



**Nebraska
Department of
Environment
and Energy**

2020 Annual
Report to the
Legislature

More information about the Nebraska Department of Environment and Energy

With the passage of LB302, on July 1, 2019, the Nebraska Department of Environmental Quality and the Nebraska Energy Office merged into the Nebraska Department of Environment and Energy. Our mission is to protect, preserve and enhance Nebraska's Air, Land, Water, and Energy resources. We enforce regulations and provide assistance, but to fully accomplish this vital mission we need your assistance. We encourage you to work with us to ensure future generations can use and enjoy the precious natural resources we enjoy today.

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Visit our website at <http://dee.ne.gov> to view the agency's:

- News releases
- Calendar of events
- Job listings
- Topics of interest
- Agency information
- Rules and regulations
- Fact sheets and other publications
- Program information
- Public notices
- Enforcement resolutions

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CHAPTER 1:

Agency Overview

In July 2019, the Nebraska Department of Environmental Quality (NDEQ) and the Nebraska Energy Office merged into the Nebraska Department of Environment and Energy (NDEE). The agency was originally created with the passage of the Environmental Protection Act in 1971. At that time, the agency was called the Nebraska Department of Environmental Control, and later became NDEQ in 1992. Our vision is everyone living, working and enjoying a healthy Nebraska environment. Our stated mission is to protect and improve human health, the environment and energy resources.

This report focuses on activities occurring in state fiscal year 2020 (July 1, 2019, to June 30, 2020). During FY2020, NDEE was authorized for a staffing level of 227 full-time employees. Through a memorandum of agreement with the Nebraska Department of Health and Human Services (DHHS), 43 DHHS employees were placed with the agency to improve coordination between the Safe Drinking Water Act and Clean Water Act programs.

The NDEE has an FY2020 annual budget of approximately \$82 million. This includes money from federal grants, state taxes, and fees.

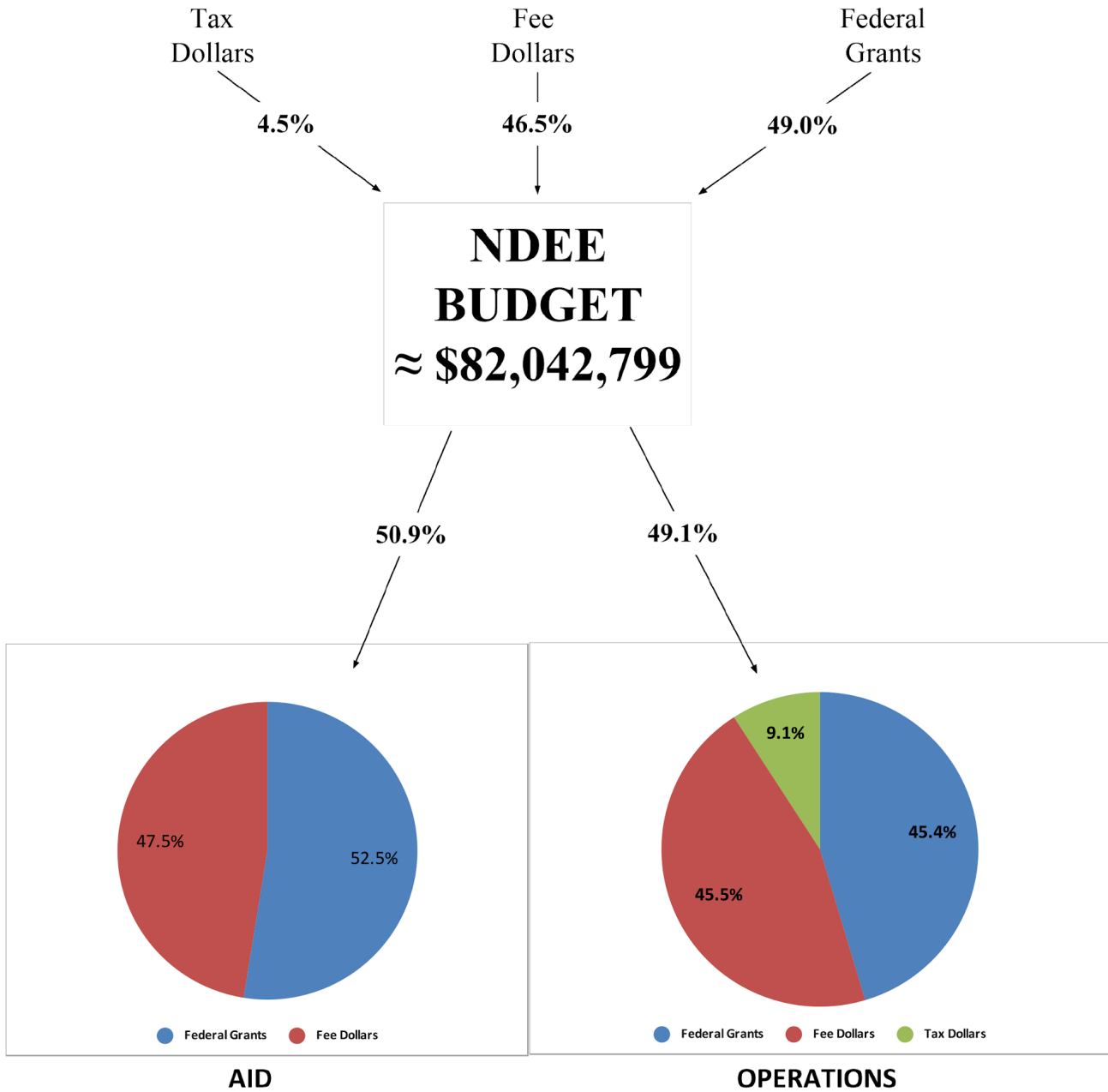
The table below shows a breakdown of NDEE funds. The columns listed as aid represent the agency's budget redistributed to other agencies, organizations, and individuals as grants and loans. The columns listed as operations represent amounts used for agency operation and contracts for such things as investigations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

Funding Type	Operations: \$ Amount	Percent of Operations Budget	Aid: \$ Amount	Percent of Aid Budget
Federal Funds (Grants)	\$18.3 million	45.4%	\$21.9 million	52.5%
State General Funds (Tax \$)	\$3.7 million	9.1%	\$0 million	0.00%
Cash Funds (Fees)	\$18.3 million	45.5%	\$19.80 million	47.5%
Total	\$40.3 million		\$41.7 million	

The following graphic depicts NDEE's FY2020 budget by funding source and percent expended by fund type and activity (aid or operations).



