



# Nebraska Department of Environmental Quality

## Annual Report to the Legislature 2006

Submitted December 1, 2006

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- News Releases
- Calendar of Events
- Job Listings
- Priority Issues
- Reports
- Rules and Regulations
- Fact Sheets and other publications
- Program information
- Public Notices
- Enforcement Resolutions

# CHAPTER 1:

## Agency Overview

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The Nebraska Department of Environmental Quality was created pursuant to passage of the Nebraska Environmental Protection Act in 1971. Although the Department has grown and been given additional responsibilities over the years, its ongoing mission has remained the same — the protection of Nebraska’s air, land and water resources. Presently, the Agency is authorized a staffing level of 218 full-time employees.

The Department has a total annual budget for FY07 of approximately \$84.9 million. Of that amount, \$50.1 million is redistributed to other agencies, organizations and individuals in the form of aid (grants and loans). On the chart below, the columns listed as aid represent the amount of our budget that is redistributed elsewhere as grants and loans. The operations columns represent the amounts used for the operation of the agency. However, the operations categories also include contracts where money is distributed to others, such as when the agency assigns a private contractor to investigate and clean up a petroleum remediation site.

This funding is derived from several sources. A major source of funding is the federal government. The state also contributes significant funding for Department activities, and certain programs are funded partially or totally by fees. A breakdown of funding by fund type is shown on the following chart:

| <b>Funding Type</b>            | <b>Operations:<br/>\$ Amount</b> | <b>Percent of<br/>Operations<br/>Budget</b> | <b>Aid:<br/>\$ Amount</b> | <b>Percent of<br/>Aid Budget</b> |
|--------------------------------|----------------------------------|---|---------------------------|----------------------------------|
| <b>Federal Funds</b>           | \$15.2 million                   | 43.7%                                       | \$20.4 million            | 40.7%                            |
| <b>State General<br/>Funds</b> | \$3.5 million                    | 10.0%                                       | \$2.9 million             | 5.8%                             |
| <b>Cash Funds<sup>1</sup></b>  | \$16.1 million                   | 46.3%                                       | \$16.8 million            | 33.5%                            |
| <b>Trust Funds<sup>2</sup></b> |                                  |   | \$10.0 million            | 20.0%                            |
| <b>Total</b>                   | \$34.8 million                   |   | \$50.1 million            |                                  |

<sup>1</sup>Cash Funds refer to fees collected by the department.

<sup>2</sup>Trust Funds refer to loan repayments the department receives.

Several chapters of this report give the reader a more in-depth look at Department responsibilities. Other chapters address financial issues, staffing issues, aid programs, and financial responsibility requirements. Additionally, Chapter 3 lists actions of the Environmental Quality Council during FY06.

This chapter provides: 1) a brief description of agency goals and related activities; 2) agency activities and significant issues for fiscal year 2006; 3) significant legislation of 2006 and 4) a table that identifies initiatives over the past ten years that have impacted Agency resources.

## I. Agency Goals and Related Activities

In recent years, NDEQ Administration has established a list of agency goals. Staff from all programs were asked to identify goals consistent with the agency goals. Through a series of staff meetings, goals were discussed and specific program goals and activities to be reached and reported were identified. These goals meetings have been conducted periodically since the goals were established, to evaluate our progress and develop strategies for the future. These efforts provide greater accountability regarding work that is being accomplished and help programs and management monitor whether we are achieving the identified goals.

The main goals established by the Agency are:

- 1) **Effective work force.** The agency needs to structure and train its employees to be as effective as possible to offset declining resources.
- 2) **Timely permitting process.** Permit review and issuance needs to be streamlined and simplified to meet the needs of both the agency (effective work force) and those in need of a permit.
- 3) **Balanced enforcement.** Enforcement means compliance with the law and a balanced approach between compliance assistance and traditional enforcement tools needs to be reached.
- 4) **Simplify regulations.** Persons and entities affected or protected by our regulations need to be able to understand the requirements with as little difficulty as possible.
- 5) **Community presence and relations.** NDEQ needs to be present in the community that it serves -- Nebraska. The agency also needs to open communications and relationships with citizens, those we regulate, and other governmental entities.
- 6) **“Back to the Basics.”** We must excel at the fundamental things that the Legislature intends for us to do -- issue permits, inspect, assure compliance, and require remediation where necessary.
- 7) **Assistance.** We need to assist those that we regulate so they can meet or exceed minimum standards. We must make such concepts as pollution prevention and compliance assistance a natural way of doing our job.
- 8) **Measure Environmental Quality.** We need to collect information that enables us to do our job and to measure Nebraska’s environmental quality. Information collected by NDEQ must measure any changes in the quality of Nebraska’s environment over time and provide the information we need to make sound regulatory decisions.
- 9) **Meaningful Reporting.** NDEQ has a responsibility to the citizens of Nebraska to report our findings in an understandable and useful way.
- 10) **Assess Needs.** Meaningful information about the environment should be used by NDEQ to assess the needs of the citizens and environment of the State. That information, when shared with the public, will provide input opportunities on priority issues.

Through activity tracking and followup meetings with program staff, the agency continually evaluates whether goals are being achieved, and whether they need to be modified.

## II. Significant Activities/Issues, Fiscal Year 2006

Among the significant issues that have occurred in 2006 are:

**Biofuel facility permitting** – Nebraska's first ethanol plant began production in Hastings in January, 1985. Since that time, the ethanol industry in the state has grown dramatically. There are currently 12 ethanol plants operating in Nebraska, collectively producing 695 million gallons of ethanol each year. In addition, as of October 16, 2006, there have been 14 new permits to construct ethanol plants, with the capacity to produce 1,018 million gallons a year; one expansion permit issued to an existing ethanol plant, which would increase the plant's capacity by 140 million gallons a year; nine applications for new ethanol plants, for a total of 1,127 million gallons a year; six expansion permit applications at existing ethanol plants for a total of 664 million gallons a year; and 23 additional planned facilities that have not submitted applications to the agency yet. In addition to ethanol plants, there has been increased activity in the development of biodiesel facilities, primarily those associated with soybeans or animal fats. While the extent of growth of this emerging sector is still uncertain, it is expected to be significant.

**Toxic algae** – Although toxic blue-green algae has been an ongoing potential threat, it became an issue of greater concern in Nebraska in 2004, after NDEQ received reports of a dog dying after drinking water containing algae from a sandpit lake south of Omaha. NDEQ purchased laboratory equipment to determine the levels of the toxin Microcystin in potentially affected lakes, and, in conjunction with Nebraska Health and Human Services System and the Nebraska Game and Parks Commission and developed a sampling protocol and Health Alert system to notify the public if there were potential hazards. Over the 2004 recreational season, which extended from May 1 through September 30, Health Alerts were issued at 24 lakes in Nebraska. Weekly sampling continued in 2005 and 2006, and further analysis is being conducted to learn more about toxic algae trends and methods of preventing it from occurring in the future. During the recreational season of 2005, Health Alerts were issued for 12 lakes. The weekly sampling continued at over 30 lakes in 2006, and health alerts were issued at six lakes.

**Web redesign planning** – Plans are under way to significantly redesign the department's web page ([www.deq.state.ne.us](http://www.deq.state.ne.us)) to make it more customer-oriented and interactive. Over 40 staff members have participated in initial meetings to review areas that can be improved. The end result will be a web page that is better organized, easier to navigate, with more interactive features such as editable forms, with a variety of new features and information. It is expected that this new web site will be available to the public near the end of 2006, although additional features will continue to be added.

**Omaha lead site** – Cleanup work continues at the Omaha lead Superfund site, which covers a large area of eastern Omaha. The region is roughly 8,800 acres, and approximately 65,600 residents live in the area. The site became a priority after elevated levels of lead in children's blood were discovered in the area, and initial tests indicated high levels of lead in about 40% of the residences' yards that were sampled. As part of the cleanup solution, the U.S. EPA is removing soil from properties with the greatest human health risk. EPA reports that 1,024 properties had been excavated from January 1 to November 8, 2006, and 2,795 have been excavated since the cleanup project began. Additionally, 2,164 properties have been sampled from January 1 to November 8, 2006, and 31,416 properties have been sampled since the project began. Although significant progress is being made, the complete cleanup process will take many more years. Two local public information centers have recently been established, so that residents can check on the status of their properties. They are located at 4909 S. 25<sup>th</sup> St. and 3040 Lake St. in Omaha.

### III. Legislation in 2006

Three pieces of legislation passed in 2006 which had a significant impact on the agency were:

LB 1226 – Creates the Storm Water Management Plan Program. Creates a grant program to assist cities with implementation of their approved storm water management. \$2.5 million of general funds is identified as the source for funding for each of the next two fiscal years.

LB 872 – Implements an emissions trading program that is consistent with the Clean Air Act, which will be implemented through the air operating permit program. Allows the use of air emission fees to develop and implement the emissions trading program.

LB 975 – Amends the Livestock Waste Management Act in response to a 2005 Second Circuit Court of Appeals decision regarding the EPA rule on Concentrated Animal Feeding Operations. Addresses portions of the Livestock Waste Management Act which will allow the state more flexibility to meet EPA's new program requirements.

### IV. State and Federal Actions Affecting Agency Staffing

The following is a breakdown of legislation over the past ten years that has affected staffing requirements at the Nebraska Department of Environmental Quality. The required programs are broken into three categories: 1) programs required by the federal government which did not require additional state legislation to adopt (Federally Mandated); 2) state legislation in response to federal requirements (State Legislation/Federally Mandated); and 3) state legislation which was not federally mandated (State Legislation/ Not Federally Mandated).

#### 1997 (210 FTE)

##### **State Legislation/Federally Mandated**

- Safe Drinking Water Act
- Resource Conservation and Recovery Act

##### **State Legislation/Not Federally Mandated**

- Clean Air Act
- Clean Water Act

#### 1998 (220 FTE)

##### **State Legislation/Not Federally Mandated**

- Livestock Waste Management Act
- Underground Storage Tanks/Petroleum Release Reimbursement Fund

#### 1999 (220 FTE)

##### **State Legislation/Not Federally Mandated**

- Livestock Waste Management
- Withdrawal from the Central Interstate Low-Level Radioactive Waste Compact

#### 2000 (215 FTE)

##### **State Legislation/Not Federally Mandated**

- Water Quality Assessment Report
- Public Records Review Process

#### 2001 (209 FTE)

**State Legislation/Not Federally Mandated**

- Clean Air Act (Emission Fee Cap)
- Groundwater Monitoring Report
- Extension of Litter Reduction and Recycling Grant Program
- Public Notice Requirements for Environmental Quality Council meetings
- Integrated Waste Management Act (Additional Fund Uses)

**2002** (209 FTE)**State Legislation/Not Federally Mandated**

- Cash fund transfer legislation

**2003** (212 FTE)**State Legislation/Not Federally Mandated**

- On-site Wastewater Treatment Act (septic systems)

**2004** (217 FTE)**State Legislation/Federally Mandated**

- Livestock Waste Management Act

**State Legislation/Not Federally Mandated**

- Air Quality Permit Fees

**2005** (217 FTE)**State Legislation/Not Federally Mandated**

- Air Emission Fees
- Petroleum Release Remedial Action Act

**2006** (218 FTE)**State Legislation/Federally Mandated**

- Livestock Waste Management Act
- Stormwater Grants
- Emission Trading



# CHAPTER 2:

## Administration/Legal/ Management Services/Field Offices

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The Administration and Management Services and Legal Divisions provide administrative, legal and day-to-day support services to the Agency programs essential to the effective operations of the Department.

### **I. Administration**

The Administration of the Department provides oversight and policy direction in all areas of the Department's activities. The Administrative staff includes the Director, Deputy Directors, Legal Counsel, Assistant Director, Associate Directors, Low-Level Radioactive Waste Program Manager, Division Administrators and the Administrative support staff. The Director and Deputy Directors are responsible for the overall function and coordination of Department activities. Generally, the Director is responsible for policy and the Deputy Directors for day-to-day management and administration. The Deputy Director of Administration serves as the manager of the Management Services Division. The Deputy Director of Programs, Assistant Director, Division Administrators, Associate Directors and the Program Manager are responsible for management, policy implementation, and coordination of activities in the various sections contained within their respective divisions.

The Administration of the Department is responsible for coordination with other local, state and federal agencies. Staff serve on various committees within the state. The administration is also responsible for coordination and negotiations with the U.S. Environmental Protection Agency. A significant amount of the agency's funding is derived through the EPA, and substantial coordination is required. In addition, the agency coordinates certain activities with the U.S. Department of Defense and the 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 the Agency is effectively responding to state Legislative activities and actions.

The Deputy Director of Administration 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 Director of Programs coordinates the various agency programmatic activities.

## II. Legal Division

The Legal Division provides legal support to the Director and the Agency. 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.

The Division also assists the Attorney General's office by providing legal expertise in environmental law and participating in court cases as requested.

During calendar year 2005, the Director issued 10 administrative orders. Thirty civil judicial cases were settled or decided by a court and penalties of \$610,263 were imposed. The Department encourages including environmentally beneficial projects (also known as supplemental environmental projects or SEPs) in settlements with the agency that restore the damaged environmental resource or enhance, protect, or reduce risks to the public health and welfare above and beyond what is required by law. In several cases, agreements for SEPs with an estimated dollar value of \$260,750 were made.

## III. Management Services

The Management Services Division provides administrative and technical support to Department programs. The Deputy Director of Administration heads the division. The division's staff is divided into five areas — Fiscal Services, Human Resources, Information Management, Public Information, and grant and contract coordination.

### Fiscal Services

The Fiscal Services Section provides the budgeting and finance functions and coordinates Department spending, purchasing, and accounting responsibilities. The section also provides advice and assistance to various programs on financial questions and conducts financial reviews of grantees. For example, the section provides significant staff assistance to the Water Division regarding the State Revolving Fund Loan Program.

This section serves as the financial liaison regarding grants with the EPA. A significant percentage of staff time is dedicated to meeting complex tracking requirements of the federal government.

As stated above, this section conducts financial reviews of the Department's various grant programs. Given the substantial amount of grant funds the Department distributes, it is essential to have staff reviewing financial activities of entities which receive funds. The Fiscal Services Section also assists the Integrated Solid Waste Management and Livestock programs in collecting and reporting all applicable fees. This section is also responsible for tracking receipt of Title V air emission fees.

## **Human Resources/Records Management/Database Administration**

This Section is divided into three organizational units that provide management services in the areas of Human Resources, Records Management and Database Administration.

### **Human Resources**

The Human Resources team is responsible to assist supervisors to recruit, hire, develop, retain, and reward a high quality of diverse staff and to promote a working environment that enhances the agency's mission and strengthens individual and organizational performance through fiscally responsible compensation and benefits programs, progressive human resource policies and targeted career and organizational development initiatives that support the agency'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; coordinate the agency'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 developing the agency's Affirmative Action Plan, monitoring the plan's goals and ensuring equal employment opportunity is an integral part of the daily activities of the agency. Other activities include: provision of technical assistance to supervisors concerning performance management and investigations of conduct complaints; participation on the agency's policy management team; participation on the State of Nebraska Management Bargaining Team to negotiate biannual Labor Contracts; evaluation of reasonable disability accommodations; and coordination of reporting requirements of the conflicts of interest provisions of the Nebraska Political Accountability and Disclosure.

### **Records Management**

The Records Management Unit is primarily responsible for managing the agency's public records. Documents are indexed into the Agency's computerized database, the Document Tracking System, and placed in files. Document indexing provides a brief description of individual documents in a file folder, or bound documents. Non-print formats like compact discs, diskettes, audiotapes and videotapes are also described through indexing. Approximately 134,600 agency files have been centralized into the agency's Document Tracking System. Centralizing the agency's records has increased accessibility to agency files for both agency staff and the public.

The Records Management Unit coordinates responses to requests for information from the public, private consultants, and regulated entities that wish to research the history of environmental activities at specific property. These public records requests generally involve a review of facility files on a variety of topics such as landfills, leaking underground storage tanks, and hazardous waste sites. The Unit responded to approximately 1,425 public records requests during FY2006.

The Records Management Unit also provides support services to the agency by distributing the agency's incoming and outgoing mail, ordering supplies and staffing the main reception and switchboard area.

**Database Administration**

Database Administration is the facility data clearinghouse for the agency's Integrated Information System (IIS). Database Administration provides accurate descriptive and locational information for each IIS facility, communicating and coordinating database information with agency program staff, Records Management, Information Technology, and the regulated community.

**Information Technology**

The Information Technology Section provides computer support and information management for all Agency locations. Five 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, 20 printers, two midrange AS/400 computers, three network servers, and software support. They also conduct training and oversee data telecommunications for the Agency. Three professional staff design, develop, support, and provide training for computer programs that satisfy the Agency's information management needs and administer the Agency's computerized databases. One professional staff member provides support and assistance with mapping/locational information through a Geographical Information System. One professional staff person is responsible for managing all of the Information Technology staff, develops and updates the agency technology plan, and coordinates Information Technology Section activities.

The agency has developed an Integrated Information System (IIS) which is a centralized, shared data base containing descriptive, locational, program specific, and paper file information for all facilities under the agency's jurisdiction. Nationally, NDEQ is among the leaders within state environmental agencies regarding information integration. In 1999, the agency received a grant from the EPA One Stop program to support our efforts towards and EPA's initiatives for data integration, burden reduction, public access, stakeholder involvement, and electronic reporting. NDEQ has used the grant money during 2000 and 2001 to improve our network, desktop equipment, and information systems. In 2002 and 2003, the agency received Network Readiness grants from EPA and in 2004, the agency received a Network Implementation Grant from EPA to support the exchange of information between states and EPA. The agency is utilizing these grants to build additional information systems and to provide agency information to staff and the public in a more graphical or browser based presentation. 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. Currently the agency is participating, as members and co-chairs, of a number of the work groups for the development of the Exchange Network.

## Public Information Office

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

A primary responsibility of this section is to handle questions from the public and media (newspaper, television and radio) regarding the Department'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.

This Section 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 Section 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 our web site.

An increasingly important method of communicating with the public is the agency's web site: **[www.deq.state.ne.us](http://www.deq.state.ne.us)**. The web site has grown considerably in recent years, and an agency-wide effort is under way to re-design the web page to make it more accessible and interactive for our customers.

The current site provides a wide array of information to the public relating to the agency, including:

|                         |                     |                    |
|-------------------------|---------------------|--------------------|
| Rules and Regulations   | News Releases       | Calendar of Events |
| Enforcement Resolutions | Program information | Fact Sheets        |
| Guidance Documents      | Forms               | Public Notices     |
| Reports                 |                     |                    |

All of these features will continue to be available on the web site after the re-design. Additionally, there will be a variety of new features and improved navigation for our customers.

## 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 and management, and ensures contracts are kept current and contractors meet contract conditions.

## 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.

## V. 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 Quality, Waste Management and Water Quality Divisions. There are 15 employees in 6 offices around the state. The local field offices enable the agency to provide the public with greater access to NDEQ staff, to provide more timely responses to citizens and to develop a better understanding of local issues because NDEQ staff live and work in the local community.

NDEQ began to add field offices in 2000. The primary goals in having staff throughout the state were to develop local contacts and to be the "eyes and ears" of the agency. These goals have been met. The following are two among many examples from 2006 of how these goals were met. Staff in the NDEQ Omaha office have and continue to play a vital coordination role in the Omaha Lead Site Superfund Clean-up. This included finding resources and smoothing out communication issues between local organizations and the federal Environment Protection Agency. Staff in the NDEQ Central Field Office (Holdrege) were able to provide early information about the public reaction to a proposed industrial plant. This allowed NDEQ to take a proactive approach. This would not have been possible if the Holdrege staff did not live and work the area.

As the field office staff have become more proficient in the Air Quality, Waste Management and Water Quality regulatory programs, they are taking on more and more of the inspection and complaint investigation work. The table below shows the number of inspections and complaint investigations that the field office staff conducted in 2006.

**Complaint Investigations and Inspections  
Conducted By NDEQ Field Office Staff in 2006**

| Program          | Complaints | Inspections |
|------------------|------------|-------------|
| Air Quality      | 107        | 82          |
| Water Quality    |            |             |
| Agriculture      | 24         | 278         |
| Waste Water      | 22         | 202         |
| Other Programs   | 51         | 63          |
| Waste Management | 121        | 110         |
| Total            | 325        | 735         |

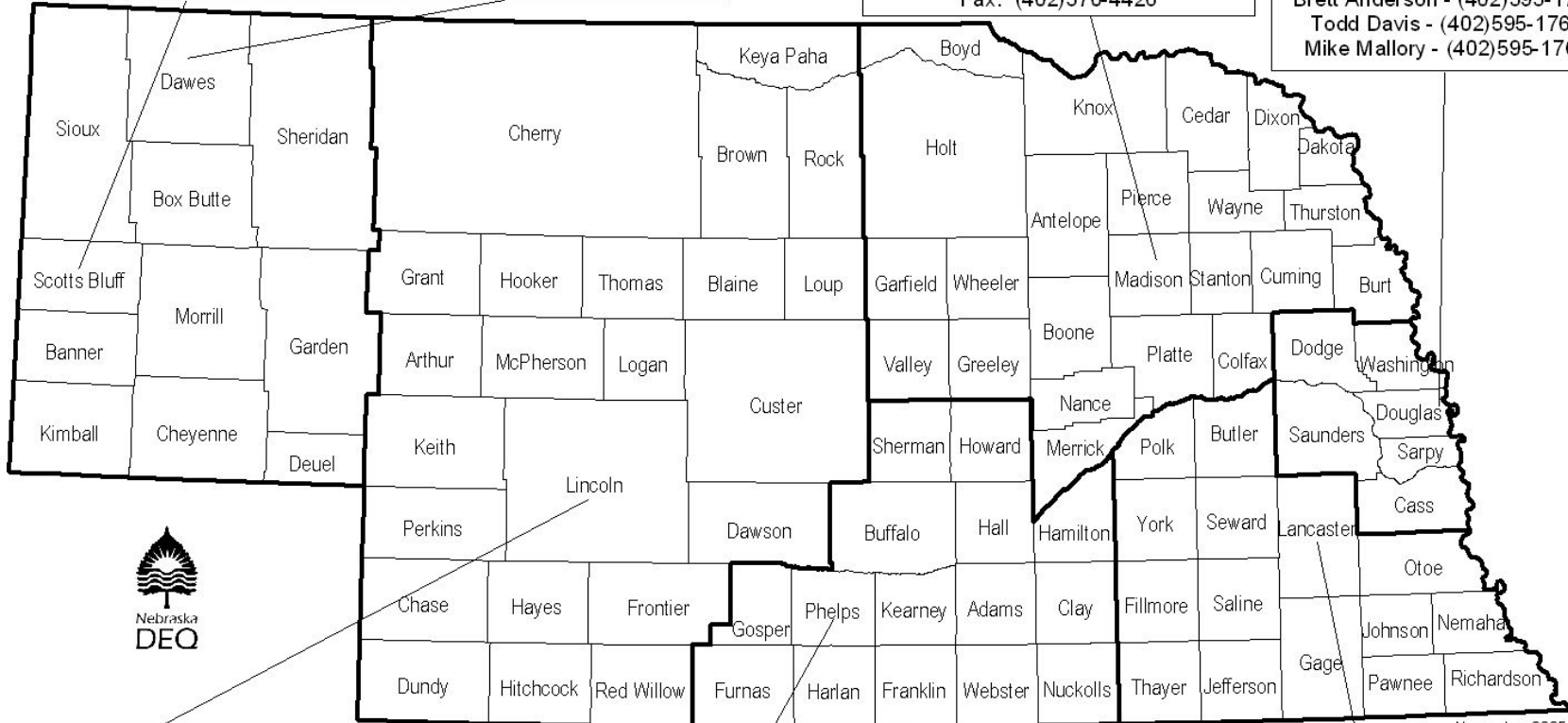
# Department of Environmental Quality Main Office and Field Office Sites

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November 2005

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# CHAPTER 3:

## Environmental Quality Council

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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. In addition, the Governor appoints the Director of the Department of Environmental Quality 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 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 health aspects of air, water and land pollution.

The Council meets quarterly. The Department of Environmental Quality publishes notice of these meetings together with an agenda and a description of proposed regulations to be considered. At these meetings, the Council holds public hearings on the proposed regulations. Any interested person may submit written comments on the proposed regulations and 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 or oversight in the administrative functions or day-to-day responsibilities of the agency. The Director of the Department of Environmental Quality is responsible for administration of the department and the rules and regulations adopted by the Council.

Following are two charts. The first lists the seventeen council members, the second summarizes Council actions during FY2006.



**Council Members**

| <b>Representing</b>           | <b>Council member</b>             | <b>Term Expires</b> |
|-------------------------------|-----------------------------------|---------------------|
| Agricultural Crop Production  | Rod Gangwish<br>Shelton           | June 22, 2009       |
| Ag Processing Industry        | Pat Trotter<br>Gothenburg         | June 22, 2007       |
| Automotive/Petroleum Industry | Mark Whitehead<br>Lincoln         | June 22, 2009       |
| Biologist                     | Mark Czaplewski<br>Grand Island   | June 22, 2009       |
| Chemical Industry             | Donald Williams<br>Orchard        | June 22, 2007       |
| County Government             | Jodi Thompson (Chair)<br>Imperial | June 22, 2007       |
| Conservation                  | John Turnbull<br>York             | June 22, 2007       |
| Food Products Manufacturing   | Vaughn J. Blum<br>Schuyler        | June 22, 2009       |
| Heavy Industry                | Michael Griffin<br>Crawford       | June 22, 2007       |
| Labor                         | Robert Hall<br>Wahoo              | June 22, 2009       |
| Livestock Industry            | Alden Zuhlke<br>Brunswick         | June 22, 2009       |
| Minority Populations          | Lawrence Bradley<br>Omaha         | June 22, 2009       |
| Municipal Government          | Michael W. Bair<br>Aurora         | June 22, 2009       |
| Municipal Government          | Ronald W. Zeiger<br>Syracuse      | June 22, 2009       |
| Physician                     | Dr. Janet Bernard<br>North Platte | June 22, 2007       |
| Power Generating Industry     | Joseph Citta, Jr.<br>Columbus     | June 22, 2009       |
| Professional Engineer         | John T. Baker<br>Scottsbluff      | June 22, 2007       |

### Council Actions

| <b>Council Meeting Date</b>        | <b>Regulation</b>   | <b>Action</b>       |
|------------------------------------|---|---------------------|
| September 8 & 9, 2005 -<br>Lincoln | Title 123 - Rules and Regulations for Design, Operation and Maintenance of Wastewater Treatment Works | Approved As Amended |
|                                    | Title 129 – Air Quality Regulations   | Approved As Amended |
|                                    | Title 132-Integrated Solid Waste Management Regulations   | Approved As Amended |
|                                    | Title 197 - Rules and Regulations for the Certification of Wastewater Treatment Operators in Nebraska | Approved As Amended |
| December 2, 2005 –<br>Lincoln      | Title 117 – Nebraska Surface Water Quality Standards  | Approved As Amended |
|                                    | Title 118 – Ground Water Quality Standards and Use Classification                                     | Approved As Amended |
| March 3, 2006 – Lincoln            | Title 123 - Rules and Regulations for Design, Operation and Maintenance of Wastewater Treatment Works | Approved As Amended |
| June 9, 2006 –<br>North Platte     | Title 128 - Nebraska Hazardous Waste Regulations  | Approved As Amended |
|                                    | Title 129 - Air Quality Regulations   | Approved As Amended |
|                                    | Title 130 - Rules and Regulations Pertaining to Livestock Waste Control                               | Approved As Amended |

# CHAPTER 4:

## Air Quality Division

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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 areas of the state that have air cleaner than the standards, and to implement air quality rules and regulations. Each year, thousands of tons of air pollutants are emitted into the air from industrial and other man-made activities. Many of these air pollutants can directly or indirectly affect human health, reduce visibility, cause property damage and harm the environment.

