25,544,286	\$ 25,544,286	Insurance Policy	Indian Harbors Insurance Co.
Douglas County Landfill	Omaha	RCRA PC	03/08/85	\$ 234,640	\$ 265,116	Trust Fund	First Natl Bank of Omaha
Eaton Corporation	Omaha	RCRA PC	06/08/09	\$ 4,463,158	\$ 4,463,158	Letter of Credit	JP Morgan/Chase Bank
Safety Kleen	Grand Island	RCRA Closure	10/15/01	\$ 142,741	\$ 142,741	Insurance Policy	Indian Harbors Insurance Co.
Safety Kleen	Omaha	RCRA Closure	10/15/01	\$ 378,187	\$ 378,187	Insurance Policy	Indian Harbors Insurance Co.
Tenneco Automotive Inc.	Cozad	RCRA PC	09/17/97	\$ 51,440	\$ 51,440	Letter of Credit	Canadian Imperial Bank
Van Diest Supply Liquid Plant	McCook	RCRA PC	02/16/06	\$ 2,627,776	\$ 2,627,776	Letter of Credit	1st State Bank Webster Cty IA
Underground Injection Control (UIC)							
Crow Butte Resources, Inc.	Crawford	UIC		\$ 45,660,556	\$ 45,660,556	Letter of Credit	Royal Bank of Canada

NDEQ FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
			Waste Tire Sites				
ABC Tire LLC	Kansas C, KS	Waste Tire	06/24/13	\$ 10,000	\$ 10,000	Surety Bond	Nationwide Mutual Ins.
B-Rose Transportation	Alvo	Waste Tire	04/16/15	\$ 5,000	\$ 5,000	Surety Bond	Merchants Bonding Co.
Butler County Landfill	David City	Waste Tire	05/16/97	\$ 50,000	\$ 50,000	Surety Bond	Travelers Casualty & Surety
Champlin Tire Recycling Inc	Concordia KS	Waste Tire	10/04/96	\$ 10,000	\$ 10,000	Letter of Credit	United Bank & Trust
David's Tire	Nevada, MO	Waste Tire	02/05/16	\$ 5,000	\$ 5,000	Surety Bond	U.S. Fire Ins. Co.
D & B Enterprise LLC	Correctville, IA	Waste Tire	11/17/08	\$ 10,000	\$ 10,000	Surety Bond	Great American Ins.Co.
Don's Used Tires	Lincoln	Waste Tire	03/13/03	\$ 5,000	\$ 5,000	Surety Bond	Old Republic Surety Co.
EnTire Recycling Inc	Brock	Waste Tire	04/18/13	\$ 10,000	\$ 10,000	Letter of Credit	Great Western Bank
Gill Hauling Inc.	Jackson	Waste Tire	02/04/09	\$ 10,000	\$ 10,000	Letter of Credit	Dakota County State Bank
Hackbart Brothers, Inc	Seward	Waste Tire	08/03/15	\$ 10,000	\$ 10,000	Letter of Credit	Jones Natl. Bank & Trust
Hoke Transport LLC	Gering	Waste Tire	04/04/12	\$ 5,000	\$ 5,000	Surety Bond	Old Republic Surety Co.
Intrawest LLC	Fountain CO	Waste Tire	09/15/15	\$ 5,000	\$ 5,000	Surety Bond	U.S. Specialty Ins. Co.
J & M Steel	Hastings	Waste Tire	01/15/15	\$ 5,000	\$ 5,000	Letter of Credit	Five Points Bank
Kenny Frazier	Edmond OK	Waste Tire	05/26/04	\$ 5,000	\$ 5,000	Escrow Account	Bank of America, Inc.
LAL Enterprise, LLC	Alvo	Waste Tire	04/16/15	\$ 5,000	\$ 5,000	Surety Bond	Merchants Bonding Co.
Leo Porter	Oshkosh	Waste Tire	02/21/08	\$ 5,000	\$ 5,000	Escrow Account	Nebraska State Bank
Liberty Tire Services of Ohio	Savage, MN	Waste Tire	03/09/09	\$ 10,000	\$ 10,000	Surety Bond	Evergreen Ntl. Indemnity Co.
New Horizons Enterprises LLC	Lincoln	Waste Tire	05/11/12	\$ 5,000	\$ 5,000	Surety Bond	Granite Re, Inc.
Omaha Casing Co. Inc	Omaha	Waste Tire	12/05/14	\$ 5,000	\$ 5,000	Letter of Credit	Security Natl. Bank
Resource Management Co	Brownell, KS	Waste Tire	01/17/06	\$ 10,000	\$ 10,000	Letter of Credit	First State Bank, Ness Cy,KS
River City Recycling	Omaha	Waste Tire	04/22/16	\$ 43,750	\$ 43,750	Letter of Credit	Access Bank
Shockley Trucking	Octavia	Waste Tire	02/24/16	\$ 10,000	\$ 10,000	Surety Bond	Universal Surety Co.
Tire Cutters	Centralia KS	Waste Tire	05/13/06	\$ 5,000	\$ 5,000	Letter of Credit	1st Natl. Bank, Centralia, KS
Tire Town, Inc.	Leavenworth,K	Waste Tire	06/11/15	\$ 10,000	\$ 10,000	Letter of Credit	Bank of the Prairie
Uribe Scrap Tires, LLC	Lincoln	Waste Tire	01/06/14	\$ 5,000	\$ 5,000	Surety Bond	Ohio Casualty Ins. Co.