FY20 Budget



FTE = 227

Significant Topics in 2020

The following are some of the significant topics, challenges and accomplishments that NDEE addressed in 2020:

Strategic planning

Agency leadership started strategic planning efforts in August 2019 to update NDEE's vision and mission statements and provide the agency a compass for the next one to five years. The idea germinated in 2015 after Director Jim Macy joined the agency as a more intentional way for NDEE to operate. This is the first time NDEE has used a formal strategic planning process.

Strategic planning affects both internal and external components of NDEE functions. Internally, it addresses areas in need of improvement and helps teammates work more efficiently. It also allows teammates and team leaders to focus on the future and process improvement in addition to day-to-day tasks. On an external level, it enables NDEE to take a more proactive approach to serving Nebraskans' needs by planning and allocating resources as needed.

The strategic planning team is comprised of 11 of the agency leadership positions and one coordinator. First, members learned how to strategically plan by working with a strategic planning consultant. The process involved conducting teambuilding and planning exercises, discussing the agency's role and values and assessing Nebraska's environment and energy resources. This allowed the team to develop vision and mission statements, core values and strategic focuses. See the next page for a complete list of these items.

Staff members participated in the process by submitting over 180 ideas for improvement, which the strategic planning team categorized into strategic or operational categories. Operational tasks are work that NDEE staff completes on a daily basis, while strategic tasks are what NDEE staff wants to do or is capable of doing. The strategic items were placed into one of seven focus areas and the team voted to prioritize the items as low, medium or high priority. Finally, the strategic items were assigned to one of eight task leaders within the agency. The team assigned 20 tasks as high priority and started working on the most important of these items.

The strategic plan document, made up of the list of tasks, is assessed and updated quarterly. The team follows a process of assessing and prioritizing new ideas alongside the current plan, with a goal for high-priority items to be addressed within a year. The team's intent is to align teammates' daily tasks and roles with the strategic plan.

At the beginning of strategic year 2021 on Oct. 1, 2020, the strategic planning team built a one-year plan based on strategic focuses and prioritized tasks. A chart showing the proposed, in progress and completed projects for 2021 strategic planning is below. In the future, the team plans to develop a five-year plan, further clarify the definition of a strategic task and consider feedback on a quarterly instead of yearly basis.

Vision: Everyone living, working, and enjoying a healthy Nebraska environment.

Mission: To protect and improve human health, the environment, and energy resources. We will accomplish this through assessing, assisting, inspecting, educating, enforcing, funding, monitoring, permitting, and restoring.



Core Values

- **Integrity:** Honest, accountable, consistent
- **Excellence:** Customer focused; commitment to quality
- **Teamwork:** Working together towards a common goal
- **Innovation:** Open to new ideas and continuous improvement
- **Communication:** Sharing information; respectful; active listening

Strategic Focuses

Focus 1: Personnel

Assess, develop, and implement personnel programs that support professional development, succession planning, training, and talent management.

Focus 2: Equipment

Identify new requirements and maintain current equipment to increase effectiveness, efficiencies, and utilization.

Focus 3: Funding

Identify and pursue the best funding options to ensure stability.

Focus 4: Innovation

Find creative and thoughtful approaches to fulfill our mission and support measurable improvements.

Focus 5: New Requirements

Develop and implement a consistent process to identify, assess, and prioritize new programs and requirements which supports our vision of a healthy environment.

Focus 6: Change

Improve individual and organizational resilience to change by developing enhanced methods of awareness, adaptiveness, and proactiveness.

Focus 7: Communication

Establish a comprehensive internal and external communication plan which is intentional and proactive.

Operating in a Pandemic

Keeping teammates safe while continuing to serve the state have been priorities for NDEE throughout the COVID-19 pandemic. The World Health Organization declared Covid-19 a global health emergency on Jan. 30, 2020 and the first case was reported in Nebraska on March 6, 2020.

NDEE staff stayed flexible and receptive to ever-changing information through the pandemic. Management team members evaluated available health information and the work environment to minimize risk while keeping operations open. Social distancing, sanitizing and mask wearing measures were stressed to curtail transmission rates.

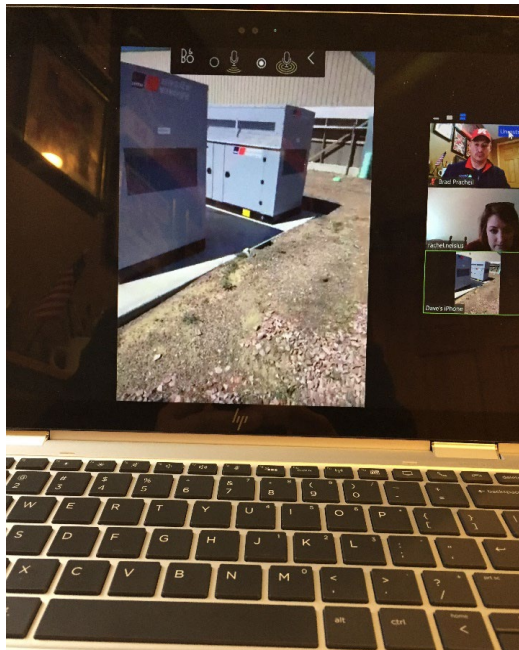
By mid-March, NDEE teammates began piloting a successful telework plan. The management team transitioned staff to a remote working environment as two groups alternated between working from home and in the office, with a third immunocompromised group working exclusively from home. From early April to mid-July most of the agency's staff of over 200 members worked from home, allowing a small contingent of teammates to provide essential support at the office in a socially distanced manner.