The major air quality programs are: the construction permit program, the operating permit program, the emission inventory program, the ambient air quality monitoring program, the inspection and compliance program, and the planning and development program.

Three local agencies -- the Lincoln/Lancaster County Health Department, the Omaha Air Quality Control, and the Douglas County Health Department -- have accepted through contract with the NDEQ, responsibility for various facets of the program. These responsibilities include air quality monitoring, planning, permitting and enforcement within their areas of jurisdiction.

### Permitting Section

#### Construction Permit Program

NDEQ has had a construction permit program for air contaminant sources since the 1970's. 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 applications received, processed and pending:

| <b>Beginning July 2005</b> | <b>Applications Received</b> | <b>Applications Processed</b> | <b>Pending June 2006</b> |
|----------------------------|------------------------------|-------------------------------|--------------------------|
| <b>65</b>                  | <b>73</b>                    | <b>82</b>                     | <b>56</b>                |

Nebraska also implements the federal construction permit program, Prevention of Significant Deterioration (PSD). The PSD program applies to sources that emit significant levels of emissions. If regulated, the source has additional requirements that must be met. Sources subject to the PSD program and significant sources of hazardous air pollutants are required to control emissions with the best control technology available. Predictive air quality modeling is used to ensure that any new or modified source will not cause or contribute to violations of the ambient air quality standards or otherwise significantly deteriorate air quality.

The Legislature passed LB449 in 2004, which provides the Department the authority to assess construction permit application fees. Fees are fixed based upon the emissions potential of the facility. This program began in January 2005. In FY06, the Department collected \$125,000. The fees generated through this program are used to pay a portion of the costs associated with processing construction permit applications.

In recent years, NDEQ has received an increasing number of applications from business and industry for air quality construction permits to build new or expand current business ventures across the state, including ethanol plants, power plants, and grain processing facilities.

Processing the increased number of permits in a timely manner has been a challenge for the department. As a result, NDEQ has committed significant resources to address these needs. The NDEQ invited persons from government and industry to help it improve its internal air permitting processes. A key component of this process improvement initiative involved a review of existing procedures and permitting processes and a proactive analysis seeking ways to improve the process.

A week-long rapid process improvement event called Kaizen resulted in recommendations and work products being developed to improve the permitting process. In the following months, several of the Kaizen results have been implemented, are in progress, and new staff have been hired to fill key vacant positions. These activities have culminated in the NDEQ establishing the Fast Track Permitting Program, an innovative program to facilitate and expedite the processing and issuance of air quality construction permits.

These efforts have resulted in many improvements that allow the NDEQ to be more efficient in the processing of permit applications, conducting reviews in a shorter time period, and still maintain the same high level of technical and regulatory review. This NDEQ initiative has significantly improved the construction permitting process for the general public and the Department alike.

Changes NDEQ has implemented as a result of its process improvement initiative include:

- Standardizing permit template language;
- Requiring pre-application meetings for more complex permit applications;
- Emphasizing pre-application information and activities;
- Implementing the permitting process with agreed upon timeframes (Applicant & Department);
- Developing ethanol and generic air construction permit application packages;
- Establishing a toll-free permit hotline;
- Filling key vacant Department staff positions; and
- Developing a rudimentary permit tracking system on the Department webpage.

As a result of these process changes, NDEQ has seen:

- More complete permit applications submitted;
- Improved communication with permit applicants;
- A 50% reduction in review time for ethanol plant air construction permits;
- An almost 50% reduction in review time for all air construction permits;
- A 55% reduction in the air construction permitting backlog; and
- Air Quality Division staff gain greater ownership of the process, empowering them to identify and address continual improvement opportunities.

### Operating Permit Program

The 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. The operating permits are renewed every five years. Operating permits are issued for both large and small sources of air pollution. The table below provides statistics relating to applications received, processed and pending:

| Beginning July 2005 | Applications Received | Applications Processed | Pending June 2006 |
|---------------------|-----------------------|------------------------|-------------------|
| 68                  | 72                    | 90                     | 50                |

### Compliance Section

#### Emission Inventory Program

Each year, the Department conducts an inventory of emissions from major industrial sources and a representative sample of minor industrial sources. Every three years, the Department assists the EPA to prepare a comprehensive national inventory. The comprehensive inventory accounts for all other man-made sources such as vehicular emissions and for non-man-made sources such as wind-blown dust. The emissions inventory is a tool for determining emission trends and for supporting regulatory efforts. This comprehensive inventory involves lengthy review and interaction with EPA. The most recent year that has been completed was for calendar year 2002; the next comprehensive inventory will focus on calendar year 2005. It is expected that this 2005 inventory will be completed sometime around FY2008.

The emission inventory program also supports assessing annual emission fees. Major industrial sources of air pollution pay emission fees for each ton of pollutant emitted per calendar year. The maximum over which a fee is assessed is 4000 tons per pollutant. For electrical generating facilities with a capacity of between 75 and 115 megawatts, the maximum is 400 tons per pollutant. The fees generated are used to support the major industrial source permitting programs.

In recent years, the Department had carryover funds available, which were used to offset the emission rate. However, for the 2005 inventory, which supports state fiscal year 2007, carryover funds were not available to the extent as in years past. Additionally, the reported chargeable emissions for 2005 were less than in 2004. For these reasons, the rate for 2005 emissions was \$51 per ton, an increase of \$13 per ton from the year of 2004.

### 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 two sites for monitoring regional haze impacts that are 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: the Nebraska Department of Environmental Quality, the Douglas County Health Department, and the Lincoln/Lancaster County Health Department. The Omaha Air Quality Program (which is within the Omaha Public Works Department) also provides periodic support for network related activities.

National standards have been established for the following six pollutants:

- Particulate Matter
  - With a diameter of 10 micrometers or less (PM<sub>10</sub>)
  - With a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>)
- Sulfur Dioxide (SO<sub>2</sub>)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Carbon Monoxide (CO)
- Ozone (O<sub>3</sub>)
- Lead (Pb)

The standards were established to protect both public health and public welfare.

Nebraska has an additional ambient air quality standard for Total Reduced Sulfur (TRS). The TRS standard is a public health based standard.

Monitoring results indicate that all areas of the state are in compliance with the standards, with the exception of some short-term exceedances of the TRS standard in Dakota City (47 minutes in April 2003, 10 minutes in April 2004, and 27 minutes on April 24, 2006). There have been significant reductions in TRS levels in the Lexington and the Dakota City/South Sioux City areas since 2000. The Department continues monitoring in these areas.

The monitoring network within the state is comprised of 36 monitors at 29 sites. See the table on the next page, titled *Nebraska's Air Monitoring Network - Summary Description*, for an overview description of monitor and site locations. For more information about the monitoring network, please refer to the *Nebraska Air Quality Report*, which may be found on NDEQ's website, [www.deq.state.ne.us](http://www.deq.state.ne.us).

| <b>Nebraska's Air Monitoring Network - Summary Description<br/>As of June 2006</b>   |
|--|
| <p><b>Monitors operated by the Douglas County Health Department</b></p> <p><b>Omaha Metro Area</b> (Douglas and Sarpy Counties)</p> <ul style="list-style-type: none"> <li>5 PM<sub>10</sub> monitors at 4 sites</li> <li>7 PM<sub>2.5</sub> monitors at 3 sites, including collocated continuous and speciation monitors</li> <li>3 Ozone monitors at 3 sites *</li> <li>1 Carbon Monoxide monitor at 1 site *</li> <li>2 Sulfur Dioxide monitors at 2 sites</li> <li>No Lead monitors, discontinued in 2002</li> </ul> <p>* The site at 30<sup>th</sup> &amp; Fort Streets has both ozone and a carbon monoxide monitor.</p> <p><b>Blair</b></p> <ul style="list-style-type: none"> <li>1 PM<sub>2.5</sub> monitor at 1 site</li> </ul>  |
| <p><i>Monitors operated by the Lincoln/Lancaster Health Department</i></p>   |
| <p><b>Lincoln Metro Area</b></p> <ul style="list-style-type: none"> <li>2 PM<sub>2.5</sub> monitors at 1 site</li> <li>1 Ozone monitor at 1 site</li> <li>1 Carbon Monoxide monitor at 1 site</li> </ul>   |
| <p><i>Monitors operated by the Nebraska Department of Environmental Quality</i></p>  |
| <p><b>Cozad</b></p> <ul style="list-style-type: none"> <li>1 PM<sub>10</sub> monitor at 1 site</li> </ul> <p><b>Dakota City</b></p> <ul style="list-style-type: none"> <li>1 TRS monitor at 1 site</li> </ul> <p><b>Gothenburg</b></p> <ul style="list-style-type: none"> <li>1 PM<sub>10</sub> monitor at 1 site</li> </ul> <p><b>Grand Island</b></p> <ul style="list-style-type: none"> <li>1 PM<sub>2.5</sub> monitor at 1 site</li> </ul> <p><b>Lexington</b></p> <ul style="list-style-type: none"> <li>1 TRS monitor at 1 site</li> </ul> <p><b>Scottsbluff</b></p> <ul style="list-style-type: none"> <li>1 PM<sub>2.5</sub> monitor at 1 site</li> </ul> <p><b>South Sioux City</b></p> <ul style="list-style-type: none"> <li>1 TRS monitor at 1 site</li> </ul> <p><b>Weeping Water</b></p> <ul style="list-style-type: none"> <li>4 PM<sub>10</sub> monitors at 3 sites, 1 PM<sub>2.5</sub> monitor at 1 site</li> </ul> |
| <p><b>IMPROVE monitor sites for the study of regional haze</b></p> <p>Two sites operated under contracts administered by the NDEQ:</p> <ul style="list-style-type: none"> <li><b>Nebraska National Forest In Thomas County</b></li> <li><b>Crescent Lake Wildlife Refuge in Garden County</b></li> </ul> <p>One site operated by the Omaha Tribe of Nebraska and Iowa and administered by EPA:</p> <ul style="list-style-type: none"> <li><b>Omaha Indian Reservation in Thurston County</b></li> </ul>  |

The network is evaluated annually and is subject to ongoing modification to address changing conditions or standards, new information, and modernization. Recent and anticipated network upgrades are summarized below.

### **Air Monitoring Network Changes and Modernization**

- Ozone and continuous PM<sub>2.5</sub> data is reportedly hourly to the EPA AirNOW system, which in turn makes air quality information available to the public on a contemporaneous basis. The AirNOW system maybe accessed at [www.airnow.gov](http://www.airnow.gov).
- All of the manually operated PM<sub>10</sub> monitors in rural Nebraska have been replaced with automated sequential monitors. The automated monitors reduce on-site attendance needs. Operations can be checked remotely via telephone modem links.
- Continuous PM<sub>10</sub> and PM<sub>2.5</sub> monitors: Currently the Nebraska Air Monitoring Network contains two continuous PM<sub>10</sub> monitors and one continuous PM<sub>2.5</sub> monitor, with two more continuous PM<sub>2.5</sub> monitors scheduled to begin operation in FY 2007. The data collected from continuous monitors is downloaded hourly, and can be used to issue pollution alerts. They also provide information on daily and hourly changes as they occur that cannot be obtained from the traditional filter monitors.
- Communications with the TRS monitors in Lexington, Dakota City and South Sioux City were upgraded to improve remote operational review capabilities from the Lincoln Office.
- Wireless modems were installed on the PM<sub>10</sub> monitors in Cozad and Gothenburg allowing remote operational surveillance and control from the Lincoln office.
- Monitoring at two PM<sub>2.5</sub> sites (in North Platte and Weeping Water) was discontinued at the end of calendar year 2005 in accordance with USEPA monitoring strategies and as needed to meet budgetary constraints (See *Future Air Monitoring Issues* below).
- Monitoring for carbon dioxide was discontinued at the site at 7425 West Dodge Road in June 2005 due to demolition of the site. Possible relocation of the site is pending completion of modeling being conducted by USEPA.

### **Future Air Monitoring Issues**

National air monitoring needs are shifting from monitoring for National Ambient Air Quality Standards compliance toward providing data that is also useful for developing a better understanding of regional/national air quality interactions. At the same time, emphasis is shifting away from coarse particulate matter (PM<sub>10</sub>) pollution toward fine particulates (PM<sub>2.5</sub>) and fine particulate precursors (trace level ammonia and sulfur dioxide).

It is anticipated that, over the next several years, continuous PM<sub>2.5</sub> and trace gas monitors may replace some existing monitors. The establishment of multiple pollutant monitoring sites at one or two rural sites and one site in the Omaha Metro Area is anticipated sometime after calendar year 2006.

The shifts in national air monitoring priorities have been accompanied by shifts in the federal funding support and this is anticipated to continue. USEPA provides the NDEQ with federal grant funding authorized under Section 103 and Section 105 of the Clean Air Act. Section 105 grant funding is used to support air monitoring to determine compliance with the National Ambient Air Quality Standards. Section 103 funding is used to fund monitoring conducted to evaluate air quality studies and new monitoring techniques. A significant



difference is that Section 103 grants require no state match, while Section 105 grants require a 40% state match.

Since PM<sub>2.5</sub> monitoring was initiated in 1999, it has been 100% funded by federal Section 103 grant funds. That funding was decreased in FY2006, and further decreases are anticipated in FY2007. Ultimately it is anticipated that no Section 103 funding will be available for PM<sub>2.5</sub> monitoring, and that PM<sub>2.5</sub> monitoring will need to be funded using Section 105 and state match funds. EPA planning does not anticipate increases in Section 105 grant funding to accommodate the PM<sub>2.5</sub> monitoring. Rather, a re-evaluation of monitoring priorities is to be used to control monitoring costs within the existing Section 105 funding framework.

The net result anticipated is that the current air monitoring network deployed for monitoring NAAQS compliance will shrink, while new monitors capable of providing information on national/regional air quality trends will be added to the network.

### Inspection and Compliance Program

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

As promoted in the Nebraska Environmental Protection Act, the Air 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.

### Compliance Activity Summary

| Compliance Activity             | NDEQ | Lincoln/<br>Lancaster Co. | Omaha Air<br>Quality Control | Total |
|---------------------------------|------|---------------------------|------------------------------|-------|
| On-site Inspections             | 147  | 99                        | 28                           | 274   |
| Stack Test Observations         | 13   | 3                         | 0                            | 16    |
| Continuous Emission Mon. Audits | 5    | 6                         | 3                            | 14    |
| Complaints                      | 109  | 25                        | 31                           | 165   |
| Burn Permits Issued             | 161  | 36                        | 78                           | 275   |

### Asbestos Program

In July of 2003, the Legislature reduced funding for the Division's Asbestos Program. Complaints are referred to the Nebraska Department of Health and Human Services. Lincoln/Lancaster County and Omaha Air Quality Control continue to be responsible for National Emission Standards for Hazardous Air Pollutants for Asbestos in their respective areas of authority.

#### Asbestos Program Summary

| Activity                       | NDEQ | Lincoln/<br>Lancaster Co. | Omaha Air<br>Quality Control | Total |
|--------------------------------|------|---------------------------|------------------------------|-------|
| Asbestos Project Notifications | N/A* | 73                        | 89                           | 162   |
| Asbestos Site Inspections      | N/A* | 52                        | 73                           | 125   |

\*NDEQ no longer conducts asbestos inspections or processes notifications.

### Planning and Development Program

Over the last year, the Division continued to devote resources for assistance and outreach activities. The Division's Education, Communication, and Outreach Plan identifies specific outreach objectives and strategies to meet the Division's goals. Implementation of the activities identified in the plan is a continuing effort. The Division continues to develop fact sheets and guidance documents to assist Nebraska businesses understand and comply with air quality regulations. Additionally, the Division continues to sponsor annual Air Program Update Workshops. In 2005, these workshops were attended by 179 representatives from businesses, consulting firms, and industry. These are half-day workshops held across the state where general and technical information is provided on current events, regulations, permitting activities, and modeling activities pertaining to the Air Quality program.

In 1999, EPA promulgated the regional haze rule, which is intended to protect the visibility and ecosystems of designated parks and wilderness areas in the United States. Since 1999, Nebraska has been working with states and tribes in the central United States to address regional haze issues. This effort has culminated in the development of a regional planning organization known as the Central Regional Air Planning Association (CENRAP). CENRAP membership is comprised of states, tribes, various federal agencies, and public stakeholders.

The Department is in the process of conducting Best Available Retrofit Technology (BART) assessments to BART-eligible sources and plans to submit its State Implementation Plan (SIP) for Regional Haze in 2007. The Regional Haze Rule calls for state and federal agencies to work together to improve visibility in 156 national parks and wilderness areas. BART-eligible sources are those whose emissions may contribute to visibility impairment in one or more of these areas.

During 2006, the Air Quality Division, with input from numerous stakeholders, developed and implemented new rules for the Prevention of Significant Deterioration of Air Quality (PSD) program. It continued to develop industry-specific rules for permits-by-rule, a streamlined permitting option for lower-emitting sources that fulfills both construction and operating permit requirements. In addition, it began the process of developing a program, under the federal Clean Air Mercury Rule, to reduce mercury emissions from coal-fired power plants.

# CHAPTER 5:

## Waste Management Division

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The Waste Management Division is comprised of two sections and one unit. These include the Waste Management Section, the Remediation Section and the Planning and Aid Unit. Both Waste Management and Remediation sections share responsibilities for the hazardous waste, 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. In fiscal year 2004, newly adopted Title 128 regulations became effective as part of an ongoing effort to keep the RCRA program current.

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, and
- maintenance of data systems to support decision making and make information available to the public.

The Compliance Assistance Program helps Nebraska businesses, governmental entities, and private citizens comply with RCRA 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 ultimately reducing 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 (TSD) 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 eliminate the release of hazardous material into the environment. Closure actions are required for treatment, storage or disposal (TSD) facilities that are discontinuing operations or that have operated without a permit. Permits are required for operating TSD facilities. Post-closure permits are required for TSD 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 have resulted in numerous permit modifications. These changes were made to improve the performance of the facility and ensure compliance with applicable regulations. In addition, Nebraska oversees three other active hazardous waste storage facilities which do not treat hazardous waste.

Corrective action is an important part of the RCRA program that 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 from regulated facilities. These regulations can make the former owner of a property responsible for mismanagement of hazardous waste if the current owner could not reasonably be expected to have actual knowledge of the presence of hazardous waste at the site. EPA presently operates the corrective action program in Nebraska, and is responsible for regulating cleanups at Nebraska facilities.

### **Program Funding**

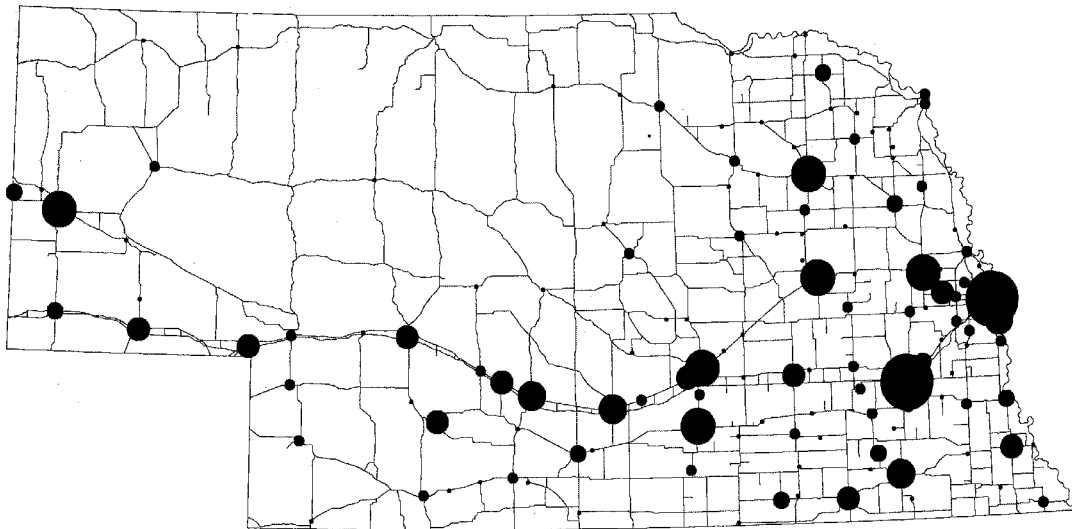
Funding for RCRA program activities is provided by an EPA grant, which requires a 25% state match. This match is met with state General Funds. Additionally, the Department can charge proposed commercial hazardous waste management facilities a fee to cover expenses for facility siting committee activities. There were no new facilities proposed in FY06.

The RCRA program collects a yearly fee from commercial hazardous waste treatment and disposal facilities. Currently, there is one facility in Nebraska which 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:

- 65 Large Quantity Generators (greater than 2200 pounds of hazardous waste generated per month)
- 463 Small Quantity Generators (between 220 and 2200 pounds generated per month)
- 1066 Conditionally Exempt Small Quantity Generators (less than 220 pounds generated per month)
- 1 Hazardous Waste Incinerator Facility
- 1 Federal Hazardous Waste Storage Facility
- 47 Treatment/Storage/Disposal Facilities (active and inactive)
- 20 Hazardous Waste Transporters
- 4 Hazardous Waste Storage Facilities (Non-Federal)

**Location of Facilities in Nebraska Regulated under RCRA**



● Size of symbols indicate relative RCRA activity based on number of facilities and amounts of hazardous waste generated.

| <b>Summary of FY2006 RCRA Activities</b>                   |              |            |
|--|--------------|------------|
| <b>Activity</b>  | <b>State</b> | <b>EPA</b> |
| <b>Compliance Assistance</b>                               |              |            |
| On-site Visits   | 6            | 0          |
| Direct Assistance Contacts                                 | 597          | *          |
| Public Outreach Presentations<br>(total 161 in attendance) | 7            | *          |
| <b>Inspections</b>   |              |            |
| Land Treatment Facilities                                  | 17           | 0          |
| Treatment and Storage Facilities                           | 1            | 0          |
| Comprehensive Groundwater<br>Monitoring Evaluations        | 0            | 0          |
| Operation and Maintenance<br>Inspections                   | 4            | 0          |
| Facility Self-Disclosure                                   | 0            | 0          |
| Large Quantity Generator                                   | 15           | 7          |
| Small Quantity Generator                                   | 29           | 2          |
| Conditionally Exempt Small<br>Quantity Generators          | 15           | 9          |
| Transporters   | 0            | 0          |
| <b>Permitting</b>  |              |            |
| Closure Plans Finalized                                    | 3            | 0          |
| Permits Issued/Renewed                                     | 3            | 2          |
| Modifications  | 8            | 1          |
| EPA Corrective Action Orders                               | *            | 0          |
| <b>Record Reviews</b>                                      |              |            |
| Financial Assurance  | 40           | 1          |
| * - 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 National Priorities List (NPL). Nebraska currently has fourteen sites on the National Priorities List. One of these sites, the Waverly Groundwater Contamination Site, is currently proposed to be deleted from the NPL as the cleanup goals for the site have been achieved. Ten of the sites are in the cleanup phase; and three sites (Parkview Well Site in Grand Island, Garvey Elevator in Hastings, and West Highway 6 & 281 in Hastings) are relatively new to the National Priority List and are in the either the site studies or remedy selected stages. 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 full Superfund process.

The investigation and remediation of contaminated sites 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 a preliminary assessment. This step involves the collection of background information such as property ownership, operational history, geology/hydrogeology, and performing a site reconnaissance. The third step is called a site investigation, which involves sampling environmental media, such as soil and groundwater. In some situations, the preliminary assessment step and the site investigation step are combined. 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, the Department has performed work on six combined preliminary assessments/site investigations and one site reassessment.

**NPL Site Management Assistance** — The Superfund Management Assistance program provides management and technical support to the EPA at priority 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, Superfund 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. The Department also participates in public meetings with citizens and local officials in the development of cleanup plans. The table on the following page identifies completion of major phases of work at the proposed and final NPL sites in Nebraska.