Since returning to the office in July, staff members continue to socially distance, use virtual meetings when possible and wear masks in shared areas. Field operations then resumed in August 2020.

In retrospect, teammates proved their resilient nature, and that teleworking during a pandemic can be successful and productive. Because of NDEE's proactive measures, there have been few COVID-19 exposures among teammates.

Virtual inspections

NDEE programs had to think outside the box as the agency explored new ways to carry out its regulatory responsibilities during the pandemic. Working remotely encouraged teammates to try out virtual inspections as a new method to evaluate how permitted facilities are meeting their regulatory requirements. Programs in the Air Quality and Water Permits Divisions used this technique for a



This photo shows an Air Compliance Section virtual inspection, conducted through video conferencing.

number of their inspections. Electronic technologies like video conferencing with mobile devices virtually put inspectors inside a permitted facility.

For the Air Compliance Section, inspectors make the virtual experience as similar as possible to an in-person meeting, with the same procedures. The inspection includes a records review, permit and federal rules review, facility tour and exit meeting. For the tour, NDEE staff requests to see some or all of the facility's permitted emission points through a mobile phone or tablet.

Nebraska Department of Health and Human Services sanitarians, co-located in the Water Permits Division of NDEE, also used virtual inspections for certain child care facility sanitation inspections. Inspectors were able to conduct their reviews without unnecessarily exposing the children, facility workers or themselves to the virus. Sanitarians inspecting recreation camps used a combination of virtual and in-person inspection methods.

Although the lifting of some lockdown restrictions in August has made in-person inspections possible again, NDEE staff members are optimistic that this virtual

counterpart can enhance their productivity. It is a new tool that will be especially helpful for facilities that are generally in compliance with regulations and/or in distant locations across the state.

Onsite certification exams

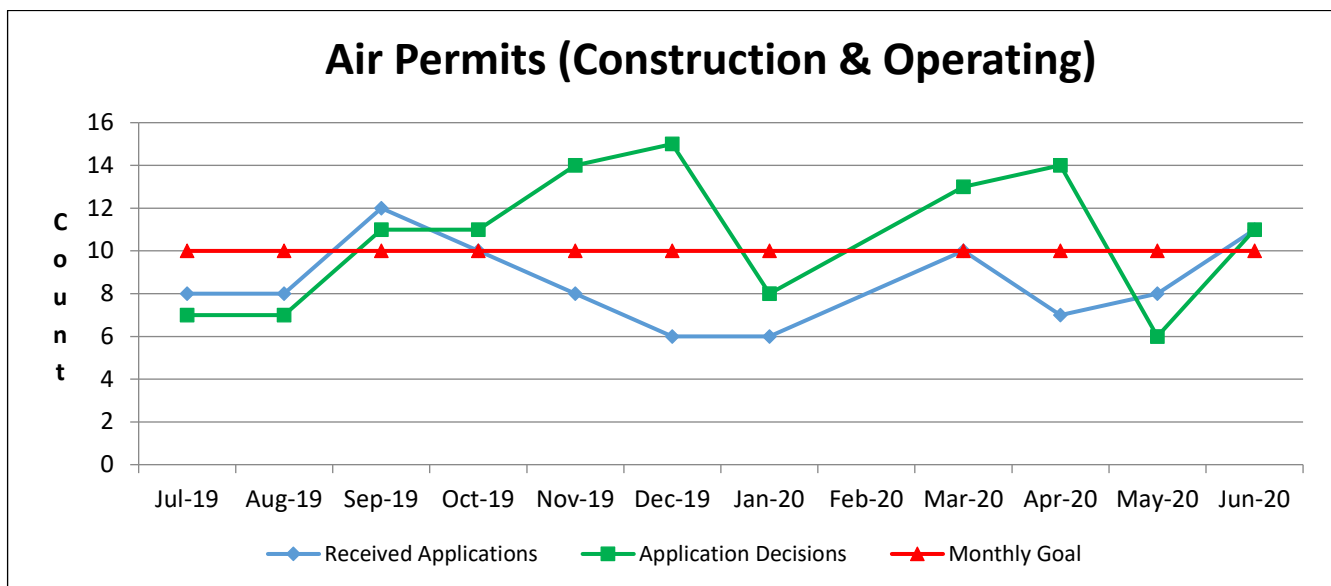
In early June 2020, the Onsite Wastewater/Operator Certification Section postponed in-person Onsite certification exams and provided web-based testing. On Aug. 28, 2020 potential wastewater operators could take the Wastewater Operator Certification Exam at PSI testing centers across the state.