## Cleanup Progress at Proposed and Final NPL Sites in Nebraska

| Site   | County    | Removal Actions | Site Studies | Remedy Selected | Remedy Design | Remedy Construction | Cleanup |
|--|-----------|-----------------|--------------|-----------------|---------------|---------------------|---------|
| Cornhusker Army Ammo Plant (Grand Island)          | Hall      | X               | X            | X               | X             | X                   | Ongoing |
| Hastings Groundwater Contamination (Hastings)      | Adams     | X               | X            | X               | X             | X                   | Ongoing |
| Lindsay Manufacturing Co. (Lindsay)                | Platte    | ■               | X            | X               | X             | X                   | Ongoing |
| Nebraska Ordnance Plant (Mead)                     | Saunders  | X               | X            | X               | X             | X                   | Ongoing |
| Waverly Groundwater Contamination (Waverly)        | Lancaster | ■               | X            | X               | X             | X                   | X       |
| 10th Street Site (Columbus)                        | Platte    | X               | X            | X               | X             | X                   | Ongoing |
| Cleburn Street (Grand Island)                      | Hall      | ■               | X            | X               | X             | X                   | Ongoing |
| Ogallala Groundwater Contamination Site (Ogallala) | Keith     | X               | X            | X               | X             | X                   | Ongoing |
| Bruno Coop Association (Bruno)                     | Butler    | X               | X            | X               | X             | X                   | Ongoing |
| Sherwood Medical (Norfolk)                         | Madison   | X               | X            | X               | X             | X                   | Ongoing |
| Omaha Lead Site (Omaha)                            | Douglas   | X               | X            | X               | X             | X                   | Ongoing |
| Parkview Well Site (Grand Island)                  | Hall      | X               | X            | X               |               |                     |         |
| Garvey Elevator (Hastings)                         | Adams     | Ongoing         | Ongoing      |                 |               |                     |         |
| West Highway 6 & 281 (Hastings)                    | Adams     | Ongoing         | Ongoing      |                 |               |                     |         |

### Chart definitions:

**Removal Actions:** Short-term action intended to stabilize or clean up an incident or site that poses an imminent or substantial threat to human health or the environment.

**Site Studies:** Investigation of the nature and extent of contamination at a site, the potential long-term risks to human health and the environment posed by the contamination, and evaluation of a list of potential cleanup actions to address the contamination.

**Remedy Selected:** Preferred cleanup action selected from the list of potential cleanup actions.

**Remedy Design:** Completion of detailed engineering design plans for the cleanup system.

**Remedy Construction:** Status of the construction of the cleanup system.

**Cleanup:** Status of operation and maintenance of the cleanup system.

### Symbol key:

X = Activity Completed      ■ = Activity Not Necessary      Blank = Activity Not Started

*Note: Various Operable Units at large sites may be at different stages.*



**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. Ninety-one 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 at three active sites and twenty-seven formerly used defense sites. Military munitions response activities are being performed at eight sites.

## 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 the Department. 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.

The department has recently entered into a Memorandum of Agreement (MOA) with EPA Region VII, which provides federal approval of the voluntary cleanup program. 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, 22 sites have entered the voluntary cleanup program. Currently, three sites are active in the voluntary cleanup program. Five sites are inactive, but still in the program. One site has been deferred to the Department's Petroleum Remediation Section. Two sites have been deferred to the EPA Superfund program. Three sites withdrew from the program. Eight sites have successfully completed cleanup requirements and have received "No Further Action" letters from the Department. Over the last several years, this program has been directly involved in the extensive redevelopment activities associated with the City of Omaha Riverfront Redevelopment. The program's current involvement along the riverfront consists of activities associated with construction of high-rise condominiums and a pedestrian bridge over the Missouri River.

**Targeted Brownfield Assessments** — A brownfield site is vacant or under-used industrial or commercial property where expansion or redevelopment is complicated by real or perceived contamination. The voluntary cleanup program performs targeted brownfield assessments at brownfield sites in Nebraska. These assessments are performed by NDEQ at no cost to interested parties in Nebraska communities. A targeted brownfield assessment is a preliminary investigation to evaluate the environmental conditions at a property, similar to a Phase I and Phase II Environmental Site Assessment. During the past year, the Department has performed nine targeted brownfield assessments.

### RAPMA Sites and Status

| Site                                       | Location               | Status                                    | Date of Entry into RAPMA Program |
|--|------------------------|---|----------------------------------|
| KN Energy                                  | Holdrege               | Completed 5/01/97                         | 4/3/95                           |
| Garvey Elevator                            | Hastings-West          | Deferred to EPA Superfund                 | 4/13/95                          |
| ASARCO                                     | Omaha-Riverfront       | Completed 10/11/01                        | 1/8/96                           |
| BNSFRR                                     | Lincoln-N. Havelock    | Inactive                                  | 1/17/96                          |
| Union Pacific RR                           | Omaha-N. Downtown      | Withdrawn 3/7/03                          | 1/17/96                          |
| Farmland Industries                        | Scottsbluff            | Deferred to Petroleum Remediation Section | 2/26/96                          |
| Lincoln Journal Star                       | Lincoln-Downtown       | Inactive                                  | 2/26/97                          |
| Farmland Industries                        | Hastings-East          | Completed 9/2/03                          | 6/25/97                          |
| Hastings Area wide                         | Hastings               | Withdrawn 6/23/00                         | 12/17/97                         |
| Lincoln Plating Co.                        | Lincoln                | Inactive                                  | 8/17/98                          |
| Witco Corporation                          | Omaha-North            | Completed 6/29/99                         | 1/20/99                          |
| BNSFRR                                     | Lincoln-Lot 9 Havelock | Completed 2/20/01                         | 4/28/99                          |
| Dana Corporation                           | Hastings-West          | Deferred to EPA Superfund                 | 9/27/99                          |
| Ballpark Complex                           | Lincoln-Haymarket      | Completed 9/1/06                          | 11/9/99                          |
| Progress Rail Services                     | Sidney-North           | Completed 1/3/06                          | 11/22/99                         |
| Brownie Manufacturing                      | Waverly-Highway 6      | Withdrawn 7/19/01                         | 4/25/00                          |
| BNSFRR                                     | Lincoln-Havelock Yards | Inactive                                  | 10/26/00                         |
| New Holland                                | Grand Island-Southwest | Active                                    | 11/9/00                          |
| Owen Parkway East                          | Omaha-Abbott Drive     | Inactive                                  | 12/13/00                         |
| Omaha Riverfront Redevelopment – 3 parcels | Omaha-Riverfront       | Completed 6/18/03, 12/9/03, 11/9/04       | 5/18/01                          |
| Sanford & Son                              | Lincoln-North          | Active                                    | 1/22/02                          |
| Union Pacific RR Child Development Center  | Omaha-N. Downtown      | Active                                    | 3/5/04                           |

## 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) Special waste characterizations; 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; and 10) Financial assurance review and monitoring compliance.

The program regulates municipal solid waste disposal areas (landfills), construction and demolition debris sites, fossil fuel combustion ash disposal sites, industrial and delisted hazardous waste sites, 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 Department assists landfill operators in making special waste characterizations for waste that requires special handling, treatment, or disposal methodologies in order to protect public health, safety, and the environment. While many of these requests are routine, others need to be evaluated by program staff to determine if the waste is acceptable at that particular landfill.

The waste management program coordinates with other department divisions 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 number of facilities:

| <b>Total Permitted Facilities in FY 2006</b>     |            |
|--|------------|
| Municipal Solid Waste Disposal Areas (Landfills) | 23         |
| Industrial Waste                                 | 1          |
| Solid Waste Compost Sites                        | 9          |
| Transfer Stations                                | 38         |
| Materials Recovery Facilities                    | 5          |
| Construction & Demolition Waste Disposal Areas   | 21         |
| Delisted Waste Disposal Areas                    | 1          |
| Fossil Fuel Combustion Ash Disposal Areas        | 7          |
| <b>Total</b>                                     | <b>105</b> |

| <b>Summary of Activities: FY2006</b> |     |
|--------------------------------------|-----|
| <b>Compliance</b>                    |     |
| Facility Inspections (General)       | 107 |
| Facility Inspections (Construction)  | 3   |
| Complaints Received                  | 123 |
| Complaints Investigated              | 79  |
| Complaints Closed                    | 68  |
| <b>Permitting</b>                    |     |
| New Permits Issued                   | 0   |
| Permit Renewals                      | 14  |
| Major Permit Modifications           | 3   |
| Transferred Permits                  | 0   |
| Public Hearings                      | 0   |
| Financial Assurance Reviews          | 147 |
| Facilities Closed                    | 1   |

### **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.

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 at all municipal solid waste landfills. Fifty percent of the quarterly disposal fees are redistributed as grants and administration of the Waste Reduction and Recycling Incentives Grants Program and fifty percent of the quarterly disposal fees are utilized for administrative costs of 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**

The waste tire management program is also regulated by Title 132. Waste tire processors are no longer required to obtain individual permits, but approved beneficial uses of waste tires are outlined in the regulations. Waste tire haulers are required to obtain individual permits annually. Waste tire haulers 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 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 outreach includes responding to telephone inquiries, letters, and contacts from other states, developing guidance

documents, conducting site visits and providing technical advice. The Department 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.

| <b>Waste Tire Permit Totals, FY2006</b> |    |
|---|----|
| <b>Permitting</b>                       |    |
| Renewed Hauler Permits                  | 18 |
| New Permits Issued                      | 3  |

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.

### **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:

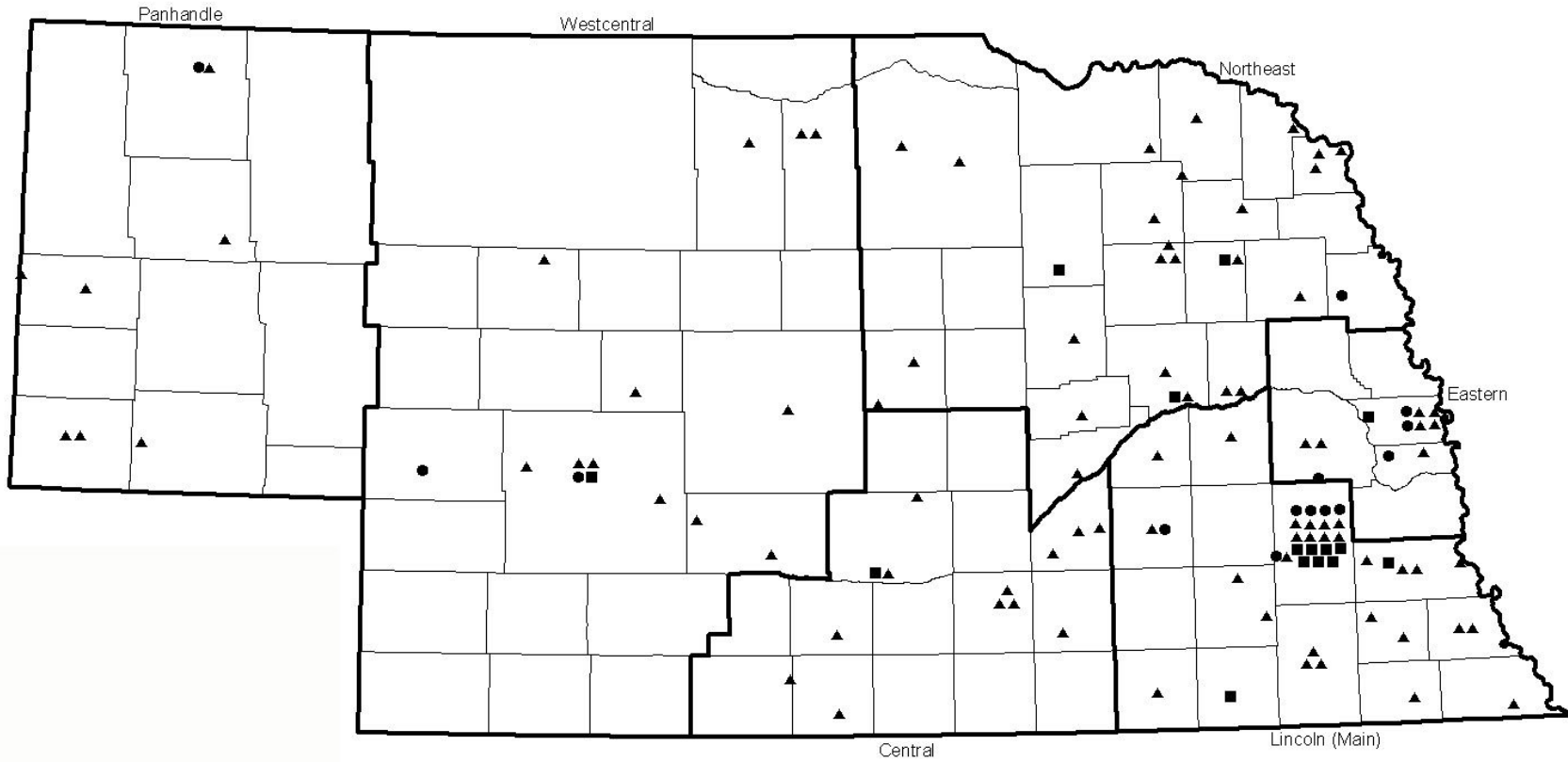
- A business fee on sales of tangible personal property, which generates about \$700,000 annually.
- A \$1 per tire fee on the retail sale of new tires in Nebraska, which generates about \$1.6 million annually;
- Fifty percent of the \$1.25 per ton disposal fee on solid waste disposed of in permitted landfills, which generates approximately \$1.1 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.

Part of the landfill disposal fee is awarded in the form of rebates to counties and municipalities through the disposal fee rebate program. LB 592, passed in 1999, provides for multi-year renewable grants to political subdivisions. Priority for multi-year grants is given to applicants who address the first component of the solid waste hierarchy, waste reduction, which also includes reducing the toxicity of waste. Additionally, priority is given to those that indicate regional participation. Multi-year grants are limited to 50 percent of the designated fees available in the Waste Reduction and Recycling Incentive Fund after rebates, and can be renewed for a period of up to five years. Applicants for multi-year grants must submit, or have on file, an updated integrated solid waste management plan.

**Summary of Activities** -- For calendar year 2006, the Department awarded \$2,709,873 in the Waste Reduction and Recycling Incentive Grants Program to 126 projects. Eighteen of these grants were awarded in the Business Fee category (\$565,903), 17 were awarded from the Disposal Fee category (\$985,095), and 91 received grants from the funds set aside from the scrap tire funds (\$1,158,875). The following map shows the locations across Nebraska that received funds.

## Waste Reduction and Recycling Incentive Grants Program 2006 Grant Awards



|                |                    |   |
|----------------|--------------------|---|
| ■ Disposal Fee | \$985,095          | 17 grants, including 2 regional                 |
| ● Business Fee | \$565,903          | 18 grants, including 1 statewide and 1 regional |
| ▲ Tire Fee     | \$1,158,875        | 91 grants, including 2 regional                 |
| <b>Total</b>   | <b>\$2,709,873</b> | <b>126 grants</b>                               |

**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 equal to \$175 for each million dollars of products manufactured. The annual litter fee for wholesalers and retailers is equal to \$175 for each million dollars of the sales made in the state. Approximately \$1.2 million is received annually.

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

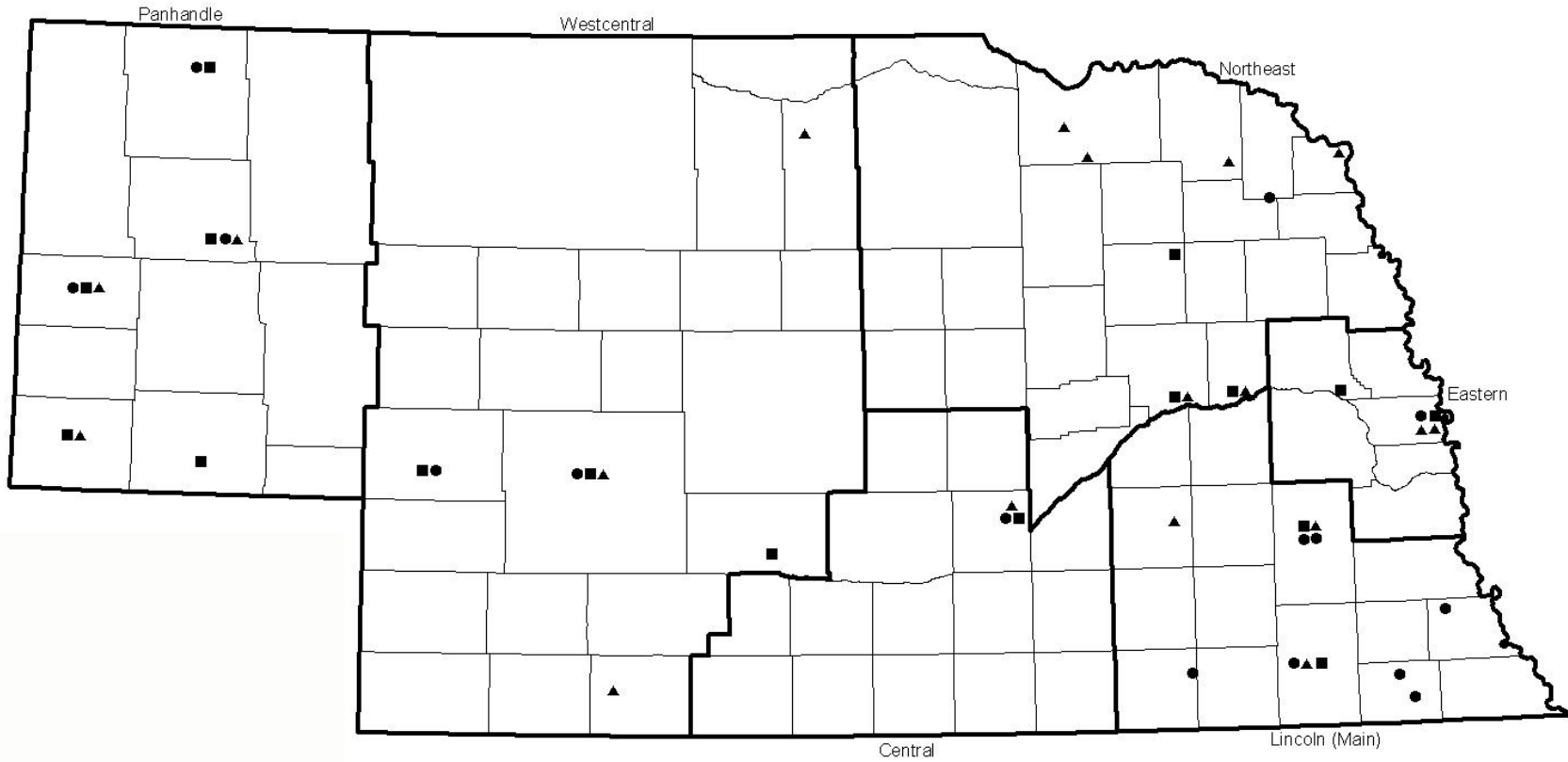
- Food for human consumption, beverages, soft drinks, carbonated water, liquor, wine, beer, and other malt beverages, unless sold by retailers solely for consumption indoors on the retailer's premises;
- Food for pet consumption;
- Cigarettes and other tobacco products;
- Household paper and household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

The Litter Reduction and Recycling funds are awarded in three categories listed below. Each year the Environmental Quality Council establishes the percentages for allocation of funds for each category. The table for 2006 below shows amounts awarded, number of grantees, and purpose of the grants.

| <b>Category</b>  | <b>Percentage allocation</b> | <b>Number of grantees</b> | <b>Amount Awarded</b> | <b>Purpose of grants</b>  |
|------------------|------------------------------|---------------------------|-----------------------|---|
| Public Education | 37%                          | 19                        | \$479,434             | Programs promoting recycling, the reduction of litter and a desire for a cleaner environment, and securing greater awareness of and compliance with anti-litter laws.   |
| Cleanup          | 9%                           | 15                        | \$122,012             | Litter cleanups of public highways, waterways, recreation lands, urban areas, and public places.  |
| Recycling        | 54%                          | 20                        | \$696,127             | New or improved community recycling and source separation programs. An important key to successful long-term recycling in Nebraska is establishing lasting markets for the recycled commodities that we collect. The Department continues to give priority consideration to recycling proposals contributing to market development. |
| <b>Total</b>     | <b>100.0%</b>                | <b>54</b>                 | <b>\$1,297,573</b>    |   |



## Litter Reduction and Recycling Grant Program 2006 Grant Awards



|                    |                    |   |
|--------------------|--------------------|---|
| ■ Public Education | \$479,434          | 19 grants, including 1 statewide and 2 regional |
| ● Cleanup          | \$122,012          | 15 grants                                       |
| ▲ Recycling        | \$696,127          | 20 grants, including 2 statewide                |
| <b>Total</b>       | <b>\$1,297,573</b> | <b>54 grants</b>                                |

**Illegal Dumpsite Cleanup Program**

The Illegal Dumpsite Cleanup Program, established in 1997, is a cleanup program which 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.

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. Approximately \$125,000 is available annually.

During fiscal year 2006, \$109,082 was reimbursed to political subdivisions for the cleanup of illegal dump sites. A total of eleven political subdivisions received funding through the program. This included eight counties, one public power district, and two municipalities. The completed cleanups have been responsible for the proper handling of illegally disposed waste and preservation of the beauty of Nebraska's roadsides.

The Department is encouraging municipalities, counties, and other political subdivisions to submit applications for the reimbursement of cleanup efforts.

**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 drawn 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 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 10-cent rebate from the \$1.25 per ton disposal fee. Rebates are provided quarterly.

Since its inception, seven communities and two counties have participated in the program. A total of \$83,875 in rebates was awarded in fiscal year 2006.

# CHAPTER 6:

## Water Quality Division

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The goal of the Water Quality Division is to protect the surface and groundwater resources in Nebraska. This chapter describes the major programs that the Water Quality Division administers.

### **Petroleum Remediation Program**

NDEQ's activities regarding the Petroleum Remediation Program involve two inter-related program areas: 1) overseeing remediation of petroleum contamination resulting from leaking above ground storage tanks and leaking underground storage tanks; and 2) administering a remediation assistance fund for persons responsible for cleanup costs due to petroleum releases from tanks.

#### **Petroleum Remediation/Title 200 Reimbursement Fund**

The first step in the Petroleum Remediation Program is the review of tank removal assessment reports to determine whether potential contamination exists. In the event these reports indicate a threat to health, safety, or the environment, the program then 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 points of exposure that may be impacted. Program staff review these reports to determine cleanup requirements and issue public notices with their decisions. Staff review remedial actions throughout the project and determine when sufficient cleanup has been accomplished. The program also has several "orphan" sites for which remediation is proceeding through contracts paid with federal or state funds.

Due in part to the recommendations of a technical advisory committee and legislative requirements, the program has developed risk-based corrective action (RBCA) regulations and accompanying guidance. The RBCA process allows evaluation of all petroleum release sites based on the risk they pose to human health. Those that pose no significant risk are closed; those that pose significant risk are prioritized for further work. For the past six years, 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 investigate additional sites each month 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, the next step in the RBCA process.

Since June 1999 through the end of June, 2006, 1,348 Tier 1 site investigations have been initiated. Of the 1,287 Tier 1 field investigations completed thus far, 823 (64%) were closed, and 464 (36%) were determined to need a more detailed Tier 2 investigation. Of the 1,493 sites that have completed a Tier 1 or Tier 2 investigation, 148 (11%) have reported finding the contaminant methyl tert-butyl ether (MTBE) in groundwater. Since April 2002, 258 Tier 2 investigations have been initiated; out of the 206 completed, 155 (75%) have been closed.

The Petroleum Remediation Program is also responsible for the Petroleum Release Remedial Action Reimbursement Fund, established to help pay remediation costs for owners/operators of facilities which have leaking petroleum tanks. Costs for both underground and above ground tank releases are eligible for reimbursement. To assist applicants, the program developed guidelines entitled "Reasonable Rates Schedule and Reimbursement Guidance Manual." The program's activities in this area include receiving and processing applications for reimbursement from the fund and subsequently initiating reimbursements for eligible costs. Processing of applications involves:

- Reviewing the completeness of the applications;
- Checking compliance with requirements of tank registration and removal;
- Evaluating eligible costs as defined by Department regulations (Title 200);
- Determining if reasonable rates are being charged by consultants for the work; and
- Determining if the work plans and actions undertaken are consistent with the Department's regulations.

The revenue going into the fund is about \$11 million annually. As of June 30, 2006, a total of \$108,260,882 has been disbursed since the program began. During the past fiscal year, NDEQ reimbursed \$5,082,558 to 202 active sites and an additional \$4,069,086 to 187 Tier 1 sites.

Due to increased efforts to clean up sites and reduce the backlog, the fund balance had declined to about \$10.3 million, as of October 31, 2006. To keep the fund balance at an acceptable level, a reduction in new work approved is anticipated, beginning around January 2007. The projections indicate spending will have to be reduced by about 25%. The workload will be managed to ensure the fiscal viability of the program, while continuing to clean up as many sites as possible.

The 25 sites listed below, all but four of which are active, have received a total reimbursement of more than \$600,000 each. Once the statutory limit is reached (either \$975,000 or \$985,000, depending on the applicable deductible/co-payment amount), the responsibility of funding the remainder of cleanup necessary reverts to the responsible person.

| Site Name                 | City         | Reimbursed Amount<br>(as of June 30, 2006) | Site Status<br>(as of June 30, 2006) |
|---------------------------|--------------|--|--------------------------------------|
| Burlington Northern RR    | Alliance     | \$975,000.00 X                             | Active                               |
| Burlington Northern RR    | Alliance     | \$972,578.98 X                             | Active                               |
| Konecky Oil               | Mead         | \$975,000.00 X                             | Active                               |
| Elkhorn Valley Coop       | Snyder       | \$953,516.14                               | Active                               |
| Burlington Northern & SF  | McCook       | \$943,998.71                               | Active                               |
| Magers Service            | North Platte | \$927,782.88                               | Active                               |
| Coop Firth                | Firth        | \$902,920.38                               | Active                               |
| Peterson Oil Co Inc       | Davenport    | \$902,901.90                               | Active                               |
| Tomahawk Truck Stop       | North Platte | \$878,906.89                               | Closed                               |
| Corner Service            | Bancroft     | \$862,630.37                               | Active                               |
| Gordon Airport Authority  | Gordon       | \$865,512.06                               | Closed                               |
| Valero LP                 | Norfolk      | \$840,439.34                               | Active                               |
| Neitzel Oil Co.           | Springfield  | \$832,858.76                               | Active                               |
| Dankerts Inc.             | Chambers     | \$812,743.44                               | Active                               |
| Former Hershey Truck Stop | Hershey      | \$778,245.90                               | Active                               |
| BNSF                      | Alliance     | \$771,955.15                               | Active                               |
| Henkel Oil Co             | Norfolk      | \$764,600.66                               | Active                               |
| Ameritas Investment Co    | Lincoln      | \$715,921.18                               | Active                               |
| Klepper Oil               | Du Bois      | \$672,529.92                               | Closed                               |
| Wortman Motor Co.         | Doniphan     | \$622,456.15                               | Active                               |
| Whitehead Oil 33rd A      | Lincoln      | \$650,252.83                               | Active                               |
| Coop Panhandle            | Mitchell     | \$640,472.69                               | Active                               |
| Sinclair Oil Corp.        | Grand Island | \$641,589.84                               | Active                               |
| IBP ATV(At The Verticals) | Dakota City  | \$639,304.55                               | Active                               |
| Barnard Oil Company       | Beatrice     | \$617,881.13                               | Closed                               |

X: The statutory limit has been reached. The total reimbursed amount may have been reduced due to noncompliance reductions.