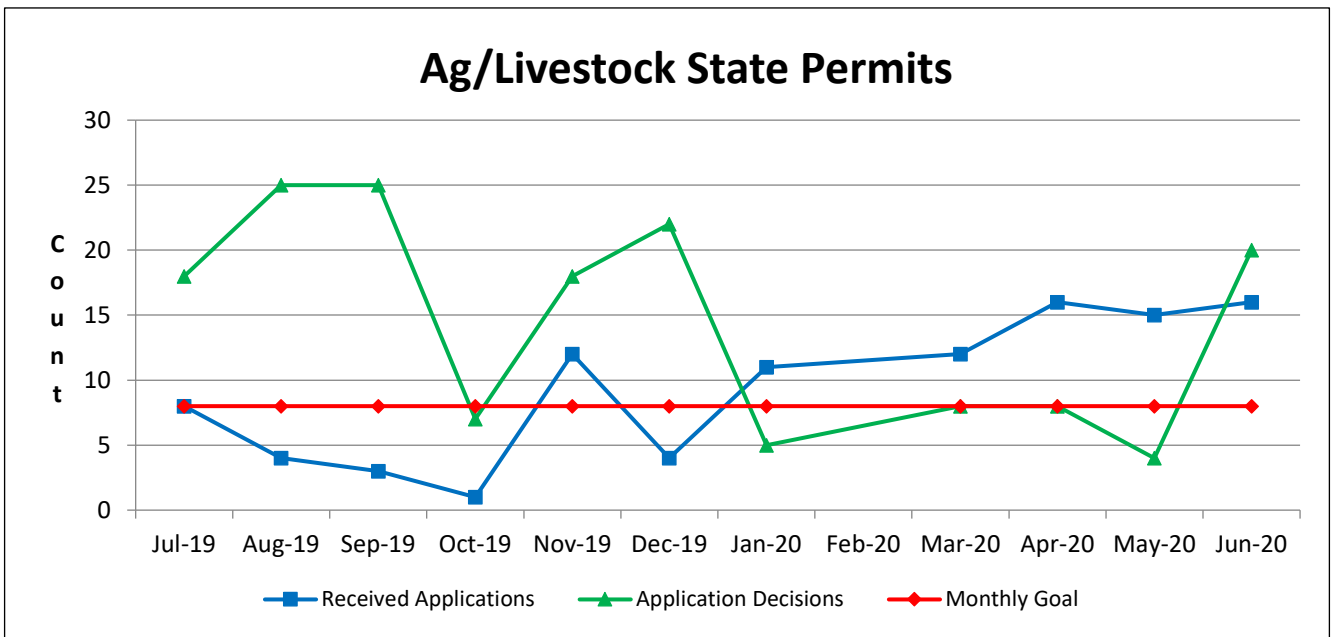
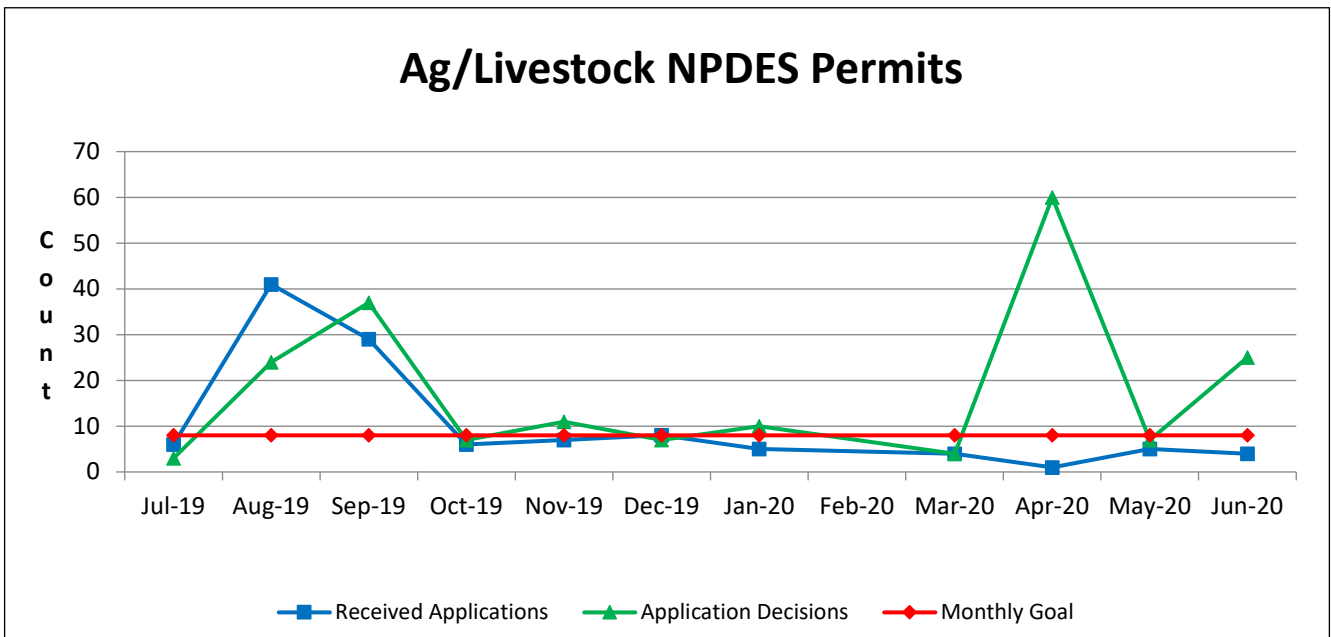
Communications