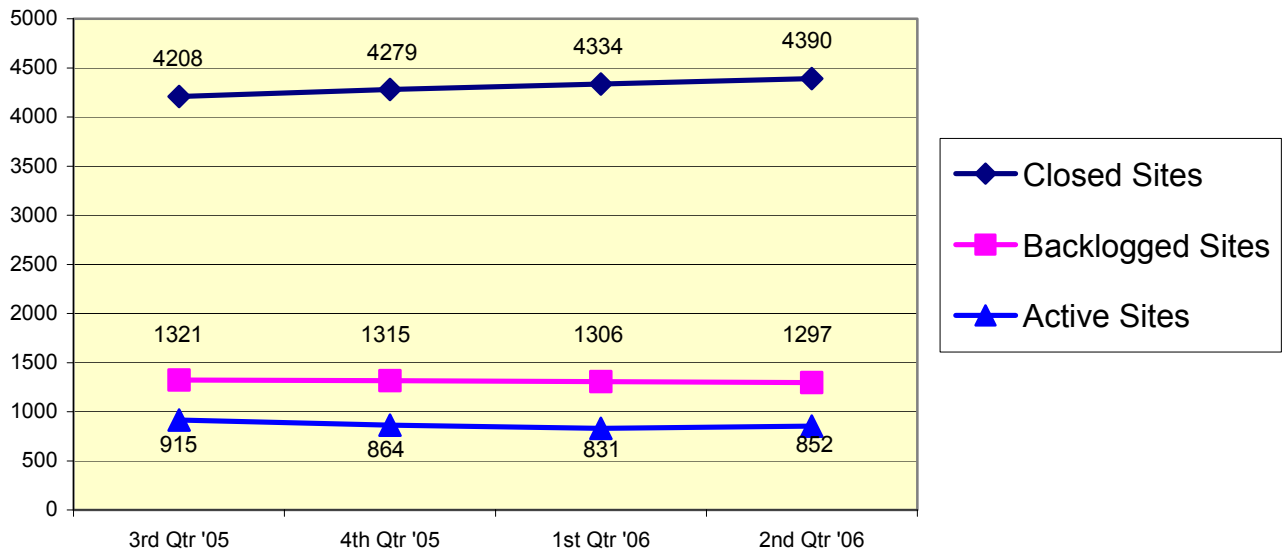
Responsible persons are able to perform voluntary remedial action prior to NDEQ’s approval of their plans and still be eligible for reimbursement consideration in the future. This allows sites to move forward on their own. Over 130 suspended or backlogged leaking underground storage tank sites have been closed based on voluntary submittals.

As of October 2006, there were 227 “orphan” sites (sites that do not have an identified or solvent party designated as responsible for cleanup) in some stage of investigation/cleanup. There were also 705 orphan sites waiting on the inactive list on September 30, 2006. NDEQ uses federal and state money for investigation and cleanup of these sites.

The following is a chart of quarterly activities for the last fiscal year relating to petroleum remediation sites in Nebraska. The chart provides information relating to:

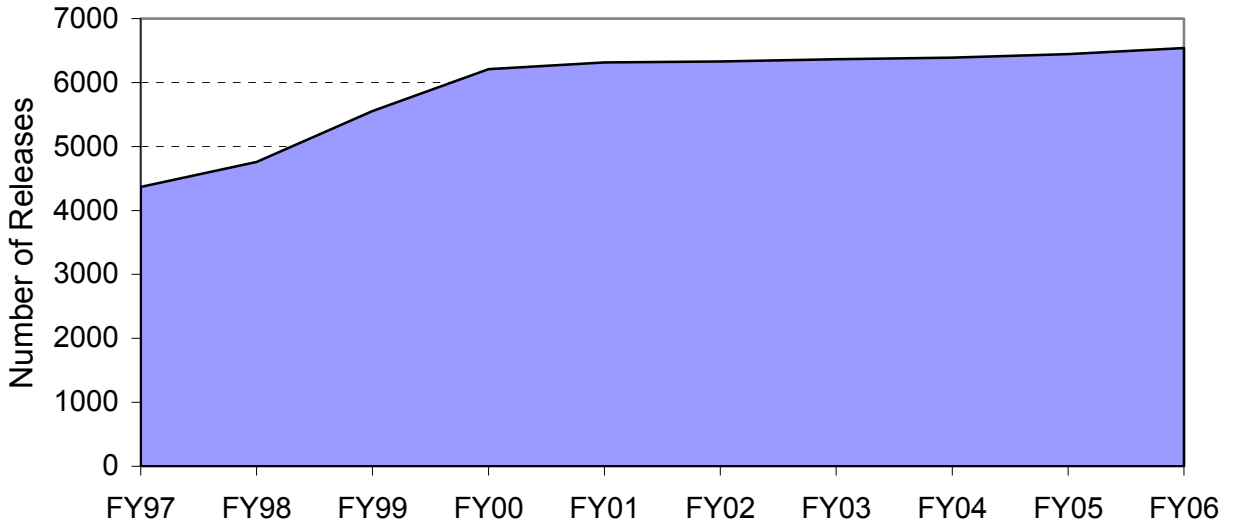
- Closed Sites: Sites that have been closed either because they have been cleaned up or it has been determined that no cleanup is necessary
- Backlogged Sites: Sites identified as potentially needing cleanup, but are on a waiting list for further investigation
- Active Sites: Sites that are currently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

**Petroleum remediation site trends:  
July 1, 2005 to June 30, 2006**

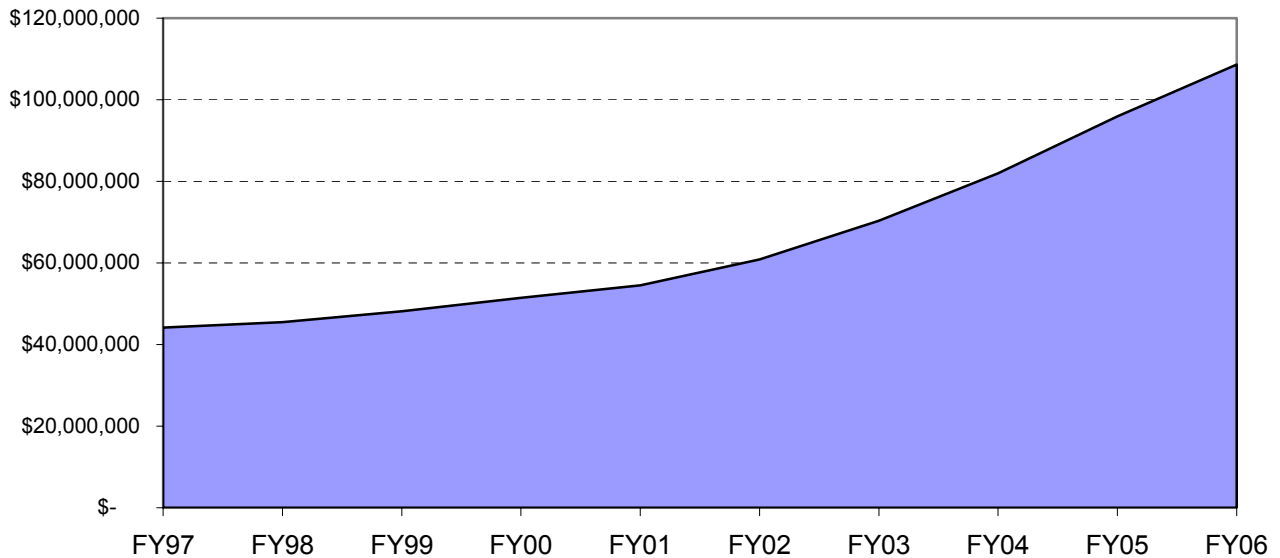


The chart below shows the cumulative number of sites that have had releases in the last several years. The second chart shows the cumulative amount that the program has spent on investigation and cleanup.

**Cumulative Release Totals  
(last 10 years through FY06)**



**Cumulative Title 200 Disbursements  
(last 10 years through FY06)**



## Agriculture Programs

The Agriculture Section includes the Livestock Waste Control Program, the Chemigation Program and the Agricultural Chemical Secondary Containment Program. The Livestock Program is responsible for administering Title 130 -- Livestock Waste Control Regulations which apply to animal feeding operations in Nebraska and management of livestock waste. The Chemigation Program administers Title 195 -- Rules and Regulations Pertaining to Chemigation. The program, together with Nebraska's 23 Natural Resource Districts, make sure that chemigation applicators and irrigation systems comply with Title 195 and the Nebraska Chemigation Act. The Agricultural Chemical Secondary Containment Program administers Title 198 -- Rules and Regulations Pertaining to Agricultural Chemical Containment, concerning secondary containment and loadout facilities for bulk liquid fertilizer and pesticide storage, as well as loading and rinsing activities of custom applicators.

### Livestock Waste Control Program

During FY2006, the Livestock Waste Management Act was amended in anticipation of federal rule changes resulting from a February 2005 decision by the U.S. Court of Appeals. The court ruling overturned parts of the earlier federal concentrated animal feeding operation (CAFO) rules. The Environmental Protection Agency (EPA) has announced it will be revising those rules, and revisions are expected to take effect in FY2007. The amendments to the state laws governing livestock waste control in Nebraska primarily will impact large concentrated animal feeding operations (CAFO). This may affect who will be required to obtain a permit and the subsequent operating and maintenance requirements of the permits.

The 2006 amended Livestock Waste Management Act provides for two separate effective dates. Certain provisions of the Act became effective March 16, 2006. The remaining portions of the amended Act will become effective as of December 1, 2006. In addition to protecting the state's water resources, the amended Act positions Nebraska favorably for expected future revisions to federal CAFO rules. Revisions to Title 130 implementing the amended Livestock Waste Management Act, are expected to be presented to the Environmental Quality Council during FY2007. Until the revised Title 130 is approved by the Council and the Governor, the Livestock Program will operate under the provisions of the amended Livestock Waste Management Act and the current Title 130 regulations, which became effective February 14, 2005.

### Livestock Waste Management Act Amendments

The following provisions of the Livestock Waste Management Act (LWMA) took effect as of March 16, 2006.

1. **CAFO Applications** – Eliminated the previous requirement that owners of all Large Concentrated Animal Feeding Operations must apply for a permit from the Department of Environmental Quality.
2. **Reinstatement of State Operating Permits** -- State Operating Permits that expired on December 31, 2005, pursuant to Title 130 regulations, may be reinstated upon the request of the former permittee and compliance with some specific requirements.
3. **Major Modifications** – Amended the requirements for submission of requests from animal feeding operations to modify their current permit or a previously submitted application for livestock waste control facilities.

The following statutory provisions will take effect December 1, 2006:

1. **Construction and Operating Permit** – Establishing a state permit allowing construction and operation of a livestock waste control facility. Construction approvals will no longer be issued. An operation may have this permit, as well as a NPDES permit.
2. **Annual Fees** – Clarifies the designation of operations subject to payment of an annual permit fee. Any operation with a NPDES permit and Large CAFOs with a Construction Approval or a Construction and Operating Permit, or a State Operating Permit, must submit an annual fee based upon the permitted number of livestock.
3. **Cold Water Class A Requirements** – Amended limitations on permitting livestock waste control facilities within a cold water class A stream watershed.

### **Livestock Waste Control Program Activities**

Livestock program staff conduct inspections of animal feeding operations, review permit applications, issue public notices, provide compliance assistance, recommend compliance actions, and draft permits for livestock waste control facilities statewide. In addition, field office personnel are assigned on a part-time basis to work with the livestock program, and other field office staff are available on an as-needed basis.

**Engineering** – The Agriculture Section engineers are responsible for ensuring livestock waste control facilities in the state are technologically capable of preventing livestock waste from entering waters of the state. In addition to reviewing new applications for construction approvals and NPDES permits, the Engineering Services Unit reviews applications for modifications and design changes; evaluates test results, and provides compliance assistance to applicants and technical advisors. During FY2006, the Section's engineers performed 751 reviews and compliance assistance activities. Of that total, the engineers reviewed 143 applications for Construction Approvals and 40 applications for National Pollutant Discharge Elimination System permits.

Engineering staff also were involved in drafting Title 130 regulatory amendments, administering the Chemigation and Secondary Containment programs, and participating in Homeland Security planning for the Agency.

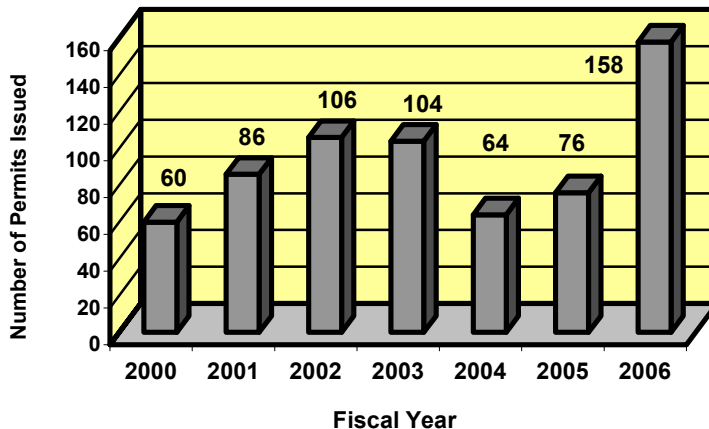
**Permits** – Animal feeding operations wanting to construct livestock waste control facilities are required to submit an application and receive approval from the Department prior to beginning construction. In FY2006, the number of construction approvals issued nearly doubled from FY2005 figures, with 158 construction approvals issued this fiscal year. Of this total, 134 were new construction approvals and 24 were modifications of existing approvals.



New state operating permits are no longer issued under the 2005 amendments to the Livestock Waste Management Act. In addition, state operating permits previously issued to Small and Medium animal feeding operations expired on December 31, 2005, according to department regulations. The 2006 amendments to the Livestock Waste Management Act, however, allow small and medium animal feeding operations the option to request reinstatement of their state operating permits.

During FY2006, existing state operating permits remained in effect for large animal feeding operations. Some of these operations are required to submit applications for coverage under the NPDES permit program. The federal deadline for these applications is July 31, 2007. During FY2006, 17 state operating permits were modified and six permits were transferred.

**Construction Permits/Approvals Issued  
FY2000 - FY2006**



Approximately 23% more applications from animal feeding operations were received in FY2006, compared to the FY2005 numbers. A total of 351 applications for construction approvals, National Pollutant Discharge Elimination System (NPDES) permits, major modification requests, and permit transfer requests were received in FY2006, compared to a total of 285 applications last year. Of the FY2006 total number, 45 applications were for major modifications and 24 were for permit transfers.

The number of NPDES applications received in FY2006 showed a substantial increase over the previous year. In FY2006, the Department received a total of 127 applications for NPDES General Permit coverage and 29 applications for individual NPDES permits for a total of 156 NPDES applications, compared to a total of 98 NPDES applications received in FY2005 – a nearly 60% increase.

The NPDES permit prohibits discharges to waters of the state, except as established in effluent limitations for the livestock waste control facility. Producers may submit an application for an individual NPDES permit or request coverage under the NPDES General Permit for Open Lot Livestock Operations.

In FY2006, no individual National Pollutant Discharge Elimination System permits were issued, since staff were in the process of developing individual NPDES permits that would comply with the new EPA CAFO rules. The Department granted coverage under the NPDES General Permit to 58 large open-lot concentrated animal feeding operations – a significant increase over the 31 operations issued coverage in FY2005. Of those 58 operations receiving NPDES coverage in FY2006, the majority (49 of the 58 operations) were receiving coverage under the General Permit for the first time. Seven open-lot CAFOs were modifying coverage of the existing operation and two were transferring the permit coverage. By the end of FY2006, 141 animal feeding operations were covered under the NPDES General Permit.

## Inspections

A total of 953 inspections were conducted during FY2006, slightly fewer than the 964 inspections conducted in FY2005. As in previous years, initial inspections represented the majority of the inspections conducted in FY2006, accounting for 47% of the total number of inspections. In FY2006, livestock program staff conducted more post-construction inspections, and fewer initial, complaint, and routine inspections than the previous year. During FY2006, large animal feeding operations were the focus of the routine inspections, accounting for three-quarters of the total number of routine inspections performed.

For the fourth consecutive year, more initial inspection requests were received than during the previous year. In FY2006, the Agriculture Section received 156 requests for initial inspections of new or expanding animal feeding operations, a 24% increase over the previous year's total of 123 requests received. The majority of the initial inspection requests (84 requests) came from medium animal feeding operations.

Program staff conducted approximately the same number of initial inspections of animal feeding operations in FY2006 as during the previous fiscal year -- 446 initial inspections compared to 460 in FY2005. Of that total, 160 initial inspections were of large animal feeding operations (AFOs), 211 were of medium AFOs, and 75 were of small AFOs.

Fewer complaints were received by the Agriculture Section this year -- 70 complaints received during FY2006 compared to 84 complaints last year. More than half of the complaint inspections were at large animal feeding operations.

General information about the Livestock Waste Control Program, fact sheets, forms, guidance documents, the NPDES General Permit, Title 130 regulations, and public notices of Intent to Issue or Deny Construction Approval for animal feeding operations are available on the Department's web site, [www.deq.state.ne.us](http://www.deq.state.ne.us).

## Chemigation Program

The Chemigation program is responsible for protecting the irrigation water source from contamination by fertilizer or pesticides, as established in the Nebraska Chemigation Act. When fertilizer or pesticides (i.e., fungicide, herbicide or insecticide) are being applied through an irrigation system, the Chemigation Program and Nebraska's 23 Natural Resource Districts (NRDs) work together to ensure that chemigation applicators and irrigation systems comply with the requirements of the Chemigation Act and Title 195 -- Rules and Regulations Pertaining to Chemigation.

The NRDs inspect and issue permits for the specific safety equipment that must be installed on the irrigation system. The program has been well received, with a high degree of compliance.

Chemigation Permits for chemigation sites are issued annually, and are reported to the Department on a calendar year basis, rather than by fiscal year. Since permitting began in 1987, the total number of annual permits issued initially followed an upward trend, but has leveled off in recent years. However, a moderate increase in the number of permits issued was seen in 2005 over the previous year, with 16,329 chemigation site permits issued in 2005, compared to 15,561 permits in 2004. During the first three quarters of calendar year 2006 (ending September 30, 2006), over 13,790 annual site permits were issued.

The Department certifies all chemigation applicators, who must be re-certified every four years. The records of applicator certifications also are kept and reported on a calendar year basis. To receive certification, the applicators must complete training and testing, which is provided by the University of Nebraska Cooperative Extension system. In 2005, 716 applicators were trained, tested and certified, bringing the current number of certified chemigation applicators to 4,033. Information about chemigation applicator training dates and certified applicators is available on the Department's web site, [www.deq.state.ne.us](http://www.deq.state.ne.us).

### **Agricultural Chemical Secondary Containment Program**

The Agricultural Chemical Secondary Containment Program administers Title 198 -- Rules and Regulations Pertaining to Agricultural Chemical Secondary Containment for commercial and private secondary containment and loadout facilities for bulk liquid fertilizer and pesticide storage. Title 198 also includes requirements for the loading and rinsing activities of custom applicators of liquid fertilizers and pesticides.

The regulations 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, including a management program.

The Department works with the Nebraska Department of Agriculture's Pesticide Program to identify sites not in compliance. In FY2006, the Program received seven complaints and one post-construction inspection deficiency report involving fertilizer or pesticide storage facilities. Of these seven complaints and the deficiency report, all seven complaints have been investigated. Two of the complaints have been closed and five complaint cases are pending, as is the deficiency revealed in the post-construction inspection.

Two cases had been pending at the end of FY2005. One of those two has been resolved, and compliance efforts are proceeding on the remaining case.

## Surface Water Assessment Programs

The Surface Water Unit collects physical, chemical, and biological water quality samples from streams and lakes, implements surface water improvement projects, and prepares surface water quality reports. Several monitoring programs collect stream and lake samples throughout the state; however, most monitoring is focused in two or three river basins each year in conjunction with a rotating basin monitoring strategy. Targeting resources in this manner improves the 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 five-year cycle, all 13 river basins in the state are intensively monitored. 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. The current five-year rotating basin monitoring cycle is:

2006 --Middle Platte, North Platte, and South Platte river basins;

2007 --Big Blue, Little Blue and Republican river basins;

2008 --Loup, Niobrara, and White River-Hat Creek river basins;

2009 --Lower Platte and Nemaha river basins; and

2010 --Elkhorn and Missouri Tributaries river basins.

In 2001, NDEQ completed a comprehensive study on water quality monitoring in response to LB 1234, and began implementing comprehensive, integrated surface water monitoring programs throughout the state by working with additional monitoring partners to collect water samples. These programs use contractual and voluntary monitoring relationships to collect samples, which has significantly improved the efficiency and effectiveness of NDEQ's statewide monitoring networks. Current monitoring partners include: eight Natural Resources District offices (Lower Big Blue, Lower Elkhorn, Lower Platte North, Middle Niobrara, Nemaha, South Platte, North Platte, and Twin Platte); Nebraska Public Power District; U.S. Army Corps of Engineers; Nebraska Game and Park Commission; University of Nebraska-Lincoln; Kansas State University; Central District Health Department and U.S. Geological Survey.

A description of surface water implementation, monitoring, and assessment programs conducted during 2006 follows.

**Big Blue River/Tuttle Creek Lake Interstate Targeted Watersheds Grant Project** --- In April 2006, the U.S. EPA awarded an \$810,000 Targeted Watersheds Grant to NDEQ on behalf of the Big Blue River/Tuttle Creek Lake Watershed Partners. This was one of 12 grants awarded nationally to outstanding watershed coalitions as part of the EPA's third round of Targeted Watersheds grants. This watershed partnership involves a wide array of agricultural and water quality organizations in Nebraska and Kansas that have been working together for many years to coordinate monitoring, educational outreach, installation of Best Management Practices (BMPs), and improve water quality in the Big Blue River Basin and Tuttle Creek Lake. Tuttle Creek Lake is a large impoundment on the lower Big Blue River near Manhattan, Kansas, but three-fourths of the lake's drainage area is in Nebraska. This 3-year project will address multi-jurisdictional water quality problems involving excessive runoff of sediment, nutrients, herbicides, and bacteria. Most project activities will be focused in a critical four-county area near the Nebraska-Kansas state line. TWG funds will be used to install no-till farming systems, riparian buffer strips, and other conservation measures. Market-based incentives will be used to encourage and support landowner adoption of best management practices.

**Basin Rotation Monitoring Program** --- The Basin Rotation Monitoring Program targets two to three river basins each year for intensive monitoring. In 2006, a total of 39 stream segments and 12 lake beaches in the Middle, North, and South Platte basins were sampled weekly from April through September for a variety of physical, chemical, and biological constituents to document existing water quality conditions, identify water quality problems, identify pollutant(s) of concern and their sources, and estimate pollutant loadings. Lake beaches and recreation-designated streams were sampled weekly for E. coli bacteria to assess the suitability of water quality for primary contact recreation activities such as swimming, skiing, tubing, rafting, and canoeing. In 2005, toxic algae (microcystin) sampling was combined with lake beach monitoring throughout the state to more effectively use state resources. This program was expanded in 2006 from 38 to 42 lake beaches. Weekly updates on the suitability of lake water quality for recreation activities were reported on the NDEQ's website. In 2006, over 1,000 lake beach samples were analyzed for E. coli bacteria and microcystins, and an additional 900 stream samples were analyzed for E. coli bacteria and other physical/chemical parameters. Several monitoring partners assisted NDEQ in collecting these stream and lake samples.

**Ambient Stream Monitoring Program** --- This program has a network of 98 fixed stations located on mainstem and tributary streams across the state. The primary objectives are to provide information on the status and trends of water quality in streams within each of the state's 13 river basins and link assessments of status and trends with natural and human factors that affect water quality. Fifty-eight of the 98 sites are located on mainstem streams. Ecoregion and land use considerations were used in selecting many of the stream locations. This network was expanded from 42 sites in 2001 to its current total of 98 sites in 2002. In 2004, sampling frequency was increased from monthly to bimonthly (twice a month) from April through September to better represent water quality conditions during runoff events. Monthly sampling is conducted from October through March. Samples are analyzed for traditional chemical and physical parameters. Cost-cutting measures were implemented in 2006, including many heavy metals analyses, herbicide monitoring from October through March, and sampling of coldwater fish communities. During 2006, a total of 1,764 water samples were collected for this program.

**Fish Tissue Monitoring Program** --- A total of 99 fish tissue samples were collected from 60 streams and lakes across Nebraska for analysis of toxic pollutants during 2006. This information is used to assess toxic pollutant trends, identify potential problem areas, and to issue fish consumption advisories. Based on fish tissue information collected through 2005, fish consumption advisories will be issued or reissued for 44 sites in 2006, including 20 streams or canals and 24 lakes. New advisories will be issued for Verdon Lake near Verdon and Wagon Train Lake near Hickman (mercury in largemouth bass) and the Little Nemaha River near Auburn (PCBs and mercury in channel catfish). Advisories are based on an average consumption rate of eight ounces of fish per week for an average-sized adult over a 71-year lifetime that would result in an additional risk of one in 10,000 for cancer or other health problems. An immediate health risk is unlikely from an occasional meal of fish from waters where fish consumption advisories have been issued; however, in order to reduce health risks that may result from long-term consumption, it is recommended that eating fish from advisory waters not exceed an average of eight ounces of fish per week. The primary contaminants of concern in Nebraska fish are PCBs, mercury and dieldrin.

**Stream Biological Monitoring Program** --- This program is used to evaluate the health of aquatic life populations and involves a unique randomized sample design that allows water quality status and trend assessments to be determined with a known level of confidence. During 2006, a total of 32 stream sites were sampled in the Middle, North, and South Platte river basins. Eight stream sites were dry and could not be sampled. Since 1994, this program has been conducted using "state-of-the-art" fish, macroinvertebrate, and habitat sampling protocols and ecoregion-based reference sites.

Sampling is conducted in conjunction with the basin rotation monitoring strategy. Data from 1997 to 2001 were recently assessed and used to revise the biological criteria used in evaluating the health of aquatic life populations in Nebraska streams. From 1983-1993, 80-100 stream biological samples were collected annually using a less regimented approach. The current approach allows evaluations of aquatic life health to be made with greater confidence even though fewer samples are collected. A report entitled "Nebraska Stream Classification Using Fish, Macroinvertebrates, Habitat, and Chemistry Evaluations from R-EMAP Data 1997-2001" was completed in 2005.

**Ambient Lake Monitoring Program** --- Ambient lake monitoring is currently conducted on 45 lakes across the state. Monitoring involves the collection of monthly water samples from May through September. These data are used to document existing water quality conditions, evaluate long-term trends, design watershed and lake restoration/protection projects, and evaluate project effectiveness. Monitoring focuses on nutrients, sediment, pesticides, heavy metals, dissolved oxygen, pH, temperature, conductivity, and water clarity. In 2006, a total of 255 samples were collected at deep water locations and an additional 190 profiles were collected from mid-lake locations.

**Lake Inlet Streams Monitoring Program** --- During 2006, 12 lake inlet streams were sampled during periods of significant precipitation to provide information on nutrient, sediment, and pesticide loadings to lakes during runoff events.

**Toxic Algae Monitoring Program** --- This program was initiated in 2004 following the deaths of several dogs after they drank water from lakes with blue-green algae blooms. Microcystins, the most common toxins released by blue-green algae, are analyzed each week during the recreation season from May through September at select lakes to determine if unacceptable risks to the public exist and if health alerts should be issued. Especially targeted are public lakes with designated swimming beaches. Samples are analyzed using procedures which provide a quick-turnaround time and allows public health alerts to be issued prior to each weekend's recreation activities. Microcystin sampling was combined with lake beach monitoring at lakes throughout the state to more effectively use state resources. During 2006, NDEQ analyzed over 1,000 samples for total microcystins on 52 different lakes. Based on the results of these data, health alerts were issued on six different lakes. The amount of time that the six lakes were on alert ranged from two weeks to 14 weeks. Toxic algae results and health alerts are listed on the NDEQ's web site ([www.deq.state.ne.us](http://www.deq.state.ne.us)).

Several special studies are being conducted to identify cause and effect relationships of toxic algae blooms and the extent of toxic algae problems in Nebraska. NDEQ contracted with UNL to conduct aircraft spectral imagery of lakes using remote sensing technology to identify and quantify concentrations of toxic algae and evaluate the potential of this technology for early detection of toxic algae problems. This information will be used to develop a predictive model for identifying lakes with a high potential for toxic algae blooms. While this data is presently under review, initial results are promising. Fish fillets and organs from multiple fish species at the three lakes, Carter Lake, Pawnee Lake, and Fremont Lake #20, which have most frequently been on health alerts for toxic algae, were analyzed for concentrations of total microcystins and Microcystin LR in 2006. Detectable concentrations of both parameters were measured in the fillets and organs of 3 different fish species from Fremont Lake #20, but not in fish from the other two lakes. Low levels of microcystins were also measured in groundwater monitoring wells installed near Fremont Lake #20. Analysis of individual Microcystin variants, neurotoxins, and nutrients, and identification and quantification of zooplankton and algae species will be conducted at several lakes during the next two years to investigate additional cause and effect relationships for toxic algae blooms.

**Fish Kill and Citizen Complaint Investigations** --- A total of 21 fish kills and 11 citizen complaints were reported between July 1, 2005 and June 30, 2006. Most fish kills were attributed to low dissolved oxygen levels, low flows, temperature stress, disease/parasites, or illegal discharges. On-site investigations were conducted, as needed, to document existing water quality conditions, surface water quality standards violations, and identify pollution sources and responsible parties.

**Integrated Report** --- Beginning in 2004, and every two years thereafter, states are required to prepare a biennial water quality report called the Integrated Report, which is a combination of the Section 305(b) and Section 303(d) reporting requirements of the Clean Water Act. 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 2006 Integrated Report is available on NDEQ's web site ([www.deq.state.ne.us](http://www.deq.state.ne.us)).

**Nebraska Surface Water Quality Monitoring Report** --- A reader-friendly version of the Integrated Report called the Nebraska Surface Water Quality Monitoring Report was developed in 2006. This report is available on the NDEQ's web site. Future enhancements to this report will include more comprehensive trend assessments and in-depth examinations of surface water quality issues and special studies.

## **Groundwater Assessment Programs**

### **Groundwater Quality Monitoring Report**

Legislation passed in 2001 directs 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. Statistics and maps showing nitrate-nitrogen groundwater monitoring results as well as four of the 42 pesticides sampled 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 Nebraska Department of Environmental Quality using federal funding. These data are accessible to the public on the Nebraska Department of Natural Resources web site, [www.dnr.state.ne.us](http://www.dnr.state.ne.us).

### **Hydrogeologic Studies and Reviews**

The Groundwater Unit is responsible for hydrogeologic review of various Department 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 and surface petroleum spills, underground injection control, wastewater treatment facilities, septic systems, NPDES permits, livestock waste control facilities, the Natural Resources Districts' Groundwater Management Plans, and others.

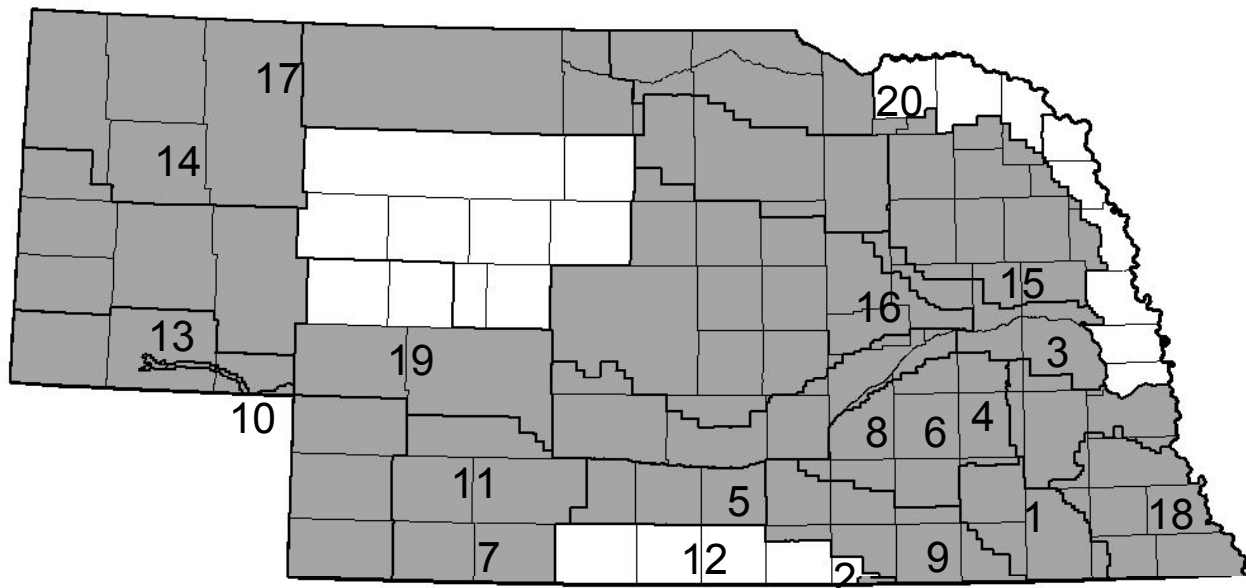
In addition, the Unit performs reviews if a situation does not fall under another agency program and is of environmental significance. Unit personnel continue to take responsibility under Title 118 – Groundwater Quality Standards and Use Classification for many site investigations and have sampled and 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 Agency carries out detailed field studies to collect groundwater data, assesses the data, and determines whether a correlation exists between land use practices and any nonpoint contamination trends. The Department's conclusions and recommendations are presented at public hearings during which public comments on the study are also obtained. The Director makes a determination on whether or not to designate the study area as a Groundwater Management Area. The staff works closely with the Natural Resources District(s) (NRDs) within whose boundary the area is located throughout the investigation, designation and implementation stages. The NRDs are responsible for implementation of many aspects of this program. In fact, NRDs can designate Groundwater Management Areas acting on their own authority. In addition to the three NDEQ-designated areas, 20 NRDs have designated GWMA's within their jurisdiction. However, if an NRD does not implement a Groundwater Management Area, the Department has the responsibility of implementation. The Department reviews and comments on all proposed GWMA rules and regulations prior to public notice. The following map shows NDEQ study areas (numbers) and existing GWMA's (shaded areas).



### Progress in the Groundwater Management Area Program



**NDEQ GWMA Studies**

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 1. Beatrice/DeWitt, 1988          | 11. N Middle Republican, 1995        |
| 2. Superior, 1988                 | 12. Lower Republican, 1996 – 97      |
| 3. Fremont, 1988                  | 13. E. Cheyenne Co., 1996            |
| 4. E. Upper Big Blue, 1989        | 14. Box Butte Co./Mirage Flats, 1998 |
| 5. Wilcox/Hildreth, 1989          | 15. S. Lower Elkhorn, 1999           |
| 6. York/Polk Co., 1990            | 16. E. Lower Loup, 2000              |
| 7. Red Willow/Hitchcock Co., 1990 | 17. E. Sheridan Co., 2001            |
| 8. W. Upper Big Blue, 1991        | 18. Humboldt, 2001                   |
| 9. E Little Blue, 1992 – 94       | 19. Keith-Lincoln Co., 2002 – 03     |
| 10. Deuel Co., 1992               | 20. Bazile Triangle, 2004            |

### 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 is a category that is prohibited and has never been allowed in Nebraska.

One Class I injection well currently operates within the state. The permit for this well is issued to Crow Butte Resources, Inc. for injection of wastewater below the lowermost underground source of drinking water. 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, Inc. operates 3269 Class III wells as of October 1, 2006.

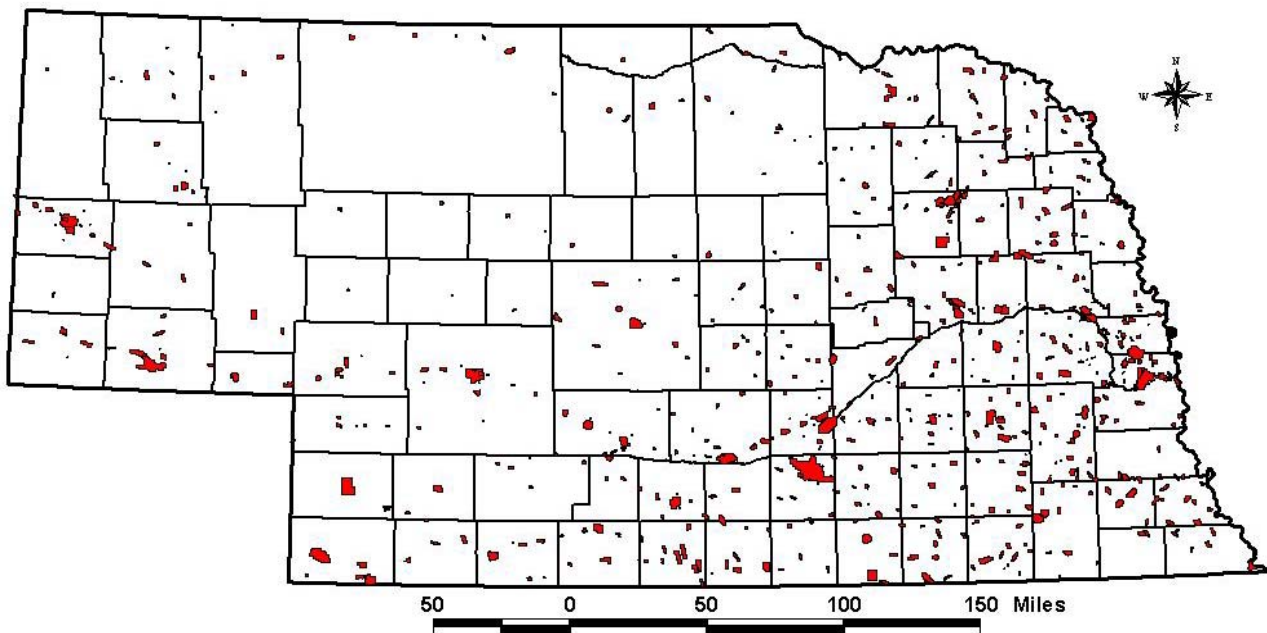
Injection wells not included in the other specific classes are considered to be Class V wells. The EQC revised Title 122 – Rules and Regulations for Underground Injections and Mineral Production Wells in 2002 prohibiting the following types of Class V wells: agricultural drainage wells, untreated

sewage waste disposal wells, cesspools, radioactive waste disposal wells, motor vehicle waste disposal wells, and abandoned drinking water wells used for disposal of waste. The Underground Injection Control program is working to close these types of existing waste disposal systems.

### 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 as of October 1, 2004. 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. Sixty-eight community water supplies have approved Wellhead Protection Plans.

## Wellhead Protection Areas, October 1, 2006



## 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 form the basis of water quality protection for all surface water quality programs conducted by the department. The federal Clean Water Act specifies that States review their water quality standards and revise where appropriate once every three years. NDEQ's latest triennial review was completed in FY2006 with the final proposed revisions being heard and approved by the Environmental Quality Council on December 2, 2005.

Most of this work involved two major issues. The first is the development of nutrient criteria for lakes and impounded waters. These criteria define acceptable levels of nitrogen, phosphorus and chlorophyll in lakes and impounded waters. The criteria are extremely important in light of increasing concern over toxic algae in Nebraska lakes. The second major effort was to develop use attainability analyses for the primary contact recreation use. EPA had determined that previous classifications of this use were not according to the intent of the Clean Water Act and that NDEQ needed to revise its classifications for this use. An entirely new protocol for determining which streams would qualify under use attainability analyses to not have the primary contact recreation designated use was developed during the previous year. All streams were analyzed with this protocol and streams needing a different recreational classification were changed in these revisions.

The Governor approved the new regulations and they were filed with the Secretary of State on July 31, 2006. They are available on the department's web page at [www.deq.state.ne.us](http://www.deq.state.ne.us). It should be noted that although these revisions are now official state regulations, the EPA must also approve them for use in federal Clean Water Act programs. The department has requested approval of the new regulations but EPA has yet to act on this request.

In addition to developing the standards, the Planning Unit develops and implements procedures for applying the standards to surface water quality programs.

### Section 401 Water Quality Certification

The Planning Unit administers the Section 401 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 state and determines whether the proposed activity complies with Title 117 – 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. Six hundred thirty-seven Section 404 permit reviews were conducted by the unit during FY2006.

On January 9, 2001 the U.S. Supreme Court issued a decision in the matter of Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178. The court decision eliminated the Corp's regulatory jurisdiction over isolated, non-navigable intrastate waters where the only link to interstate commerce was the use of the waters by migratory birds. Therefore no permit or other authorization by the Corps of Engineers is required for projects that might impact waters meeting

those criteria. However, these waters of the state are still under the authority of the Department of Environmental Quality, because isolated wetlands are included in Title 117.

Although the department has no permitting mechanism to authorize projects in advance of their implementation, procedures have been developed to assist project sponsors who wish to avoid violating state water quality standards and potential enforcement actions. To maintain consistency between how NDEQ treats projects involving wetlands impacted by the court ruling and those proposed for jurisdictional wetlands, a series of checklists was developed. The checklists enable project sponsors to know what information they must provide, and allow NDEQ to deliver timely and consistent decisions on these wetlands. They also enable documentation of the decision-making process for each project. Project sponsors are encouraged to contact NDEQ before implementing their project so that the plans can be discussed in light of Title 117 requirements.

### **Impaired Waters and Total Maximum Daily Loads (TMDLs)**

The Federal Clean Water Act requires states to prepare a list of impaired surface waters. These are waters that do not support the assigned beneficial uses as listed in Title 117. 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.

Similar to 2004 the Department prepared a Surface Water Quality Integrated Report, which is a combined Section 303(d) list and Section 305(b) report. Integration of these required list and report provides the general public with a comprehensive summary of state and national water quality status. The report was finalized and submitted to EPA in May 2006.

During FY2006, TMDLs were completed for identified impaired waters in the Loup, Niobrara and White-Hat River Basins and Iron Horse Trail Lake near DuBois, NE. The TMDLs were submitted to EPA Region 7 and with approval being received in January 2006. Along with these, TMDLs have been initiated for Lake Ogallala, near Ogallala, NE and the Lower Platte River basin. As well, TMDLs have been drafted for Carter Lake, near Omaha by the combined effort of, NDEQ, the State of Iowa Department of Natural Resources and EPA Region 7.

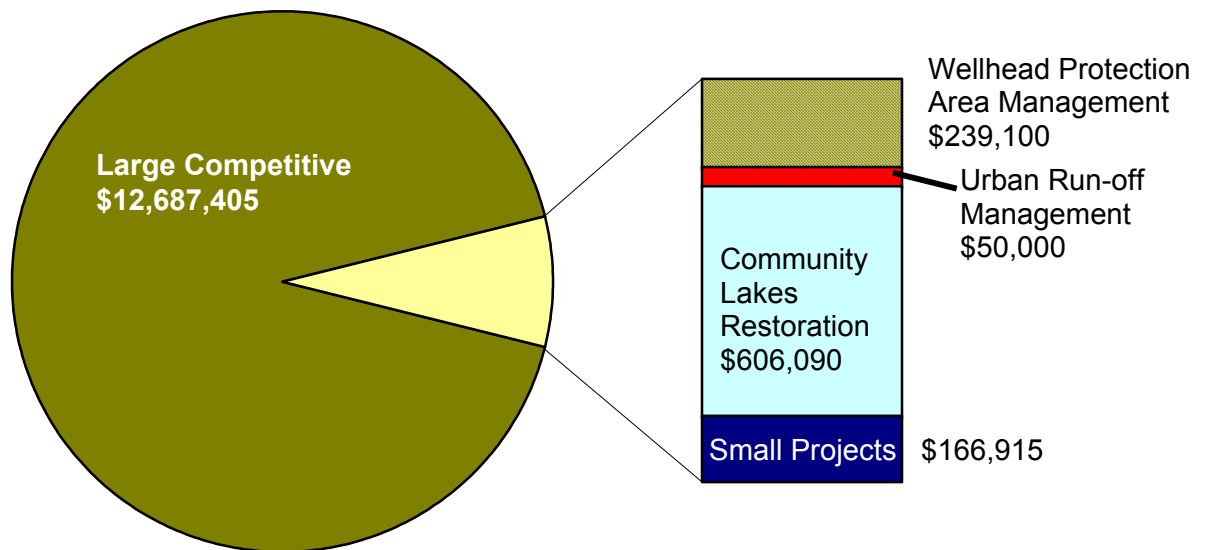
### **Nonpoint Source Management Program**

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 (CWA) and involves a multitude of federal, state and local agencies and organizations.

Through this program, the department initiated major shifts in program activities, including increased emphasis on watershed and groundwater area management planning, targeting of 303(d)-listed impaired waters, community participation in project development and implementation, and installation of management practices in smaller areas of manageable size. Support for local awareness and demonstration projects has been reduced. Prioritization of eligible projects and activities will be refined.

Major components of the nonpoint source management program include program administration, nonpoint source monitoring and assessment, and implementation of nonpoint source pollution management projects through Section 319 grant funding. 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. Currently identified 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 2000-2015.” Nonpoint source monitoring activities conducted during 2006 included investigative water quality evaluations, detailed watershed assessments, and effectiveness evaluations of implemented nonpoint source management measures.

**Current Ongoing CWA 319 Projects by Category**



The Nonpoint Source Management Program provides Section 319 grants to local sponsors of eligible projects in the following categories: 1) Large Competitive Projects (generally <\$300,000), 2) Small Projects Assistance (<\$15,000), 3) Community Lakes Restoration Assistance, 4) Urban Run-off Management Assistance (<\$75,000) and 5) Wellhead Protection Area Management Assistance (negotiated). During 2006, 74 projects were ongoing among the five grant categories. These included 58 large projects totaling \$12,687,405, nine small projects (\$166,915), three community lakes projects (\$606,090), one urban run-off management projects (\$50,000) and three wellhead area management assistance projects (\$239,100).

New projects funded by the Department during 2006 included eight large projects totaling \$1,815,755, four small projects (\$47,995), three new community lake projects (\$606,090), no new urban run-off management projects and no new wellhead area management assistance projects. A total of 137 large projects have been funded through Section 319 grants since the beginning of the program in

1990. Of these 137 projects, 75 have addressed surface water, 40 have addressed groundwater and 22 have focused on both surface water and groundwater problems.

### **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 FY2004, approximately \$200,000 per year has been set-aside from the Drinking Water State Revolving Fund (DWSRF) to finance source water protection projects statewide. Grants are given to units of government, education institutions, and non-profit organizations to carry out projects that will help protect the state's drinking water sources. Ten grants were awarded in both fiscal years 2004 and 2005, 11 grants were awarded for FY2006, and five for FY2007. Most source water protection activities that address drinking water quality, quantity, security, or education are eligible for grant funding.

### **Continuing Planning Process (CPP)**

Each state is required to establish and maintain a continuing planning process under Section 303(e) of the federal Clean Water Act. The department's concept of the Continuing Planning Process is that it should document processes and procedures used to make decisions relating to the Water Quality Division mission.

### **Water Quality Data Handling and Storage**

The department 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/](http://www.epa.gov/storet/). During FY2005-2006, the department continues 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.

The public can now get access to the bacteria monitoring data and blue-green algae levels for lakes on the DEQ website. The monitoring results are updated weekly during the recreational season.

## Water Permitting Programs

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

- 1) The National Pollutant Discharge Elimination System (NPDES), and
- 2) The Nebraska Pretreatment Program (NPP).

Activities include issuing permits to control pollutants in wastewater discharges, and monitoring compliance with the permits and other applicable regulatory requirements of the programs.

The NPDES program is responsible for controlling and regulating discharges of pollutants to waters of the State so as to maintain and protect the water quality of Nebraska's streams, lakes and rivers. The Pretreatment Program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industries.

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.

The Department 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 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 titled "NPDES Discharge Authorizations" shows the distribution of permits issued to various types of NPDES dischargers, except Livestock. The "General Permits" category includes discharge authorizations issued to groundwater remediation sites, storm water discharges, and dewatering/hydrostatic testing.

### NPDES Permits

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.

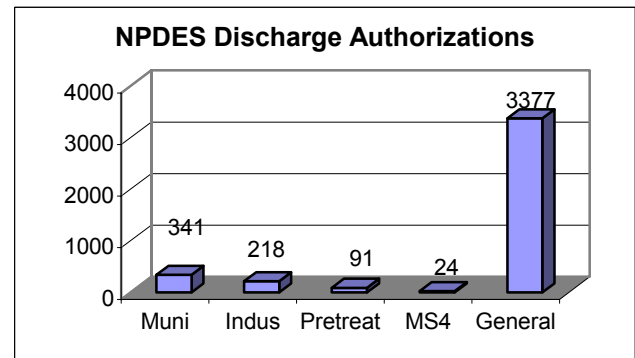
The permit development process involves identifying the pollutants of concern, and then developing permit limits based upon the more stringent of either technology based standards or water quality based standards. Technology based standards reflect effluent quality that can be achieved

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 and dewatering, 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. A small MS4 state wide permit was issued January 1, 2006, and currently covers 10 cities. Another 12 urbanized areas were permitted in 2005. The cities of Lincoln and Omaha were permitted in 2002 and 2003, respectively, bringing the total number of MS4 permittees to 24. Both the Construction Storm Water General Permit and the Industrial Storm Water General Permit will be reissued in 2007.

There are 3377 active facilities provided discharge authority under general permits and 650 facilities with discharge authorizations under individual permits (not including stormwater permits). The table titled "NPDES Discharge Authorizations" provides a summary of this information. The general permits include 2059 construction storm water, 76 dewatering/hydrostatic testing, 1141 industrial storm water, and 101 petroleum remediation sites.



### Municipal and Industrial Facilities

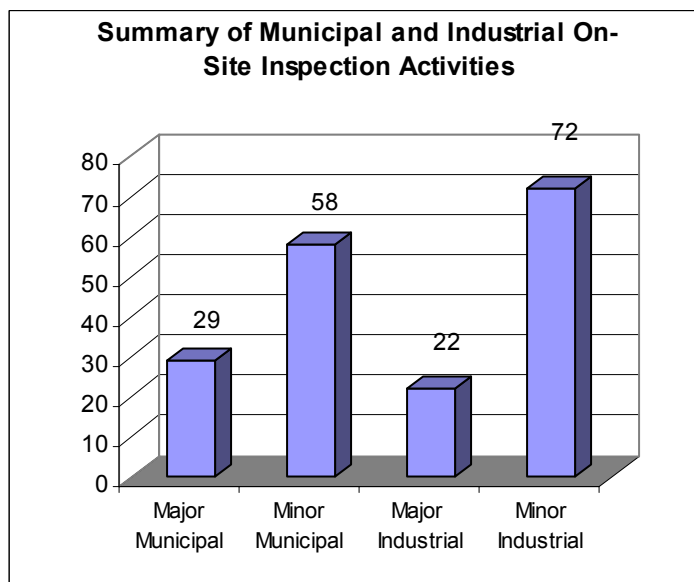
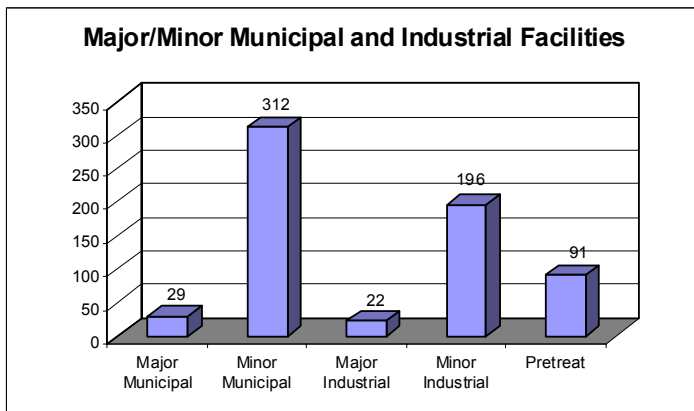
Industrial and municipal facilities are both grouped as major or minor facilities based upon their size and/or their potential to impact the receiving stream. The chart titled "Major/Minor Municipal and Industrial Facilities" provides a numeric break down of these types of facilities.