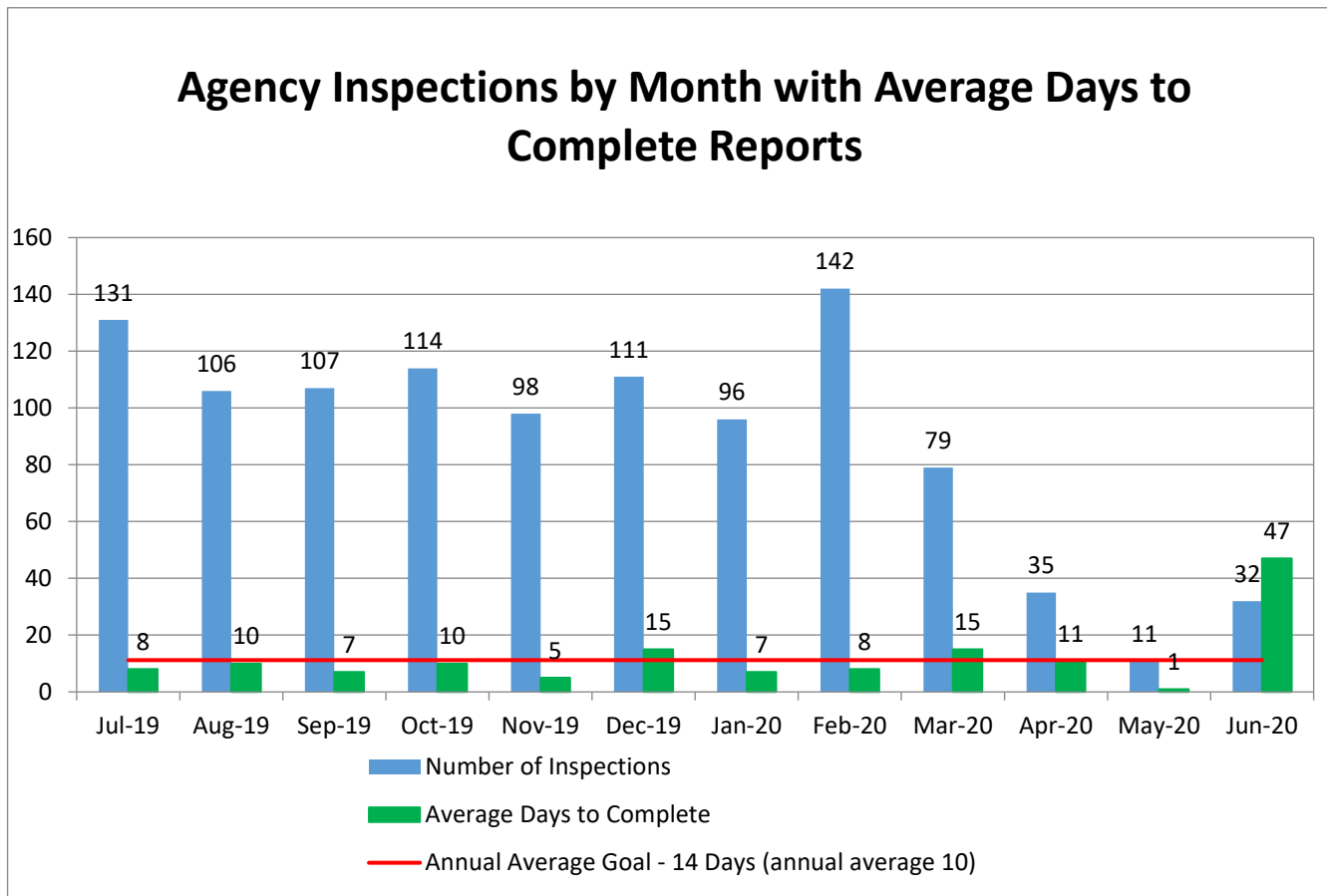
NDEE coordinated with groups such as the Joint Information Center and the State Emergency Operations Center to regularly share information. NDEE published agency updates on <http://deq.ne.gov/NDEQProg.nsf/onWeb/COVID> and social media channels. These measures ensured the public would stay informed even through rapidly changing news. The COVID-19 webpage provides a hub for NDEE-related information.

Agency Annual Statistics

The following charts show statistics from state fiscal year 2020 (July 1, 2019 to June 30, 2020) related to Air Construction and Operating Permits, Ag/Livestock State Permits and Agency Inspections. The charts represent a monthly snapshot of agency permitting and inspection activities. The permit charts are dependent upon applications received and seasonal fluctuations in facility operations. Inspections were lower in the spring of 2020 due to restrictions the agency placed on the compliance/inspection staff based on CDC and local health measures for the protection of our staff and facility operations. Throughout the year, the agency is generally meeting the goals for these areas. This information is updated monthly and can be found on the agency website <http://dee.ne.gov> by selecting the [Monthly Metrics](#) link.







2020 Legislative Summary

The Nebraska Legislature enacted two legislative bills in 2020 that had direct impact on NDEE:

LB 858 – This enacted legislation was originally introduced to modernize the Municipal Cooperative Financing Act; it later it became a vehicle for four additional bills, two of which address NDEE Program statutes. As enacted, LB 858 includes the provisions of LB 367 which extends the sunset date for the Nebraska Litter Reduction and Recycling Act from October 30, 2020 to September 30, 2025 and removes the Legislature’s ability to transfer money out of the Nebraska Litter Reduction and Recycling Fund. The bill also includes provisions of LB 856 which extends the sunset date for the Nebraska Petroleum Release Remedial Action Cash Fund four years from June 30, 2020 to June 30, 2024.

LB 632 – The original contents of LB 632 bill were replaced with provisions of four bills. One of the bills, LB 861, amended the Integrated Solid Waste Management Act to impose uniform state container requirements and encourage secondary use processes by such means as pyrolysis and biomass. LB 861 adds a new definition for “container” to the Act and prohibits cities, counties, or agencies from administering any ordinance or resolution that sets other standards, fees, prohibitions or requirements for the sale, use, or marketing of containers other than those found in the Act. The bill does not apply to county, municipality or agency recycling or solid waste collection programs.