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 181 total inspections in Fiscal Year 2006. During effluent monitoring inspections effluent samples are collected and analyzed by the Department to compare with self-monitoring results. Facilities targeted 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 Permit/Compliance System (PCS) computer database. This database is used to generate facility reports and review facility compliance history.



**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 now lower the threshold for coverage of construction sites from five acres or more to one acre or more. 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 and the Omaha MS4 Permit was issued on October 1, 2003. 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 has been issued effective August 1, 2004. The Dakota County MS4 permit has been 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 the new general permit. These new 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 Department has entered into a Memorandum of Understanding with the City of Omaha to better coordinate the NPDES construction storm water program with the City's Grading Permit Program. The Department also maintains a similar working arrangement with the City of Lincoln and Lower Platte South NRD. As a result, Omaha, Lincoln, the Lower Platte South NRD and the Department share compliance and permit application review responsibilities. This sharing of responsibilities continues to provide mutual benefits from both an environmental and a resource management perspective. This responsibility sharing is necessary; construction permitting alone has jumped four-fold since Phase II was implemented. The Department will approach future MS4 authorities with the help of the NRDs that include the MS4 areas.

Also available this year is nearly \$2.5 million in grant funds under Legislative Bill 1226 for any of the MS4 permittees. This grant can be applied to the development and 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. The grant will be distributed by the end of calendar year 2006.

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. Both of these permits will be reissued in the next fiscal year.

### **Combined Sewer Overflows**

The Combined Sewer Overflow (CSO) program addresses those municipalities that have combined storm water and wastewater sewer systems. These systems were built prior to the existence of secondary sanitary wastewater disposal standards. When storm or snow run-off is occurring these systems may become hydraulically overloaded and excess water flows are bypassed. When bypasses occur, untreated wastewater is discharged into the receiving stream.

The cities of Omaha and Plattsmouth have combined sewers that are subject to storm-induced bypasses. Omaha's CSO and NPDES discharge permits were issued during FY03. Plattsmouth's WWTF and CSO discharge permit was issued October 1, 2005. The long-term goal is total elimination of combined sewers in these locations, but this is a costly proposition. Federal regulations call for implementation of certain initial control measures and a long-term plan to reduce CSO discharge impacts.

### **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 345 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 Kansas City, KS, however, the Department regulates the disposal of municipal and industrial sludges, both through the use of NPDES permit requirements and through the application of the NDEQ Title 132 - Integrated Solid Waste Management Regulations.

### **Nebraska Pretreatment Program Permits**

The Nebraska Pretreatment Program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industrial dischargers. NDEQ Title 127 - Rules and Regulations Governing the Nebraska Pretreatment Program was consolidated with Title 119 and Title 121 this year. These pretreatment regulations can now be 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 PCS to facilitate compliance review activities.

Although the Pretreatment Program is really a subprogram of the NPDES program, administration of this program requires considerably 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 to 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.

### **Amended NDEQ Title 119**

Title 119 -- Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System was amended last year and became effective on May 16, 2005. It was previously amended in 1992. The Department has updated Title 119 to more closely parallel the federal NPDES program and to incorporate new federal requirements that have been adopted since Title 119 was previously amended.

The amended Title 119 includes requirements for storm water permitting under the federal Phase II Storm Water Rule and includes Concentrated Animal Feeding Operation (CAFO) Rule Public Participation Process relating to permit issuance, public notice and participation that are applicable to all NPDES permits.

In addition, the amended Title 119 included the following major changes:

1. Inclusion of language pertaining to Section 316(b) of the Federal Clean Water Act. This rule protects fish caught (impinged) on screens and/or pulled through (entrained) in the cooling water intakes for power plants.
2. Authorization by Rule for irrigation with treated domestic wastewater.
3. Exclusions of discharges from geothermal, non re-circulating single family household heat pumps, agricultural tile drains and discharges to a Publicly Owned Treatment Works from swimming pools.
4. Inclusion of new language consistent with the federal 503 sludge language to clearly address the proper handling of sewage sludge (biosolids).
5. Inclusion of new effluent guidelines for meat and poultry, and for pharmaceuticals point source categories.
6. Consolidation and incorporation of the requirements for both NDEQ Title 121 –Effluent Guidelines and Standards and Title 127 – Rules and Regulations Governing the Nebraska Pretreatment Program.

## **Wastewater Engineering Management**

The Wastewater Section administers the Department's construction permit program for new wastewater treatment facilities and collection systems built in the state. Construction permits are issued after Section engineers complete a technical review of the construction plans and specifications. These reviews assure that wastewater facilities are correctly designed to protect the public health and the environment from the effects of improperly treated wastewater. In addition, the section maintains and updates state regulations for the operation and maintenance of wastewater facilities and establishes design standards for wastewater facilities.

For FY06, a total of 267 construction permits were issued for wastewater facilities in Nebraska. Considerable time was spent last year meeting with representatives of industrial wastewater treatment facilities to assure that their wastewater is properly treated and discharged.

For several years the section had been preparing a revision to NDEQ Title 123, Rules and Regulations for the Design, Operation and Maintenance of Wastewater Works. The revised Title completed the state approval process and became effective on July 26, 2006.

### **104(g) Assistance Program**

The 104(g) Assistance Program, which has been administered by NDEQ since 1983, provides one-on-one training to wastewater treatment facility operators. The program is funded by an EPA grant through Sec. 104(g)(1) of the Clean Water Act. The Department received \$24,875 in grants and matched it with \$8,292 of state funds in FY06. This training is focused on assisting the operator to improve operation and maintenance of wastewater treatment plants.

The 104(g) assistance program for wastewater treatment facility operators provided diagnostic evaluation, initiated training, or continued assistance at Davey, Ceresco, Hebron, Gothenburg, Friend, Pender, Staplehurst, Uehling, and Table Rock. Program assistance was completed this year at Hawaiian Village (SID 97 in Sarpy County), Wisner, Wilbur, Elmwood, and Clear Lake. Generally, training is completed at facilities in a two-year period. Presenting the findings and accomplishments of the training to the Village Boards or City Councils or other appropriate body completes the training assistance for facilities. The training program, paired with dedicated efforts from the communities involved, has yielded positive results.

### **On-Site Wastewater Treatment Facilities**

The on-site wastewater program covers septic tanks, holding tanks, small lagoons, and other engineered wastewater treatment systems typically not connected to a municipal wastewater treatment system. The majority of these systems are for single households, although there are multiple houses, churches, camps, and establishments such as restaurants that use on-site systems. The program focuses on protecting surface and groundwater in the area of proposed on-site systems through the certification of on-site professionals, review of plans for subdivision development, and review of plans and permitting of systems in problem areas or systems with non-domestic wastes. Certification of on-site professionals covers installation, inspection, maintenance, and pumping of on-site systems. Subdivision review requirements apply when on-site systems will be used and any proposed lots will have less than three acres suitable for building.

The program staff work to assure that the design, installation, modification, repair, and maintenance of on-site wastewater systems is performed by qualified, competent, and certified professionals who are familiar with Title 124 – Rules and Regulations for the Design, Operation and Maintenance of On-Site Wastewater Treatment Systems, and proper practices of their trade. The Private On-site Wastewater Treatment System Contractors Certification and System Registration Act (Act) passed in 2003 required that anyone doing work associated with on-site wastewater systems be certified by the State of Nebraska. The Act provided for the registration of all on-site wastewater systems constructed, reconstructed, altered, or modified. The law also provided for certification and system registration fees to support the program.

A total of 747 temporary provisional certifications were issued in 2004 and 2005, and all of these certificates expired at the end of 2005. A certification by examination is required for professionals to obtain certification for the 2006 – 2007 certification cycle and a total of 12 hours of approved continuing education is required to maintain the certification by exam for the subsequent two-year certification cycle. Examinations for the certification by exam began in July of 2005. The Department has held 53 exam sessions and administered 1,062 exams, with a total of 667 individuals certified by exam through September 2006. A number of these individuals are certified in multiple categories.

The result of the registration requirement is a statewide inventory of on-site systems. This is the first level of management under EPA's voluntary "Guidelines for the Management of On-site/Decentralized Wastewater Systems." A total of 1,112 on-site systems were registered in 2004, with 1,534 systems registered in 2005, and an additional 1,024 systems registered through September, 2006.

NDEQ has cooperative agreements with several local governmental agencies to help implement and coordinate the program in their jurisdictions. Nebraska Health and Human Services System personnel also routinely work cooperatively with NDEQ to resolve health related on-site wastewater handling issues. NDEQ provides information to the public, industry practitioners, and local governments on the regulations for new on-site systems through telephone calls, email, direct mail, meetings, and education seminars. Staff meets with local government officials and developers to discuss subdivision review requirements, necessary before any construction, and waste management alternatives for subdivisions and housing developments located outside a municipal sewer system.

The Private On-site Wastewater Treatment System Advisory Committee (OWAC) advises the Department on administration of the Act and proposed rules and regulations. The latest changes needed to implement examination and continuing education requirements became effective May 15, 2005. Additional changes are being proposed to revise the fee schedule to increase fees so that all direct and indirect costs of administering the program are covered, as required by the Act. Other changes to the regulations are being discussed with the OWAC. These would provide for endorsements for special activities or procedures not currently identified in the regulations.

The regulations set minimum design standards for all on-site wastewater treatment systems and include an Authorization by Rule to allow the installation of the standardized conforming on-site systems by a certified professional and subsequent operation without a construction or operating permit. These standard conforming systems constitute the vast majority of all new on-site systems. This allows the Department more time to focus resources on the certification of qualified professionals, education, complaint response, work with local governmental entities to address on-site wastewater issues, review of proposed subdivision developments, and review of permit applications, which may include large systems or systems that receive non-domestic wastes.

The program also reviews permit applications for systems that do not meet requirements for Authorization by Rule. A total of 59 permit applications were received in 2005, and 29 were received from January through September of 2006. A total of 25 applications for subdivision review and approval were received in 2005, with an additional 11 received from January through September of 2006.

Program staff work with many other organizations, including local health offices, county and city planning and zoning, the Nebraska On-site Wastewater Association (NOWWA), the Nebraska On-site Wastewater Task Force, UNL Cooperative Extension, and the Groundwater Foundation to educate the public about the importance of proper installation and maintenance of on-site wastewater systems and to improve the knowledge and skills of the various practitioners who install and maintain on-site systems. NOWWA has held annual conferences and produced other training seminars since its inception in March 2001. The Department continues to work with UNL Cooperative Extension to help UNL improve the training program implemented in the summer of 2005 and continue its delivery.

### **Wastewater Treatment Facility Operator Training and Certification Program**

Well-trained and competent 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 the owner's financial investment can be protected by proper operation and maintenance programs. To accomplish this, the Wastewater Treatment Facility Operator Training and Certification Program was established.

This program administers certification exams to new wastewater operators and issues certification renewals for operators who have obtained the necessary continuing education. Staff will monitor and ensure compliance of those facilities that are required to have certified operators. At this time, the wastewater operator training certification program has 832 certified operators with municipal certificates and 54 operators with industrial certificates.

In calendar year 2006, the Department is providing four, five-day classroom training workshops for operators and six testing opportunities. For 2007, the Department intends to provide four regular training sessions and six examinations.

Over the past three years the Department has worked with operators of industrial wastewater treatment facilities to develop training sessions and regulations for mandatory certification of industrial operators. This effort has resulted in the revision of Title 197 to include mandatory certification of industrial operators. Training and testing of industrial operators will continue in FY07.

**Financial Assistance Section**

This 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. Interest earnings on the Fund is used to: 1) pay off the state match bond issues and 2) 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 18 years of activity, the Fund capitalization level exceeds \$144 million: \$124 million received from federal grants with the match provided from fees, state general fund appropriations, and \$21.2 million in match from NIFA bond issues. There is also \$20 million in growth available or loaned by the program. Since its inception, the program has made loans totaling \$257 million to 153 municipalities.

**CWSRF Source of Funds**

| <b>FUNDS MADE AVAILABLE</b>               | <b>FFY2006</b>    | <b>FFY2007 Estimate</b> |
|---|-------------------|-------------------------|
| Capitalization Grant - CWSRF              | \$4,424,300       | \$3,500,000             |
| NIFA Series 2006B Match Bonds             | 710,000           |                         |
| Future NIFA Series 2007B Bonds            |                   | 560,000                 |
| Administration Cash Match <sup>(1)</sup>  | 176,972           | 140,000                 |
| Interest Earnings <sup>(2)</sup>          | 3,302,519         | 3,962,826               |
| Loan Repayments <sup>(2)</sup>            | 7,536,331         | 7,215,572               |
| <b>TOTAL CWSRF</b>                        | <b>16,150,123</b> | <b>15,378,398</b>       |
| <i>Less Loan Awards &amp; Admin Costs</i> | <i>16,150,123</i> | <i>3,808,781</i>        |
| <b>Available for Loans</b>                | <b>0</b>          | <b>11,558,512</b>       |

<sup>(1)</sup> Source of Cash Match is the Administrative Fee Account outside of the SRF

<sup>(2)</sup> Interest earnings and loan repayments are estimated.

The FY06 program Funds consist of approximately \$4.4 million CWSRF capitalization grant, \$710,000 NIFA bond match and about \$10.8 million in repayments and interest. The program disbursed \$34.6 million for wastewater treatment project construction costs. Loan contracts were signed with eight communities and loan amendments were signed with five communities for a total obligation of \$37.7 million. The program now has a high level of participation from small communities; however, marketing efforts are continuing to further encourage small community participation. The following chart shows the municipalities that received Clean Water State Revolving Fund loans in FY2006.



Municipalities Receiving CWSRF Loans in FY2006

| MUNICIPALITY     | LOAN DATE | LOAN AMOUNT  | SMALL TOWN GRANT AMOUNT |
|------------------|-----------|--------------|-------------------------|
| Nickerson*       | 9/6/05    | \$90,000     |                         |
| Bassett*         | 9/8/05    | \$35,500     |                         |
| Omaha            | 9/29/05   | \$12,100,000 |                         |
| North Platte     | 3/10/06   | \$7,300,000  |                         |
| Dwight           | 3/31/06   | \$250,650    | \$93,030                |
| Silver Creek     | 3/31/06   | \$243,000    |                         |
| Plainview        | 4/3/06    | \$1,260,000  |                         |
| Kennard          | 4/4/06    | \$693,000    | \$100,000               |
| St. Paul         | 5/15/06   | \$340,000    |                         |
| Murray*          | 5/16/06   | \$262,000    | \$81,706                |
| Gosper Co. SID#1 | 5/25/06   | \$14,750,000 |                         |
| Garland*         | 6/6/06    | \$50,000     |                         |
| Palmer*          | 6/14/06   | \$367,000    |                         |

\* Amendment to an existing loan

Fifteen SRF wastewater projects completed construction and initiated operation in SFY06: Bassett, Bertrand, Cass Co. SID#5, Cook, Falls City, Gering, Gothenburg, Howells, Nickerson, North Bend, Oxford, Ruskin, Sutherland, Valley, and West Point. Twenty projects are under construction including those who have received loans in FY2007: Arlington, Deshler, Dwight, Garland, Gosper Co. SID#1 (aka, Johnson Lake), Hickman, Madison, McCook, Murray, North Platte, Omaha CSO, two Omaha Treatment Plants, Oxford, Palmer, Plainview, Rising City, Ruskin, St. Paul, and Silver Creek.

### Small Community Matching Grants

The small community matching grants subprogram of the CWSRF provides matching grants to municipalities with population of 5,000 or less. This program has provided \$4.22 million in grant funding for 48 projects in conjunction with a CWSRF loan during the 16 years of the program. Many small municipalities find that needed projects are too costly without the additional grant subsidy provided along with the CWSRF loan. During FY2000, legislation was passed providing the department with authority to allocate up to \$500,000 per year for small town matching grants. Funding for these grants is taken out of the CWSRF cash fund, a fund generated through fees collected on CWSRF loans. Prior to legislation that became effective in FY2003, eligible small communities had been defined as 800 or less. The FY2003 legislation increased the population level for eligible communities to 5,000 or less. The department intends to provide funding to as many qualifying projects as possible; therefore, grant amounts are limited so that any one community can receive up to \$100,000. The FY2003 legislation also provided authority to make grants for community assessments and facility plans. The department started providing planning grants during FY2004 through the Nebraska Environmental Partnership Program.

### Drinking Water State Revolving Loan Fund

In August 1996, the federal Safe Drinking Water Act was amended to include a Drinking Water State Revolving Fund program (DWSRF). In 1997, the Nebraska Legislature passed LB517, which amended the Nebraska Safe Drinking Water Act and established the DWSRF. An agreement between the NDEQ and the Nebraska Department of Health and Human Services Regulation and

Licensure (DHHSR&L), 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 (CWSRF) in that both obtain the required 20% state match through appropriations and 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 the availability of 30% loan forgiveness, and set-asides for program administration, technical assistance, wellhead protection, capacity development, and operator certification.

**DWSRF Source of Funds**

| <b>FUNDS MADE AVAILABLE</b>            | <b>FFY2006</b>      | <b>FFY 2007 ESTIMATE</b> |
|--|---------------------|--------------------------|
| Capitalization Grant DWSRF             | \$8,229,300         | \$8,200,000              |
| NIFA Series 2006A Match Bonds          | \$1,645,860         |                          |
| Future NIFA Series 2007A Bonds         |                     | \$1,640,000              |
| Loan Repayments                        | \$1,846,883         | \$3,127,160              |
| TOTAL DWSRF                            | \$11,722,043        | \$12,967,160             |
| <b>Less Loan Awards and Set-Asides</b> | <b>\$11,722,043</b> | <b>\$2,213,934</b>       |
| Available for Loans                    | 0                   | \$10,753,226             |

The FY2006 DWSRF capitalization grant allocation totaled \$8.2 million from FY06 federal appropriations. The program disbursed \$12.4 million for drinking water project construction. Loan contracts were signed with eight communities and loan amendments were signed with two communities for a total obligation of \$4.9 million including Loan Forgiveness. The following chart shows the municipalities receiving Drinking Water State Revolving Fund loans in FY2006.

**Municipalities Receiving DWSRF Loans in FY2006**

| <b>MUNICIPALITY</b> | <b>LOAN DATE</b> | <b>LOAN AMOUNT</b> | <b>LOAN FORGIVENESS</b> |
|---------------------|------------------|--------------------|-------------------------|
| Cozad               | 9/6/05           | \$1,437,300        |                         |
| Bristow             | 9/8/05           | \$80,000           |                         |
| Central City        | 9/30/05          | \$510,000          | \$100,000               |
| Bloomfield          | 11/22/05         | \$195,000          |                         |
| RWD#1 of Cuming Co. | 2/16/06          | \$383,400          |                         |
| Holbrook            | 3/7/06           | \$615,000          |                         |
| Stratton            | 3/31/06          | \$1,001,000        |                         |
| Adams               | 3/31/06          | \$263,949          | \$59,004                |
| Kimball Amd#1       | 5/5/06           | \$50,000           |                         |
| Big Springs Amd#2   | 6/19/06          | \$215,000          |                         |
| Total               |                  | \$4,750,649        | \$159,004               |

Eight DWSRF projects completed construction and initiated operation in SFY06: Bristow, Bruno, David City, DeWitt, Kimball, McCook, Plattsmouth, and South Sioux City. Seventeen projects are under construction, including those who have received loans during FY2007: Bancroft, Big Springs, Bloomfield, Broken Bow, Central City, Clarks, Cozad, Cuming Co. RWD#1, David City, DeWitt, Elba, Holbrook, Kimball, Louisville, Pender, Scotia, and Stratton.

Detailed capitalization funding uses, including planned set-aside options and anticipated levels of loan forgiveness, are shown in the following "DWSRF Funding Uses" table. Section 1452 of the Safe Drinking Water Act authorizes states to set-aside funds to implement provisions of the SDWA. Discussion on the planned utilization of these set-asides follows.

The DWSRF Administration Expense set-aside (4%) is no longer being used for DWSRF program administration. Administrative costs are being paid out of the administrative cash fund and may include program operating costs for both NDEQ and DHHSR&L including day-to-day program management activities for both agencies, and 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 Supply Systems serving 10,000 or fewer persons. This is accomplished through contracts with organizations with expertise in dealing with small systems and is coordinated by the DHHSR&L.

In FY2006, under the Source Water Protection Implementation set-aside (15%) NDEQ and HHSR&L provided \$200,000 for community assessments and preliminary engineering reports, and \$200,000 for wellhead protection project grants. The Nebraska Environmental Partnerships Program administers the grants provided for community assessments and preliminary engineering reports. The department's Source Water Program administers the wellhead protection grants.

The DHHSR&L has determined eligibility for Public Water Supply program management, development and implementation of a capacity development strategy, and a water operator certification program set-aside of \$300,000. The state may use up to a total of 10 percent for this set-aside but must provide a one-to-one state match by Section 1452(g)(2). DHHSR&L has determined the set-aside eligibility by using program overmatch dollars for federal fiscal years 1993 to 1997. No additional state dollars will be required for the set-aside amount.

The DWSRF intends to provide loan forgiveness to disadvantaged communities to the extent funds are available as outlined in the table below. Loan forgiveness funds will be targeted to the highest priority projects on the Project Priority List until all designated funds are allocated.

**DWSRF FUNDING USES AND STATUTORY LIMITS**

|  | CAPITALIZATION GRANT<br>ALLOCATION PERCENTAGE |                       | FEDERAL            | STATE              |
|--|---|-----------------------|--------------------|--------------------|
|  | LEGAL LIMIT                                   | INTENDED USE<br>LEVEL |                    |                    |
| <b><u>FY2006</u></b>                       |   |                       |                    |                    |
| DWSRF                                      |   |                       | 6,964,714          | \$1,645,860        |
| DWSRF Administration                       | 4%  | 0%                    | 0                  |                    |
| Small System Technical Assistance          | 2%  | 2%                    | \$164,586          |                    |
| Source Water Protection Implementation     | 15%   | 9.72%                 | \$800,000          |                    |
| Public Water System Program Administration | 10%   | 3.65%                 | \$300,000          |                    |
| <b>TOTAL</b>                               |   |                       | <b>\$8,229,300</b> | <b>\$1,645,860</b> |
| 2006 Loan Forgiveness                      | 30%   | 3.65%                 | \$300,000          |                    |
|  |   |                       |                    |                    |
| <b><u>FY2007 Projected Funding</u></b>     |   |                       |                    |                    |
| DWSRF                                      |   |                       | \$6,932,000        | \$1,640,000        |
| DWSRF Administration                       | 4%  | 0%                    | 0                  |                    |
| Small System Technical Assistance          | 2%  | 2%                    | \$164,000          |                    |
| Source Water Protection Implementation     | 15%   | 9.76%                 | \$800,000          |                    |
| Public Water System Program Administration | 10%   | 3.66%                 | \$300,000          |                    |
| <b>TOTAL</b>                               |   |                       | <b>\$8,200,000</b> | <b>\$1,640,000</b> |
| 2007 Loan Forgiveness                      | 30%   | 3.66%                 | \$300,000          |                    |

# CHAPTER 7:

## Environmental Assistance Division

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The purpose of the Environmental Assistance Division is to serve the regulated community and the public by providing assistance and coordinating and providing outreach activities. The division consists of several programs: Small Business and Public Assistance, SARA Title III – Community Right-To-Know, Nebraska Environmental Partnerships (NEP), Release Assessment and Homeland Security. By centralizing these programs, the division brings greater focus to the department's overall assistance and outreach efforts and provides the public and regulated community with a better understanding of the department's regulations and environmental issues.

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

- The Nebraska Environmental Partnerships program has continued to explain and provide information on Nebraska's efforts to assist small communities to many national entities who are interested in our program.
- The Small Business and Public Assistance Program, and particularly the One-Stop Permit Assistance program contained therein, has devoted a great deal of time to the biofuels industry. While the majority of this effort has revolved around ethanol plants, biodiesel facilities are requiring increased attention. A number of on-site visits have occurred and the SBAP has coordinated the preparation of a number of assistance documents.
- The Community Right-to-Know program continues to work with Local Emergency Planning Committees in planning efforts as well as providing relevant information. The Program has participated in several local emergency management agency meetings over the last year.
- The Release Assessment program continues to enhance the Department's ability to respond to releases into the environment by securing equipment and additional training for the Department's Immediate Response Team.
- The Division continues to coordinate environmental partnership efforts with the Nebraska Public Power District (NPPD.) The overall objective of the Partnership is to capitalize on the strengths of each organization and make strides toward a sustainable Nebraska. One of the primary efforts of the Partnership has been the sponsorship of the "Power Summit" where a broad range of environmental issues impacting the electric power generating industry are examined. Another continuing effort of the Partnership has been the examination and promotion of methane recovery at Concentrated Animal Feeding Operations (CAFOs). The Partnership has been actively involved in the state's first commercial operation which began producing methane in October of 2005.
- The Environmental Assistance Division has been examining the federal Brownfields program in an effort to identify potential opportunities which will benefit Nebraska communities. The Brownfields program is intended to restore blighted and contaminated areas of the country to productive use. Typically, most Brownfield resources are devoted to heavily industrialized areas.
- The Division has assumed responsibility for the Department's Quality Assurance Program. The function of the Quality Assurance Program is to ensure that environmental data used by the Department in regulatory and decision-making activities are properly documented and

sufficiently reliable to meet Department needs. NDEQ is committed to ensuring that environmental data used by the Department are sufficiently precise, accurate, and complete to carry out NDEQ's responsibilities.

- The Division has been active in the Interstate Technology and Regulatory Council, an organization devoted to the introduction of innovative technologies that will increase the speed, and reduce the cost of addressing various types of environmental contamination.

Following is a summary of the programs within the Environmental Assistance Division:

### **Small Business and Public Assistance Program**

The Small Business and Public Assistance program was created as a result of the Clean Air Act Amendments of 1990 to assist sources in complying with air quality regulations. The department realized the potential beneficial impact of the program and expanded the scope of the program to encompass all environmental media – air, waste and water.

The program is divided into four major components: the Small Business Compliance Advisory Panel, the Public Advocate (who serves as the ombudsman for the purposes of the Clean Air Act), the Small Business and Public Assistance program, and the One-Stop Permitting program. The Small Business and Public Assistance program coordinator performs all four functions.

The Small Business Compliance Advisory Panel is comprised of seven people: two representatives from the general public selected by the Governor, four representatives from small business selected by the Legislature, and one department representative selected by the Director. The panel has three functions: 1) to evaluate the effectiveness of the Small Business and Public Assistance program and to identify any obstacles that may cause it to become less effective, 2) to provide feedback on outreach and education methods provided by the program, and 3) to review written documents developed by department programs to ensure the information is understood by the lay person. The panel was formed pursuant to the Clean Air Act Amendments of 1990. The Department is examining methods to re-invigorate the panel's activities.

Another component is that of Public Advocate. The Public Advocate provides several services to the public by acting as a clearinghouse for department information. The Public Advocate receives requests for regulatory information or environmental complaints from the public, and either addresses the issue or ensures that the appropriate department employee follows up on the issue. This role of interfacing with the public ensures the department is accessible and responsive to public concerns.

The Assistance program includes site visits, development of outreach materials, workshops, and business and industry assistance in understanding their obligations under state law. The program also helps analyze outreach efforts and identifies additional rules or regulations that may affect future small business operations. In addition, the assistance program provides a directory of environmental engineers and consultants, which can be used by those seeking private environmental assistance.

The One-Stop Permit Assistance program was established to serve as a clearinghouse for information related to the department's various permitting processes. This program's objective is to ensure that businesses and industry are aware of what permits they are required to apply for, what information they will need to provide in the permit application, and the permit process. The one-stop program coordinator doesn't personally address all inquiries, but brings together appropriate staff to address questions or concerns and ensure that inquiries receive a timely response. The one-stop program also coordinates activities with other state, federal or other assistance organizations and regulatory programs in an attempt to address questions and concerns in a timely and comprehensive manner.

### **Community Right-To-Know**

The Environmental Assistance Division provides assistance to those 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 acts 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, 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 this program.

The Community Right-To-Know program distributes outreach materials, responds to public requests for information, and receives and stores vast amounts of information required under this act. The information that facilities are required to provide the department, 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 calendar year 2005, approximately 3,100 Nebraska facilities reported Tier II information on regulated chemicals above EPA-established thresholds. This was nearly a 10% increase from the previous year.

The Environmental Assistance Division has been working with the department's Information Technology section to enable online entry of required information. For the past two years, facilities have been able to access, view, change and report their chemical information online instead of submitting a paper copy form each year. Approximately 72% of the facilities reported online in Nebraska this year. This information will be more readily accessible for purposes such as developing local emergency plans.

Additionally, the Community Right-To-Know Coordinator has been able to reach out to local Emergency Planning Committees to assist with local emergency exercises and provide information regarding chemicals at facilities in their communities.

### **Nebraska Environmental Partnerships**

The Nebraska Environmental Partnerships program was formed to help Nebraska's small communities address the challenges posed by complex environmental regulations, limited financial resources, and aging infrastructure.

The Environmental Partnerships program is a unique state-coordinated effort aimed at helping small towns meet these challenges through a team process that helps local communities prioritize risks, and find technically and financially feasible solutions. Rather than establishing mandates and expecting citizens to comply, the program establishes partnerships with communities with a goal of finding customized solutions that will benefit everyone. It is a collaborative, teamwork approach.

The Environmental Partnerships program typically works with communities of 1,000 population or fewer, and has created a community-training program. Program staff travels to communities, at the community's request, and provides individualized training relevant to that community's environmental questions and needs. The curriculum is intended to explain new regulations and requirements, instruct community officials in completing DEQ forms and loan/grant applications, and make assistance available in whatever else is pertinent to the community officials and the surrounding region. In FY2006, the Environmental Partnerships program presented this individualized training to 13 communities.

The Environmental Partnerships program continues to collaborate with the Drinking Water State Revolving Fund to administer a grant program that provides planning grant assistance to small public water supply systems. These Planning grants are intended to be used as a part of the State's capacity development strategy to help communities develop technical, managerial, and financial capacity particularly as it relates to long-term capital improvement needs. The planning grants may be provided to public water supply systems with populations of 10,000 or fewer.

The Environmental Partnerships program also continues to collaborate with the Clean Water State Revolving Fund to administer a facility planning grant program that provides financial assistance to high priority Publicly Owned Wastewater Treatment Works. The facility planning grants may be provided to municipalities with populations of 5,000 or less that demonstrate serious financial hardship.

The program is also responsible for coordinating a number of other projects that assist small communities. It is actively involved in coordinating and participating in regional water system planning meetings throughout the state. Throughout FY2006, the Environmental Partnerships program coordinated or participated in eight planning meetings in three regions of the state.

The Environmental Partnerships program provides information to the Environmental Council of the States (ECOS). ECOS is an organization comprised of the directors of the states' environmental agencies. Its mission is to improve the nation's environment by championing the roles of states in environmental management; providing for the exchange of ideas, views, and experiences among states; fostering cooperation and coordination in environmental management; and articulating state positions to Congress, federal agencies and the public on environmental issues.

ECOS has sought the Department's advice and asked that we appear at workshops to explain the Nebraska Environmental Partnerships program. ECOS has recognized the Nebraska Environmental Partnerships program as unique and has held it up as a model for other states to follow in providing assistance to small communities.

### **Release Assessment**

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

A Release Assessment Coordinating group has been formed and the Release Assessment Coordinator directs its activities. The purpose of this group is to better communicate and resolve issues related to common spill reports and complaints. The result is an improved and coordinated effort to address all of the various issues associated with a chemical accident or other event.

The Release Assessment Coordinator is responsible for training, equipping and supervising a group of personnel who provide initial assistance and response to spills. These individuals have the



responsibility of maintaining an emergency system, on call 24 hours a day. They represent the environmental interests of the state at the scene of a petroleum or chemical spill or other environmental emergency. All personnel are members of the State Emergency Response Team (SERT) and coordinate closely with the local, state and federal agencies involved in emergency response situations.

The Release Assessment Program assists in arranging for the disposal of harmful and potentially hazardous materials. Similar to the Petroleum Remediation Program, staff also oversee remedial action requirements when cleanup is necessary.

The agency's Information Technology Section, in conjunction with the Release Assessment Coordinator, is developing a department-wide system for receiving information from the public and the regulated community related to complaints and spills. Ultimately the system will enable the public to submit some information on-line. Additionally the system will provide the department with a more effective manner to share the information submitted. The Release Assessment Coordinator will ensure that the information submitted is routed to the appropriate program and that the department provides a timely response to the information.

### **Homeland Security**

The Department has been actively involved in the state's Homeland Security efforts, which are directed by the Lieutenant Governor. The Department's Deputy Director of Programs represents the Department on the Lieutenant Governor's Homeland Security Leadership Group. The Leadership Group has directed appropriate state agencies to form the following teams: 1) Planning, 2) Exercise, 3) Training, and 4) Web/Information. The Release Assessment Coordinator serves as the overall team coordinator.

The NDEQ Homeland Security Exercise Team developed and implemented one in-house exercise, which was conducted in the Spring of 2006. NDEQ was an active participant in the planning of a statewide exercise, which took place on November 8, 2006.

# CHAPTER 8:

## Expenditure and Budget Summary

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The following information summarizes department expenditures for fiscal year 2006 and outlines budget projections for fiscal year 2007. 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 FY06 expenditures for each federal grant, including the state match.

**Chart B** lists actual FY06 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, consulting and distribution of aid.

**Chart C** is the proposed FY07 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 for by in-kind services in the groundwater management area program.

**Chart D** lists proposed FY07 budgets for programs funded by state funds. This chart lists proposed expenditures by activity. Please note, activity is not a program activity, but a category of expenditure. Activities listed are personnel services, operations, travel, capital outlay, consulting and distribution of aid.

Activities of agency programs are described in Chapters 2 through 7 of this report.

**Chart A -- Actual Expenditure for Each Federal Grant for State Fiscal Year 2006**

| <b>Grant Program / Title</b>              | <b>Assistance ID #</b> | <b>Grant</b>      | <b>Match</b>     | <b>Total</b>      |
|---|------------------------|-------------------|------------------|-------------------|
| Performance Partnership                   | BG997325-04            | 1,862,722         | 255,942          | 2,118,664         |
| Performance Partnership                   | BG997325-05            | 2,601,575         | 832,592          | 3,434,167         |
| Plum Creek MST                            | CP987401-01            | 35,203            | 9,507            | 44,710            |
| NPDES e-Permitting Grant                  | CP987719-01            | 104               |                  | 104               |
| Joint State Atrazine Study                | CP997369-01            | 29,825            |                  | 29,825            |
| Clean Water State Revolving Fund          | CS310001-05            | 5,467,300         | 1,893,630        | 7,360,930         |
| 604 B Water Quality Management            | C6007328-14            | 48,882            |                  | 48,882            |
| 604 B Water Quality Management            | C6007328-15            | 81,723            |                  | 81,723            |
| 319 H Non-Point Source                    | Various                | 4,087,098         | 62,610           | 4,149,708         |
| Drinking Water State Revolving Fund       | Various                | 8,454,603         | 2,090,152        | 10,544,755        |
| Underground Injection Control             | G987092-05             | 31,774            | 21,659           | 53,433            |
| Underground Injection Control             | G987677-01             | 54,415            | 56,189           | 110,604           |
| Hardship Grant                            | HG997607-01            | 133,962           | 18,294           | 152,256           |
| Leaking Underground Storage Tanks         | LS987161-01            | 567,321           | (28,532)         | 538,789           |
| Leaking Underground Storage Tanks         | LS987161-02            | 36,579            | 55,833           | 92,412            |
| Department of Defense                     | Various                | 136,146           |                  | 136,146           |
| Pollution Prevention Technical Assistance | NP987508-01            | 59,769            |                  | 59,769            |
| Network Readiness                         | OS831312-01            | 55,324            |                  | 55,324            |
| Network Challenge                         | OS831312-01            | 1,102             |                  | 1,102             |
| EN Implementation                         | OS831971-01            | 318               |                  | 318               |
| PM 2.5 Ambient Air Monitoring             | XA987417-02            | 227,959           |                  | 227,959           |
| PM 2.5 Ambient Air Monitoring             | XA987723-01            | 56,775            |                  | 56,775            |
| Operator Training                         | T987163-02             | 48,821            | 9,103            | 57,924            |
| Operator Training                         | T987405-01             | (2,289)           | 402              | (1,887)           |
| Operator Training                         | T987674-01             | 3,379             | 1,437            | 4,816             |
| Section 128 (a) State Response            | RP987322-01            | 566,520           |                  | 566,520           |
| Superfund UNL Mead                        | V987587-01             | 17,690            |                  | 17,690            |
| Superfund Core                            | VC987267-02            | 24,932            | 1,982            | 26,914            |
| Superfund Core                            | VC987267-03            | 175,213           | 19,132           | 194,345           |
| Superfund Management Assistance           | V997531-03             | 49                |                  | 49                |
| Superfund Management Assistance           | V997531-04             | 15,422            |                  | 15,422            |
| Superfund Management Assistance           | V997531-05             | 116,213           |                  | 116,213           |
| Superfund Site Assessment                 | V997532-02             | 22,320            |                  | 22,320            |
| Superfund Site Assessment                 | V997532-03             | 210,138           |                  | 210,138           |
| Tuttle Creek Lake                         | WS9877733-01           | 1,015             |                  | 1,015             |
| UIC Class V Project                       | X6987390-01            | 2,569             |                  | 2,569             |
| Homeland Security Grants                  | Various                | 178,219           |                  | 178,219           |
| <b>Totals</b>                             |                        | <b>25,410,690</b> | <b>5,299,932</b> | <b>30,710,622</b> |

Underground Injection Control Program match is provided by the Mineral Exploration Program

Performance Partnership BG997325-05 is made up of Water 106, Air 105, Groundwater, RCRA 3011, 319 H & Agency Training

319 H Non Point Source Match comes from the Groundwater Management Area Program (Subprogram 035)

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

**Chart B - Actual Expenditure of State Funds for State Programs for Fiscal Year 2006 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         | 1,018,893         | 377,175            | 41,282         | 1,903          | 87,926                  | 1,527,179         | 116,637             | 1,643,816         |
| CLEAR / Environmental Trust             | 011        | C         |                   | 2,919              |                |                | 3,897                   | 6,816             |                     | 6,816             |
| Ag - Livestock                          | 016        | G/C       | 1,136,689         | 45,718             | 49,135         | 2,895          | 37,312                  | 1,271,749         |                     | 1,271,749         |
| Air Construction Permits                | 020        | C         |                   | 55                 |                |                | 128,284                 | 128,339           |                     | 128,339           |
| Superfund State Cost Share              | 023        | C         |                   |                    |                |                | 762,453                 | 762,453           |                     | 762,453           |
| Litter Reduction                        | 024        | C         | 77,909            | 30,692             | 2,658          |                | 371                     | 111,630           | 1,459,372           | 1,571,002         |
| Private Onsite Wastewater Certification | 030        | C         | 164,033           | 62,842             | 12,856         |                | 916                     | 240,647           |                     | 240,647           |
| Sutherland Settlement Agreement         | 031        | C         | 1,946             | 722                |                |                |                         | 2,668             |                     | 2,668             |
| Emission Inventory - Title V            | 033        | C         | 1,472,786         | 555,652            | 45,484         | 6,677          | 125,756                 | 2,206,355         |                     | 2,206,355         |
| Chemigation                             | 034        | C         | 16,813            | 8,932              | 34             | 228            | 12,000                  | 38,007            |                     | 38,007            |
| Remedial Action Plan Monitoring Act     | 036        | C         | 10,462            | 4,578              | 333            |                | 441                     | 15,814            |                     | 15,814            |
| Operator Certification                  | 040        | C         | 30,199            | 11,529             | 1,309          | 152            | 4,135                   | 47,324            |                     | 47,324            |
| Community Right to Know                 | 041        | G         | 78,221            | 7,208              | 1,615          |                | 4,369                   | 91,413            |                     | 91,413            |
| Petroleum Release Remedial Action Act   | 051        | C         | 860,613           | 392,332            | 22,091         | 427            | 3,674,189               | 4,949,651         | 10,032,772          | 14,982,423        |
| Emergency Response                      | 057        | C         | 181,060           | 64,826             | 3,142          | 1,619          | 2,155                   | 252,802           |                     | 252,802           |
| Engineering Reviews                     | 061        | G         | 338,450           | 4,729              | 874            | 1,215          | 4,500                   | 349,768           |                     | 349,768           |
| Low Level Radioactive Waste             | 085        | G         | (13)              | 2,423              |                |                | 739                     | 3,149             |                     | 3,149             |
| Waste Reduction & Recycling             | 091        | C         | 142,119           | 57,077             | 7,087          | 69             | 591                     | 206,943           | 3,736,327           | 3,943,270         |
| Agency Organizational Dues              | 099        | G         |                   | 13,000             |                |                | 32,453                  | 45,453            |                     | 45,453            |
| <b>Totals</b>                           |            |           | <b>5,530,180</b>  | <b>1,642,408</b>   | <b>187,900</b> | <b>15,185</b>  | <b>4,882,487</b>        | <b>12,258,161</b> | <b>15,345,108</b>   | <b>27,603,269</b> |

FUND TYPE LEGEND  
 G - Program Expends General Funds  
 C - Program Expends Cash Funds  
 G/C - Program Expends Both General and Cash Funds

### Chart C - Proposed Budget for Each Federal Grant Program for State Fiscal Year 2007

| Grant / Program Title               | Match     | Grant      | Total      |
|-------------------------------------|-----------|------------|------------|
| Performance Partnership             | 1,385,968 | 4,011,596  | 5,397,564  |
| Clean Water State Revolving Fund    | 2,028,000 | 10,140,000 | 12,168,000 |
| 604 B Water Quality Management      |           | 101,541    | 101,541    |
| 319 H Non-Point Source              | 71,335    | 4,483,847  | 4,555,182  |
| Drinking Water State Revolving Fund | 2,260,600 | 11,303,004 | 13,563,604 |
| Underground Injection Control       | 77,040    | 91,653     | 168,693    |
| Leaking Underground Storage Tanks   | 73,936    | 665,430    | 739,366    |
| Department of Defense               |           | 162,998    | 162,998    |
| PM 2.5 Ambient Air Monitoring       |           | 270,853    | 270,853    |
| Operator Training                   | 12,575    | 37,728     | 50,303     |
| Superfund UNL Mead                  |           | 7,950      | 7,950      |
| Superfund Core                      | 22,637    | 203,703    | 226,340    |
| Superfund Management Assistance     |           |            | 175,095    |
| Superfund Site Assessment           |           |            | 270,536    |
| State 128 (A) Response              |           |            | 504,733    |
| Exchange Network Implementation     |           | 100,000    | 100,000    |
| Network Challenge                   |           | 68,238     | 68,238     |
| Pollution Prevention                |           | 75,000     | 75,000     |

Underground Injection Control Program match is provided by the Mineral Exploration Program

Performance Partnership is made up of Water 106, Air 105, Groundwater, RCRA 3011, Agency Training, and a part of 319 H

319 H Non Point Source Match comes from the Groundwater Management Area Program (Subprogram 035)

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

**Chart D - Proposed Budget of State Funds for State Programs for Fiscal Year 2007 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         | 1,203,178         | 427,471            | 38,968         | 525            | 105,555                 | 1,775,697         | 100,000             | 1,875,697         |
| Ag - Livestock                          | 016        | G/C       | 1,179,150         | 47,865             | 44,290         | 3,875          | 45,800                  | 1,320,980         |                     | 1,320,980         |
| Air Construction Permits                | 020        | C         | 190,007           | 60,154             |                |                | 136,000                 | 386,161           |                     | 386,161           |
| Superfund State Cost Share              | 023        | G/C       |                   |                    |                |                | 1,827,634               | 1,827,634         |                     | 1,827,634         |
| Litter Reduction                        | 024        | C         | 85,605            | 31,223             | 2,700          |                |                         | 119,528           | 1,200,000           | 1,319,528         |
| Private Onsite Wastewater Certification | 030        | C         | 170,941           | 57,631             | 14,725         |                | 575                     | 243,872           |                     | 243,872           |
| Sutherland Settlement Agreement         | 031        | C         |                   |                    |                |                | 20,000                  | 20,000            |                     | 20,000            |
| Emission Inventory - Title V            | 033        | C         | 1,661,424         | 585,874            | 43,750         | 8,900          | 152,525                 | 2,452,473         |                     | 2,452,473         |
| Chemigation                             | 034        | C         | 12,762            | 9,347              | 50             |                | 20,000                  | 42,159            |                     | 42,159            |
| Remedial Action Plan Monitoring Act     | 036        | C         | 36,306            | 12,429             | 325            |                | 375                     | 49,435            |                     | 49,435            |
| Operator Certification                  | 040        | C         | 62,917            | 23,210             | 1,725          | 200            | 3,825                   | 91,877            |                     | 91,877            |
| Community Right to Know                 | 041        | G         | 68,211            | 4,360              | 1,775          |                | 6,000                   | 80,346            |                     | 80,346            |
| Petroleum Release Remedial Action Act   | 051        | C         | 1,000,199         | 452,970            | 25,050         | 550            | 6,628,882               | 8,107,651         | 10,000,000          | 18,107,651        |
| Emergency Response                      | 057        | C         | 171,474           | 55,908             | 1,675          | 1,600          | 1,000                   | 231,657           |                     | 231,657           |
| Engineering Reviews                     | 061        | G         | 311,523           | 5,900              | 575            | 1,625          | 6,579                   | 326,202           |                     | 326,202           |
| Stormwater Grants                       | 067        | G         | 10,028            | 500                | 1,500          |                |                         | 12,028            | 2,487,972           | 2,500,000         |
| Waste Reduction & Recycling             | 091        | C         | 178,721           | 64,117             | 7,050          |                | 350,075                 | 599,963           | 3,100,000           | 3,699,963         |
| Agency Organizational Dues              | 099        | G         |                   | 13,000             |                |                |                         | 13,000            |                     | 13,000            |
| <b>Totals</b>                           |            |           | <b>6,342,446</b>  | <b>1,851,959</b>   | <b>184,158</b> | <b>17,275</b>  | <b>9,304,825</b>        | <b>17,700,663</b> | <b>16,887,972</b>   | <b>34,588,635</b> |

**FUND TYPE LEGEND**

G - Program Expends General Funds

C - Program Expends Cash Funds

G/C - Program Expends Both General and Cash Funds

# CHAPTER 9:

## Distribution of Aid

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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 Program for construction of wastewater treatment facilities and drinking water systems.

This chapter provides a summary of those aid activities for fiscal year 2005. It also provides information regarding the Litter Reduction and Recycling Grant Program as required by §81-1504.01.

### **Waste Management Grants**

Following is a summary of funds provided in 2006 through the waste grants programs managed in the Waste Planning and Aid Unit.

The Litter Reduction and Recycling Grant Program provides funds to reduce litter, provides education and promotes recycling in Nebraska. It operates on an annual rather than a fiscal year basis. 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. Approximately \$1.2 million is available annually through this program.

In calendar year 2006, 54 Litter Reduction and Recycling grants were awarded, totaling \$1,297,573. The grants were awarded in three categories: Public Education, \$479,434; Cleanup, \$122,012; and Recycling, \$696,127. These grants were awarded to both public and private entities.

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 calendar year 2006, 126 projects totaling \$2,709,873 were funded from the Waste Reduction and Recycling Incentive Grants Program.

The Illegal Dumpsite Cleanup Program, established in 1997, receives up to five percent of the total revenue from the disposal fee collected in the preceding fiscal year. This program provides funding for political subdivisions to cleanup solid waste disposed of along public roadways or ditches. During Fiscal Year 2006, \$109,082 was reimbursed to 11 political subdivisions for the cleanup of illegal dump sites.

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.

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 10 cent rebate from the \$1.25 per ton disposal fee. Rebates are issued quarterly.

Since its inception in 1994, seven communities have participated in the program. A total of \$83,875 in rebates were awarded in fiscal year 2006.

### **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 provided mostly by a fee on petroleum sold in Nebraska. Over \$108 million has been disbursed since the program began. The program provided \$9,151,644 to 389 sites for investigation and cleanup in FY2006.

### **Clean Water State Revolving Loan Fund**

The Clean Water State Revolving Loan Fund provides low interest loans to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems. The sources of funding for this program include federal grants, an initial state general fund appropriation and funds from Nebraska Investment Financial Authority (NIFA) through bond issuance. In FY2006, loans totaling \$37.7 million were allocated, and \$34.6 million was disbursed.

The Nebraska Environment Partnerships program used Clean Water State Revolving Fund administrative cash funds to provide facility planning grant assistance to eligible municipalities for wastewater treatment system improvement projects that may seek funding through the Water Wastewater Advisory Committee Common Preapplication Process. This financial assistance is being provided to communities to identify capital improvement needs as well as increase their readiness to proceed in accomplishing these improvements.

Facility planning grants may be provided to municipalities with populations of 5,000 or fewer that are identified with a financial hardship. This includes any city, town, village, sanitary improvement district, natural resources district, or other public body created by or pursuant to state law having jurisdiction over a wastewater treatment facility. Privately owned wastewater treatment systems are not eligible for assistance.

FY2006 grants are provided for up to 80% of the eligible facility plan project cost, but cannot exceed \$15,000 (an increase from FY2005's limit of \$12,500). Since FY2004, the Nebraska Environmental Partnerships program, through the Clean Water State Revolving Fund, has provided facility planning grants to 27 communities, for a total of \$338,340. Grant awards for FY2006, totaling \$135,000, were allocated to 10 communities: Brainard, Carroll, Clearwater, Davey, Doniphan, Dunning, Hayes Center, Oakland, Osmond and Salem.

### **Drinking Water State Revolving Fund**

The Drinking Water State Revolving Fund provides funding assistance on Drinking Water projects. In FY2006, loans totaling \$8.2 million were allocated, and \$12.4 million was disbursed.

The construction of wastewater and drinking water facilities is a multi-year process. There are projects which have been approved in previous fiscal years which have may received funds in fiscal year 2006. Conversely, projects approved in fiscal year 2006 may receive funds in future fiscal years.

Beginning in FY2004, \$200,000 per year has been set aside from the Drinking Water State Revolving Fund to finance source water protection projects statewide. Grants are given to units of government, education institutions, and non-profit organizations to carry out projects that will help protect the state's drinking water sources. Ten grants were awarded in both fiscal years 2004 and 2005, eleven were awarded for FY2006, and six grants will be awarded for FY2007. Source water



protection activities that address drinking water quality, quantity, security, or education are eligible for grant funding. These grants have allowed public water suppliers to place security fences around wellfields, install water-saving devices within the community, decommission unused wells in Wellhead Protection Areas, and provide useful educational information to the public. Grants usually range from \$10,000 to \$50,000.

The Nebraska Environmental Partnerships program used Drinking Water State Revolving Fund local assistance set-aside funds to provide planning grant assistance to small public water supply systems as a part of the state's capacity development strategy to help communities develop technical, managerial, and financial capacity particularly as it relates to long-term capital improvement needs. This financial assistance is being provided to communities to identify capital improvement needs as well as increase their readiness to proceed in accomplishing these improvements.

Planning grants may be provided to publicly owned water supply systems serving 10,000 or fewer people. This includes any city, town, village, sanitary improvement district, natural resource district, or other public body created by or pursuant to state law having jurisdiction over a public water supply system. Privately owned water supply systems are not eligible for assistance.

Grants are provided for up to 90% of the costs for eligible preliminary engineering report services, but cannot exceed \$10,000 per system. Since its inception in FY2002, the Nebraska Environmental Partnerships Program, through the Drinking Water State Revolving Fund, has provided planning grants to 56 communities, for a total of \$553,800.

### **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. Funds provided in FY2006 included: \$12,687,405 for large projects; \$166,915 for small projects; \$606,090 for community lake restoration projects; \$239,100 for wellhead area management projects; and \$50,000 for urban run-off management.

# CHAPTER 10:

## Staffing

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

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

Recruiting qualified and experienced employees for the more advanced positions that require extensive education and experience remains a focus. The department feels fortunate to have recruited excellent staff in 2006.