CHAPTER 2:

Administration/Legal/ Management Services

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

Administrators

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

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

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

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

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

Legal Division

The Legal Division provides legal and other assistance to the Director, Agency, and Environmental Quality Council. Legal Division responsibilities include:

- Preparing administrative orders and other enforcement actions for the Agency;
- Coordinating Agency response to variance requests;
- Representing the Agency in administrative proceedings;
- Preparing judicial referrals to the Attorney General;
- Assisting the Attorney General as requested;
- Serving as hearing officers for public and administrative contested case hearings;
- Drafting and reviewing proposed legislation, rules and regulations;
- Supporting agency legislative activities, governmental liaison and outreach;
- Preparing legal opinions interpreting federal and state laws and regulations;
- Coordinating rule and regulation review and development;
- Advising the Director and Agency staff on duties and program responsibilities;

- Advising the Environmental Quality Council as requested;
- Drafting and reviewing contracts, leases, environmental covenants, and other legal documents,
- Reviewing other Agency documents; and
- Representing the Director and Agency as requested by the Director.

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

Management Services

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

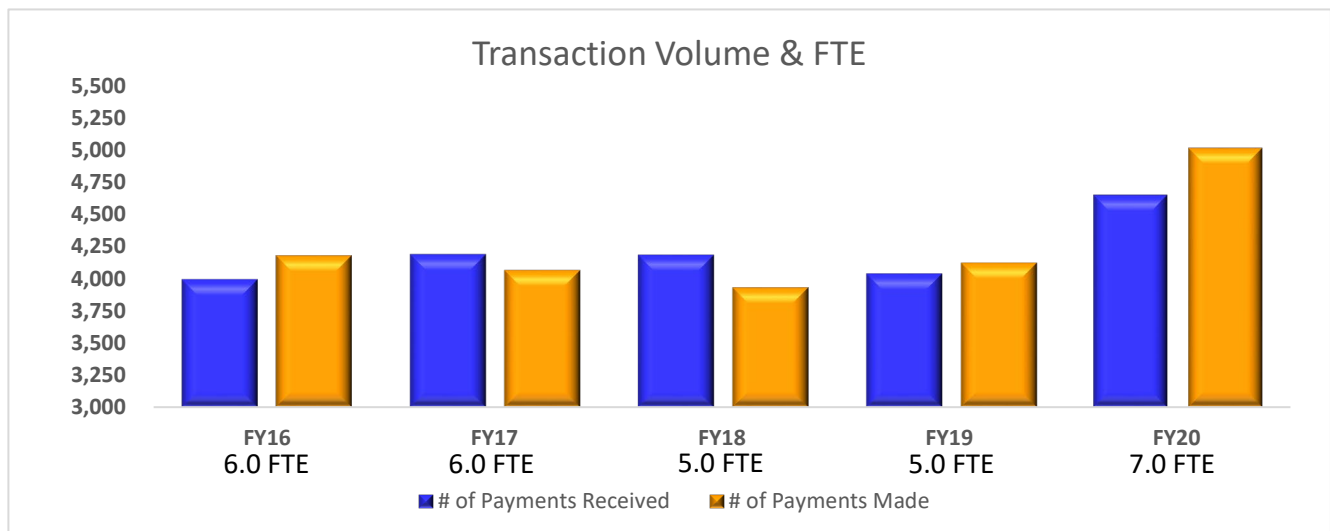
Fiscal Services

The Fiscal Services Section is responsible for agency finance and accounting functions, which includes managing NDEE purchasing, spending, receipting, budgeting, forecasting, and auditing responsibilities. The section has seven staff who offer financial advice and assistance to programs and also conduct financial reviews of grantees. The Section also provides significant staff assistance to support key programs and to serve as advisors in regards to financial planning, in addition to the collection, tracking and reporting applicable fees. Because of the vast role the team plays within the agency, emphasis was placed on cross training and streamlining processes in the last year.

Major accomplishments during fiscal year 2020:

- Development and testing of 45 standard operating procedures (SOPs). During this time, the team worked on creating efficiencies within its core processes and identifying/training backups so processes can be executed in times of need.
- Consolidated financial reporting for the agency to include the Energy Programs. With this accomplishment, executive leaders can review the financial performance of the agency within a single set of reports.

Created a system for reporting cost savings to executive leaders for use with reinvestments back into the agency.



Human Resources

The Human Resources Section consists of three staff members, who together plan, direct, coordinate, and administer the day-to day operations of Human Resource Section. The Human Resource team supports the agency efforts to provide a working environment that strengthens individual and organizational performance.

Staff retention continues to be an important goal for NDEE. Staff turnover impacts continuity in NDEE’s programs and activities, and results in additional costs for recruitment and training of replacement staff members. NDEE strives to foster and maintain an employee-friendly workplace by offering transfer and promotional opportunities for qualified internal applicants.

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

The charts below comparatively shows staffing activity for FYs 2019 and 2020. The staffing activity is relatively consistent from year to year. The agency has been working on staff retention challenges. While the number of terminations are down, it is unclear if we are making progress or whether the COVID-19 pandemic has kept staff in place due to uncertainty in the job market. The agency anticipates a larger number of retirements over the next couple of years, as the baby boomer generation has reached retirement age. We have been developing redundancy in positions (succession planning) to avoid a significant loss of agency knowledge and expertise.

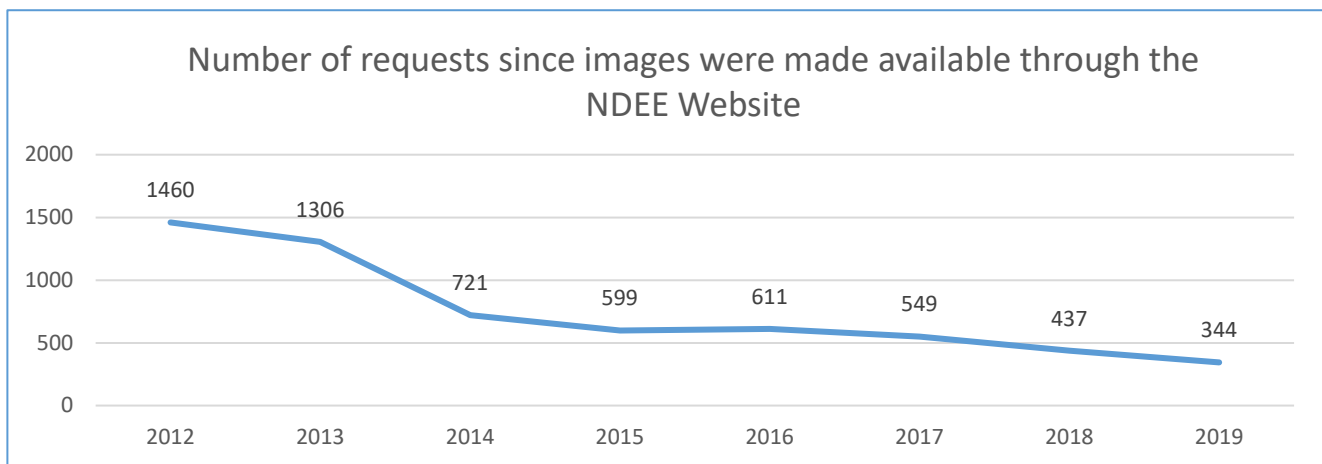
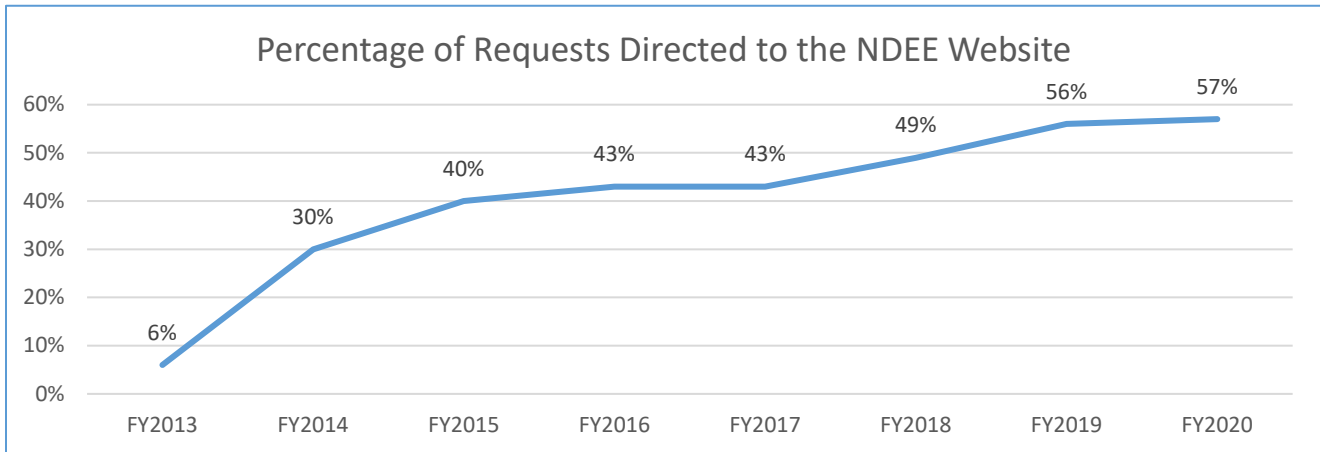
July 1, 2018, to June 30, 2019	
New Hires	28
Retirements	11
Terminations	20
Transfers	4
Promotions	13

July 1, 2019, to June 30, 2020	
New Hires	23
Retirements	4
Terminations	5
Transfers	4
Promotions	10

Records Management

The Records Management Section is responsible for managing the agency’s paper and electronic records, centralized mail handling process, requests for public information and other support functions. In FY2020:

- Over 128,500 records were stored in the Enterprise Content Management System (ECM) utilizing OnBase software applications from Hyland Software.
- More than 32,000 incoming mail items were imaged and routed electronically to agency staff through a workflow process in the ECM.
- Staff in the Records Section responded to 676 requests for information. The number of information requests go down annually, as more information is made available online.
- This year 57% of the 676 requests made were fulfilled by directing the requestor to the agency website to view documents
- In response to public requests, the Records Section team imaged over 1000 legacy paper files into the ECM.



In March 2020, agency staff went home to work due to the outbreak of the COVID Virus. The NDEE Records Section Team remained working in the office maintaining the agency’s core paper mail handling processes. The Mail Process continued uninterrupted with program staff at home. Team members opened, scanned and indexed over 12,000 documents. Agency staff continued receiving daily mail through the electronic workflow. A few other staff were in-office one day a week to process outgoing mail items and provide to Records. Besides mail processing, the team was available for questions, records requests and supporting each other. As staff made requests for paper files, the files were pulled, scanned, and made available electronically. In addition to the daily mail, the team imaged over 7,500 files and responded to 200 public records requests. Almost 26,000 documents were scanned and indexed between March 15 and July 10.

Information Technology

The Information Technology (IT) Section responsibilities are to assist NDEE users with any problems or concerns that are not PC hardware or software related, maintain the midrange IBM Power I (AS/400) computer hardware, web page support, and AS/400 application development.

The application development staff, in cooperation with the Water Quality Division/Surface Water Monitoring Section Unit, have developed a comprehensive Surface Water application where staff will be able to generate forms for data gathering, and input data into the agency Integrated Information System (IIS). They will be able to access data and use it to generate reports and export results to the public web page more quickly and with greater accuracy. The application is in full operation and the

agency is realizing efficiencies in program operation. The collected information will be shared with EPA through the Exchange Network process utilizing the Water Quality Exchange process.

Public Information Office

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

A primary responsibility of this office is to handle questions from the public and media (newspaper, television, radio and web) regarding NDEE's activities.