Staff retention continues to be an important goal for the agency. Staff turnover can impact continuity in the department's programs and enforcement activities, and can cause additional costs for training of replacement staff members. The department 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.

Reaching Affirmative Action goals also remains a challenge. The department monitors our goals 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:

| <b>Employees Assuming Agency Positions (by Discipline)</b>   |           |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <i>These figures include new hires, promotions, transfers and classification upgrades for a one-year period. Figures for 2006 are from October 1, 2005 through September 30, 2006.</i> |           |           |           |           |           |           |           |           |           |           |           |
|  | 96        | 97        | 98        | 99        | 00        | 01        | 02        | 03        | 04        | 05        | 06        |
| Director/Deputy<br>Director/Assistant Director/<br>Division Administrator  | 0         | 0         | 1         | 4         | 0         | 0         | 0         | 0         | 1         | 0         | 0         |
| Section Supervisor   | 3         | 0         | 0         | 0         | 3         | 0         | 2         | 0         | 0         | 0         | 0         |
| Unit Supervisor/Records<br>Manager   | 3         | 1         | 3         | 0         | 4         | 3         | 0         | 2         | 2         | 1         | 1         |
| Human Resources  | 0         | 1         | 8         | 7         | 6         | 3         | 0         | 0         | 1         | 0         | 0         |
| Federal Aid Administrator,<br>Financial Assurance<br>Coordinator   | 1         | 0         | 1         | 2         | 0         | 0         | 2         | 1         | 2         | 2         | 0         |
| Clerical/Accounting  | 4         | 8         | 9         | 7         | 0         | 4         | 5         | 1         | 5         | 0         | 4         |
| Information Technology/Public<br>Information/Research Analyst  | 0         | 3         | 2         | 2         | 3         | 1         | 0         | 1         | 1         | 1         | 0         |
| Attorney   | 0         | 0         | 0         | 1         | 0         | 0         | 1         | 0         | 1         | 3         | 0         |
| Environmental Engineer   | 3         | 4         | 9         | 6         | 5         | 3         | 3         | 2         | 2         | 6         | 3         |
| Field Data Specialist  | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| Compliance Specialist  | 1         | 1         | 4         | 7         | 0         | 0         | 0         | 0         | 1         | 0         | 0         |
| Programs Specialist  | 7         | 9         | 21        | 5         | 12        | 6         | 6         | 7         | 2         | 12        | 7         |
| Geologist, Groundwater   | 1         | 0         | 2         | 0         | 0         | 1         | 1         | 1         | 4         | 1         | 3         |
| Environmental Assistance<br>Coordinator  |           |           |           |           |           |           |           | 1         | 1         | 0         | 0         |
|  |           |           |           |           |           |           |           |           |           |           |           |
| <b>TOTALS</b>  | <b>23</b> | <b>27</b> | <b>60</b> | <b>41</b> | <b>33</b> | <b>21</b> | <b>20</b> | <b>16</b> | <b>23</b> | <b>26</b> | <b>18</b> |

# CHAPTER 11:

## Financial Assurance Requirements

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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, or 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                    |
|---|------------|---------------|--------------|------------------|-----------------------------|------------------|------------------------------|
| <b>Municipal Solid Waste Disposal Areas (MSWDA), Sanitary Landfills (LF)</b>  |            |               |              |                  |                             |                  |                              |
| Alliance Landfill   | Alliance   | MSWDA         | 03/17/94     | \$ 2,634,879     | \$ 1,086,470                | Enterprise Fund  | City of Alliance             |
| Beatrice Landfill   | Beatrice   | Sanitary LF   | 07/12/00     | \$ 116,550       | \$ 116,550                  | Financial Test   | City of Beatrice             |
| Beatrice Area SW Agency   | Beatrice   | MSWDA         | 07/12/00     | \$ 2,748,500     | \$ 2,748,500                | Financial Test   | City of Beatrice             |
| Butler County Landfill  | David City | MSWDA         | 04/09/96     | \$ 3,453,084     | \$ 1,284,116                | Trust Fund       | Cornerstone Bank             |
| Douglas County Landfill   | Bennington | MSWDA         | 03/28/00     | \$ 10,604,231    | \$ 10,604,231               | Surety Bond      | Evergreen Ntl. Indemnity Co. |
| G & P Dev Landfill  | Milford    | MSWDA         | 07/01/96     | \$ 2,931,675     | \$ 1,894,498                | Trust Fund       | Cornerstone Bank             |
| Gering Landfill   | Gering     | MSWDA         | 02/13/96     | \$ 598,537       | \$ 407,455                  | Enterprise Fund  | City of Gering               |
| L.P. Gill Landfill  | Jackson    | MSWDA         | 04/09/96     | \$ 4,278,554     | \$ 1,793,965                | Trust Fund       | Security Natl. Bank          |
| Grand Island Landfill   | Grand Is.  | MSWDA         | 03/31/96     | \$ 7,816,600     | \$ 2,177,116                | Enterprise Fund  | City of Grand Island         |
| Hastings Area Landfill  | Hastings   | MSWDA         | 08/12/96     | \$ 3,355,799     | \$ 1,288,810                | Enterprise Fund  | City of Hastings             |
| Hastings Landfill   | Hastings   | Sanitary LF   | 10/01/97     | \$ 248,006       | \$ 21,899                   | Faith & Credit   | City of Hastings             |
| Holdrege Landfill   | Holdrege   | MSWDA         | 07/29/96     | \$ 2,256,902     | \$ 983,821                  | Enterprise Fund  | City of Holdrege             |
| J-Bar-J Landfill  | Ogallala   | MSWDA         | 03/28/00     | \$ 2,426,052     | \$ 2,426,052                | Performance Bond | Evergreen Ntl. Indemnity Co. |
| Kearney Landfill  | Kearney    | MSWDA         | 03/31/94     | \$ 1,480,379     | \$ 1,556,881                | Trust Fund       | Wells Fargo Bank             |
| Kimball Landfill  | Kimball    | MSWDA         | 05/10/96     | \$ 1,150,700     | \$ 397,308                  | Enterprise Fund  | City of Kimball              |
| Lexington Landfill  | Lexington  | Sanitary LF   | 07/25/96     | \$ 908,500       | \$ 458,182                  | Faith & Credit   | City of Lexington            |
| Lexington Area Agency   | Lexington  | MSWDA         | 01/19/97     | \$ 1,871,094     | \$ 809,527                  | Enterprise Fund  | Lexington Area SW Agency     |
| Lincoln Bluff Road  | Lincoln    | MSWDA         | 04/01/96     | \$ 13,020,476    | \$ 13,020,476               | Financial Test   | City of Lincoln              |
| Loup Central Landfill   | Elba       | MSWDA         | 04/09/96     | \$ 1,369,150     | \$ 480,300                  | Trust Fund       | Citizens Bank & Tr St. Paul  |
| McCook Landfill   | McCook     | Sanitary LF   | 03/04/96     | \$ 848,610       | \$ 80,820                   | Faith & Credit   | City of McCook               |
| Minden Disposal Area  | Minden     | Sanitary LF   | 11/18/96     | \$ 295,520       | \$ 70,890                   | Faith & Credit   | City of Minden               |
| NE Ecology Landfill   | Geneva     | MSWDA         | 07/01/96     | \$ 1,367,074     | \$ 412,091                  | Trust Fund       | Cornerstone Bank             |
| NNSWC Landfill  | Clarkson   | MSWDA         | 04/09/96     | \$ 10,694,315    | \$ 2,796,849                | Enterprise Fund  | NNSWC                        |
| Pheasant Point Landfill   | Bennington | MSWDA         | 08/01/03     | \$ 17,848,232    | \$ 17,848,232               | Surety Bond      | Evergreen Ntl. Indemnity Co. |
| Sarpy County Landfill   | Papillion  | MSWDA         | 03/31/96     | \$ 6,132,764     | \$ 6,266,837                | Enterprise Fund  | Sarpy County                 |
| Sidney Landfill   | Sidney     | MSWDA         | 02/11/97     | \$ 2,360,265     | \$ 484,515                  | Enterprise Fund  | City of Sidney               |
| SWANN Landfill  | Chadron    | MSWDA         | 9/25/97      | \$ 1,225,205     | \$ 323,029                  | Enterprise Fund  | SWANN                        |
| Valentine Landfill  | Valentine  | MSWDA         | 04/09/96     | \$ 1,119,161     | \$ 240,964                  | Enterprise Fund  | City of Valentine            |
| York Landfill   | York       | Sanitary LF   | 05/14/96     | \$ 27,735        | \$ 9,635                    | Faith & Credit   | City of York                 |
| York Area SW Landfill   | York       | MSWDA         | 05/14/96     | \$ 2,373,978     | \$ 807,377                  | Enterprise Fund  | City of York                 |
| *MSWDAs are landfills that are operating under current solid waste management regulations.<br>**Sanitary LFs are closed facilities that have post-closure monitoring and maintenance. |            |               |              |                  |                             |                  |                              |
| <b>Construction/Demolition Landfills</b>  |            |               |              |                  |                             |                  |                              |
| Abe's Trash Service   | Blair      | Const./Demol. | 03/30/98     | \$ 114,075       | \$ 114,075                  | Escrow Account   | Bank of Bennington           |
| Alliance C & D Landfill   | Alliance   | Const./Demol. | 12/02/99     | \$ 123,987       | \$ 14,385                   | Enterprise Fund  | City of Alliance             |
| Anderson Excavating   | Omaha      | Const./Demol. | 10/19/98     | \$ 211,826       | \$ 211,826                  | Surety Bond      | Employers Mutual Cas. Co.    |

## NDEQ FINANCIAL ASSURANCE

| Facility Name   | Location     | Permit Type      | Initial Date | Obligated Amount | Current Amount Demonstrated | FA Mechanism     | Guarantor                    |
|---|--------------|------------------|--------------|------------------|-----------------------------|------------------|------------------------------|
| Arnold C & D  | Arnold       | Const./Demol.    | 07/24/00     | \$ 15,400        | \$ 5,981                    | Enterprise Fund  | Village of Arnold            |
| Bud's Sanitary Service  | Newman Grove | Const./Demol.    | 06/01/97     | \$ 31,689        | \$ 31,689                   | Letter of Credit | First Natl. Bank Newman Gr   |
| Butler County   | David City   | Const./Demol.    | 06/01/97     | \$ 182,346       | \$ 182,346                  | Surety Bond      | Evergreen Ntl. Indemnity Co. |
| Gage County   | Beatrice     | Const./Demol.    | 02/23/98     | \$ 185,714       | \$ 185,714                  | Letter of Credit | 1st Natl. Bank, Beatrice     |
| Hawkins Construction  | Omaha        | Const./Demol.    | 3/9/96       | \$ 67,234        | \$ 67,234                   | Surety Bond      | Fireman's Fund Ins. Co.      |
| KGP Services  | Norfolk      | Const./Demol.    | 11/06/03     | \$ 37,099        | \$ 37,099                   | Escrow Account   | Elkhorn Valley Bank & Trust  |
| Kimball C & D Landfill  | Kimball      | Const./Demol.    | 04/01/01     | \$ 44,406        | \$ 20,085                   | Enterprise Fund  | City of Kimball              |
| Lexington C & D   | Lexington    | Const./Demol.    | 09/30/98     | \$ 145,476       | \$ 78,420                   | Enterprise Fund  | Lexington Area SW Agency     |
| Limited Fill  | Omaha        | Const./Demol.    | 04/30/97     | \$ 68,891        | \$ 64,345                   | Trust Agreement  | First Natl. Bank, Omaha      |
| Lincoln North 48th St.  | Lincoln      | Const./Demol.    | 04/01/96     | \$ 1,000,210     | \$ 1,000,210                | Financial Test   | City of Lincoln              |
| Loup Central C & D  | Elba         | Const./Demol.    | 04/09/96     | \$ 28,078        | \$ 14,692                   | Trust Fund       | Citizens Bank & Tr. St. Paul |
| NPPD Gerald Gentleman   | Sutherland   | Const./Demol.    | 04/01/95     | \$ 125,333       | \$ 125,333                  | Financial Test   | NPPD                         |
| O'Neill C & D Landfill  | O'Neill      | Const./Demol.    | 06/01/01     | \$ 53,560        | \$ 17,840                   | Enterprise Fund  | City of O'Neill              |
| PAD LLC   | Hastings     | Const./Demol.    | 06/05/02     | \$ 138,618       | \$ 138,618                  | Letter of Credit | Five Points Bank             |
| Plainview C & D   | Plainview    | Const./Demol.    | 09/26/00     | \$ 23,721        | \$ 23,052                   | Enterprise Fund  | City of Plainview            |
| Schmader C & D  | West Point   | Const./Demol.    | 05/05/04     | \$ 97,028        | \$ 97,028                   | Letter of Credit | Charter West Ntl Bank        |
| Sidney C & D  | Sidney       | Const./Demol.    | 11/23/99     | \$ 92,632        | \$ 23,862                   | Enterprise Fund  | City of Sidney               |
| SW NE Solid Waste Agency  | Imperial     | Const./Demol.    | 06/01/01     | \$ 36,679        | \$ 15,299                   | Enterprise Fund  | City of Imperial             |
| Three Rivers C & D  | Indianola    | Const./Demol.    | 07/25/00     | \$ 73,915        | \$ 15,282                   | Trust Agreement  | Adams Bank & Trust           |
| <b>Fossil Fuel Combustion Ash (Ash Landfill), Industrial Waste Landfills, Monofills</b> |              |                  |              |                  |                             |                  |                              |
| Ash Grove Cement Co.  | Louisville   | Indus. Waste     | 03/01/03     | \$ 5,337,487     | \$ 5,337,487                | Financial Test   | Ash Grove                    |
| Clean Harbors Technology  | Kimball      | Monofill         | 08/01/95     | \$ 2,876,168     | \$ 2,876,168                | Insurance Policy | Steadfast Insurance Co.      |
| Fremont Utilities   | Fremont      | Ash Landfill     | 05/28/96     | \$ 237,192       | \$ 500,000                  | Enterprise Fund  | City of Fremont              |
| Hastings Utilities  | Hastings     | Ash Landfill     | 2/1/01       | \$ 429,813       | \$ 332,291                  | Enterprise Fund  | City of Hastings             |
| NPPD Gerald Gentleman 4   | Sutherland   | Ash Landfill     | 04/01/95     | \$ 1,014,892     | \$ 1,014,892                | Financial Test   | NPPD                         |
| NPPD Sheldon Station 3  | Sheldon      | Ash Landfill     | 04/01/95     | \$ 119,441       | \$ 119,441                  | Financial Test   | NPPD                         |
| NPPD Sheldon Station 4  | Sheldon      | Ash Landfill     | 07/01/01     | \$ 431,077       | \$ 431,077                  | Financial Test   | NPPD                         |
| OPPD NE City  | NE City      | Ash Landfill     | 04/04/95     | \$ 3,987,795     | \$ 3,987,795                | Financial Test   | OPPD                         |
| OPPD North Omaha  | Omaha        | Ash Landfill     | 04/04/95     | \$ 960,020       | \$ 960,020                  | Financial Test   | OPPD                         |
| OPPD Fort Calhoun (IW)  | Ft. Calhoun  | Indus. Waste     | 04/04/95     | \$ 249,810       | \$ 249,810                  | Financial Test   | OPPD                         |
| Platte Generation   | Grand Island | Ash Landfill     | 08/25/97     | \$ 191,660       | \$ 186,676                  | Enterprise Fund  | City of Grand Island         |
| Waste Management  | Bennington   | Indus. Waste     | 04/01/02     | \$ 2,793,870     | \$ 2,793,870                | Surety Bond      | Evergreen Ntl. Indemnity Co. |
| <b>Transfer Stations, Material Recovery Facilities, Compost Sites</b>                   |              |                  |              |                  |                             |                  |                              |
| Bud's Sanitary Service  | Newman Gr.   | Transfer Station | 07/08/94     | \$ 3,494         | \$ 3,494                    | Letter of Credit | First Natl. Bank, NG         |
| Butler County MRF   | David City   | Mat. Recovery    | 08/15/03     | \$ 6,900         | \$ 6,900                    | Surety Bond      | Evergreen Ntl. Indemnity Co. |
| Central Sanitation  | Cenral City  | Transfer Station | 07/02/03     | \$ 10,523        | \$ 10,523                   | Surety Bond      | Platte River Ins Co.         |
| Custer Transfer Station   | Broken Bow   | Transfer Station | 06/27/94     | \$ 6,867         | \$ 6,867                    | Letter of Credit | NE State Bank & Trust        |

## NDEQ FINANCIAL ASSURANCE

| Facility Name                              | Location      | Permit Type      | Initial Date | Obligated Amount | Current Amount Demonstrated | FA Mechanism     | Guarantor                     |
|--|---------------|------------------|--------------|------------------|-----------------------------|------------------|-------------------------------|
| Doernamann Const. Co.                      | Clarkson      | Compost          | 12/15/99     | \$ 79,499        | \$ 79,499                   | Letter of Credit | Clarkson Bank                 |
| Fremont CRD, Inc.                          | Fremont       | Transfer Station | 04/09/96     | \$ 12,875        | \$ 12,875                   | Surety Bond      | American Guar & Liability Co  |
| King Transfer Station                      | Walthill      | Transfer Station | 04/02/96     | \$ 583           | \$ 591                      | Escrow Account   | First Natl. Bank, Walthill    |
| J & J Sanitation                           | Ord           | Transfer Station | 09/22/00     | \$ 6,813         | \$ 6,816                    | Surety Bond      | Capitol Indemnity Corp        |
| River City Recycling                       | Omaha         | Mat. Recovery    | 01/01/01     | \$ 30,770        | \$ 30,770                   | Escrow Account   | US Bank Ntl Assoc             |
| Sanitation Systems                         | Wilber        | Transfer Station | 07/03/03     | \$ 5,538         | \$ 5,538                    | Surety Bond      | Capitol Indemnity Corp        |
| Seneca Sanitation                          | Dubois        | Transfer Station | 03/07/96     | \$ 3,700         | \$ 3,700                    | Letter of Credit | First Natl. Bank, Centralia   |
| Saunders County San.                       | Wahoo         | Transfer Station | 07/02/03     | \$ 5,917         | \$ 5,917                    | Surety Bond      | Capitol Indemnity Corp        |
| Tracy MRF                                  | York          | Mat. Recovery    | 04/01/03     | \$ 3,982         | \$ 3,982                    | Letter of Credit | Cornerstone Bank              |
| Waste Connections of NE                    | Bridgeport    | Transfer Station | 08/15/03     | \$ 6,869         | \$ 6,869                    | Surety Bond      | Evergreen Ntl. Indemnity Co.  |
| Waste Connections of NE                    | Gering        | Transfer Station | 08/15/03     | \$ 14,740        | \$ 14,740                   | Surety Bond      | Evergreen Ntl. Indemnity Co.  |
| <b>RCRA Closure and RCRA Post-Closure</b>  |               |                  |              |                  |                             |                  |                               |
| Agromac International                      | Gering        | Post-Closure     | 09/29/87     | \$ 8,725         | \$ 8,725                    | Letter of Credit | Platte Valley Ntl. Bank       |
| Behlen Manufacturing Co.                   | Columbus      | Post-Closure     | 08/30/94     | \$ 269,480       | \$ 269,480                  | Financial Test   | Behlen Mfg. Co.               |
| Clean Harbors Technology                   | Kimball       | Closure          | 05/10/95     | \$ 10,431,901    | \$ 10,431,901               | Insurance Policy | Steadfast Insurance Co.       |
| Douglas County Landfill                    | Omaha         | Post-Closure     | 03/08/85     | \$ 933,669       | \$ 933,669                  | Trust Fund       | First Natl Bank of Omaha      |
| Eaton Corporation                          | Omaha         | Post-Closure     | 03/27/84     | \$ 4,463,158     | \$ 4,463,158                | Letter of Credit | Key Bnk Ntl. Assoc.           |
| Malnove Corporation                        | Omaha         | Post-Closure     | 10/05/89     | \$ 216,240       | \$ 216,240                  | Letter of Credit | Wells Fargo                   |
| Tenneco Automotive Inc.                    | Cozad         | Post-Closure     | 11/25/85     | \$ 1,411,000     | \$ 1,411,000                | Letter of Credit | Chase Manhattan Bank          |
| Safety Kleen                               | Grand Island  | Closure          | 10/15/01     | \$ 168,372       | \$ 168,372                  | Insurance Policy | Indian Harbors Insurance Co.  |
| Safety Kleen                               | Omaha         | Closure          | 10/15/01     | \$ 378,440       | \$ 378,440                  | Insurance Policy | Indian Harbors Insurance Co.  |
| Telex Communications                       | Lincoln       | Post-Closure     | 10/27/88     | \$ 236,450       | \$ 236,450                  | Letter of Credit | Wachovia Bank                 |
| Valmont Industries                         | Valley        | Post-Closure     | 10/30/85     | \$ 900,000       | \$ 900,000                  | Financial Test   | Valmont Industries            |
| Vantage Agriservice                        | Syracuse      | Closure          | 02/15/06     | \$ 44,400        | \$ 44,400                   | Letter of Credit | American Exchange Bank        |
| Van Diest Suppy Liquid Plant               | McCook        | Closure          | 02/16/06     | \$ 1,463,334     | \$ 1,463,334                | Letter of Credit | 1st State Bank Webster Cty IA |
| <b>Underground Injection Control (UIC)</b> |               |                  |              |                  |                             |                  |                               |
| Crow Butte Resources, Inc.                 | Crawford      | UIC              |              | \$ 19,799,289    | \$ 19,799,289               | Letter of Credit | Royal Bank of Canada          |
| <b>Scrap Tire Sites and Haulers</b>        |               |                  |              |                  |                             |                  |                               |
| ABC Tire LLC*                              | Kansas C, KS  | Scrap Tire       | 06/15/06     | \$ 10,000        | \$ 10,000                   | Surety Bond      | United Fire & Casualty Co.    |
| Butler County Landfill                     | David City    | Scrap Tire       | 05/16/97     | \$ 128,625       | \$ 128,625                  | Surety Bond      | Travelers Casualty & Surety   |
| Champlin Tire Recycling Inc*               | Concordia KS  | Scrap Tire       | 10/04/96     | \$ 10,000        | \$ 10,000                   | Letter of Credit | United Bank & Trust           |
| David's Tire*                              | Nevada, MO    | Scrap Tire       | 12/20/05     | \$ 10,000        | \$ 10,000                   | Surety Bond      | Ohio Casualty                 |
| Don's New & Used Tires                     | Lincoln       | Scrap Tire       | 03/13/03     | \$ 5,000         | \$ 5,000                    | Surety Bond      | Old Republic Surety Co.       |
| Double A Trucking                          | Shelby        | Scrap Tire       | 06/05/06     | \$ 10,000        | \$ 10,000                   | Letter of Credit | Bank of the Valley            |
| EnTire Recycling Inc                       | Brock         | Scrap Tire       | 04/21/96     | \$ 10,000        | \$ 10,000                   | Letter of Credit | The First National Bank       |
| GreenMan Tech of IA*                       | Des Moines IA | Scrap Tire       | 11/21/02     | \$ 10,000        | \$ 10,000                   | Escrow Account   | Wells Fargo                   |
| GreenMan Tech of MN*                       | Savage MN     | Scrap Tire       | 07/01/97     | \$ 5,000         | \$ 5,000                    | Escrow Account   | Wells Fargo                   |

## NDEQ FINANCIAL ASSURANCE

| Facility Name             | Location       | Permit Type | Initial Date | Obligated Amount | Current Amount Demonstrated | FA Mechanism     | Guarantor                     |
|---------------------------|----------------|-------------|--------------|------------------|-----------------------------|------------------|-------------------------------|
| J & B Trucking            | Brainard       | Scrap Tire  | 04/01/06     | \$ 5,000         | \$ 5,000                    | Letter of Credit | Bank of the Valley            |
| J & M Steel               | Hastings       | Scrap Tire  | 08/27/98     | \$ 5,000         | \$ 5,000                    | Letter of Credit | 1st Bank & Trust, Clay Center |
| Kenny Frazier*            | Edmond OK      | Scrap Tire  | 05/26/04     | \$ 5,000         | \$ 5,000                    | Escrow Account   | Bank of America, Inc.         |
| Lee Pester                | Lincoln        | Scrap Tire  | 07/01/96     | \$ 5,000         | \$ 5,000                    | Surety Bond      | Old Republic Surety Co.       |
| Leo Porter                | Oshkosh        | Scrap Tire  | 06/09/00     | \$ 5,000         | \$ 5,000                    | Letter of Credit | Nebraska State Bank           |
| Marty Lukassen            | Mitchell       | Scrap Tire  | 03/03/03     | \$ 5,000         | \$ 5,000                    | Surety Bond      | Union Insurance Co.           |
| Nebraska Rubber Innovatio | O'Neill        | Scrap Tire  | 02/03/00     | \$ 20,000        | \$ 20,000                   | Letter of Credit | Marquette Bank Nebraska       |
| ReSolve                   | Wisner         | Scrap Tire  | 03/28/06     | \$ 10,000        | \$ 10,000                   | Letter of Credit | Citizens National Bank        |
| Resource Management Co*   | Brownell, KS   | Scrap Tire  | 06/08/99     | \$ 10,000        | \$ 10,000                   | Letter of Credit | First State Bank, Ness Cy, KS |
| River City Recycling      | Omaha          | Scrap Tire  | 09/07/99     | \$ 43,750        | \$ 43,750                   | Letter of Credit | US Bank Ntl Assoc, Omaha      |
| Tire Cutters*             | Centralia KS   | Scrap Tire  | 11/10/03     | \$ 5,000         | \$ 5,000                    | Letter of Credit | 1st Natl. Bank, Centralia, KS |
| Tire Energy*              | Odessa, MO     | Scrap Tire  | 07/12/05     | \$ 10,000        | \$ 10,000                   | Letter of Credit | Bank of Odessa, MO            |
| Tire Town, Inc.*          | Leavenworth KS | Scrap Tire  | 03/15/96     | \$ 5,000         | \$ 5,000                    | Letter of Credit | First Commercial Bank         |

\* Out-of-state tire hauler that either transports tires to or from sites in Nebraska. Financial assurance of \$5,000 or \$10,000 is required, based on volume transported.