The Public Information Office is responsible for the writing and distribution of news releases on a wide range of environmental topics that are of importance to the public. The office is also involved in the production of a number of other publications, including this annual report, brochures, fact sheets and guidance documents. These publications can be obtained by contacting the Public Information Office or by visiting NDEE's website, <http://dee.ne.gov>.

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

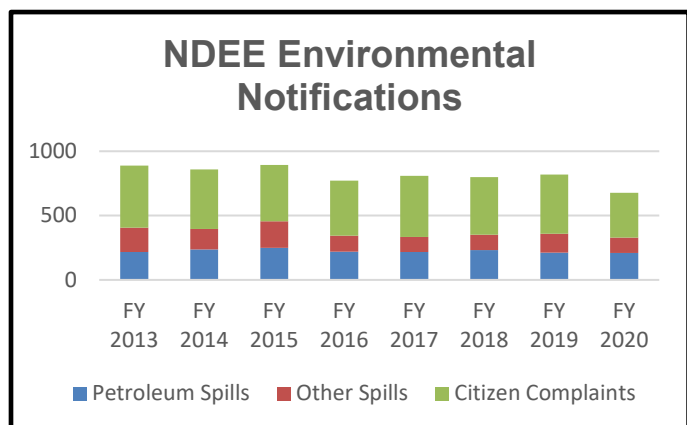
NDEE also maintains social media accounts on Facebook, Twitter, LinkedIn, and YouTube to share agency updates, offer a resource for its audiences, and provide another way to reach the agency.

Emergency Response Program

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

The Emergency Response Program Coordinator is responsible for training, equipping and coordinating staff who, in addition to their responsibilities to other programs, provide initial documentation, assistance and response to spills. These individuals have the responsibility to maintain an emergency response system that is on call 24 hours a day.

The Emergency Response Program assists in arranging for the disposal of harmful and potentially hazardous materials. The Program represents the environmental interests of the state at the scene of a petroleum/chemical spill or other environmental emergency. All personnel are members of the Nebraska Hazardous Incident



Team and coordinate closely with the local, state and federal agencies involved in emergency response incidents.

The NDEE recorded 330 reports of spills in FY 2020 (Jul 2019 – Jun 2020). Two hundred nine (209) of the spills involved petroleum. The number of reported spills continues to be relatively constant year over year.



An additional 347 citizen complaints were recorded by NDEE in FY2020. The department's data reflect a 25% decrease in citizens filing unsolicited complaints over the past year.

In April, two members of the NDEE Emergency Response Team recovered one of the last remaining orphan containers left from the flooding that occurred in 2019. A tank was found stranded off the shoreline of the Louisville State Recreation Area. NDEE, working with Cass County Emergency Management and local businesses, extracted the tank from the Platte River and returned it to its owners.

Quality Assurance Project Plan Activities

The Agency's Quality Assurance process has been established to meet EPA grant requirements and to ensure the data collected by the agency is of high quality, complete, consistent, accurate, valid, and collected and analyzed in a timely manner.

The EPA has requirements for conducting quality management activities for all environmental data collected by the NDEE, to ensure the Department's decisions are supported by data of known and documented quality. In turn, the Department is responsible for reviewing the procedures a project will use to ensure the samples participants collect and analyze, the data they store and manage, and the reports they write are of high quality. Quality Assurance Project Plans (QAPPs) are written documents outlining these procedures. The Quality Assurance (QA) coordinator assigns the review of QAPPs by appropriate personnel throughout the Department.

In FY 2019, the Quality Assurance (QA) coordinator and review team members streamlined the QAPP review process to increase consistency of reviews and reduce the turnaround time for QAPP approvals. An update to NDEE's Quality Assurance Management Plan and the Superfund Site Assessment Generic QAPP began and will be completed in FY 2020.

Grants/Contract Coordination

The Grant Coordinator is responsible for:

- Completing federal grant applications.
- Ensuring compliance with grant conditions and requirements, particularly reporting requirements.
- Maintaining and coordinating all official record of correspondence with the Environmental Protection Agency (EPA), Region 7 grants office.
- Tracking of grant applications through the award process, and follow-up of reporting and conditions.

- Ensuring NDEE programs meet reporting deadlines, consolidating reports and verifying they are sent to and received by EPA.
- Ensuring all required sub-awards are reported to the Federal Funding Accountability and Transparency Act Sub-award Reporting System.
- Corresponding with EPA Headquarters to ensure NDEE stays in compliance with Federal grant guidance and new requirements.
- Providing assistance with Requests for Proposals, contract development.
- Working with the Fiscal Services Section to ensure communication regarding grants, contracts and programs.
- Working with Records Management Section to verify all agreements and contracts are in the Enterprise Content Management system (documents imaged).

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 and the grants associated with them.

CHAPTER 3:

Environmental Quality Council

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

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

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

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

Following are two tables. The first lists the council members and the second summarizes Council actions for FY19-20.

Council Members

Representing	Council member	Term expires
Agricultural Crop Production	Rod Gangwish Shelton	June 22, 2021
Ag Processing Industry	Douglas Anderson Aurora	June 22, 2023
Automotive/Petroleum Industry	John Dilsaver Omaha	June 22, 2021
Biologist	Mark Czaplewski Grand Island	June 22, 2021
Chemical Industry	Seth Harder Plainview	June 22, 2023
City Government	Vacant	June 22, 2023
Conservation	Norris Marshall Kearney	June 22, 2023
County Government	Vacant	June 22, 2023
Food Products Manufacturing	Michelle Bucklin Omaha	June 22, 2021
Heavy Industry	Karl Barfuss Norfolk	June 22, 2023
Labor	Robert Hall Wahoo	June 22, 2021
Livestock Industry	Alden Zuhlke Plainview	June 22, 2021
Minority Populations	Mohamed Dahab Lincoln	June 22, 2021
Municipal Government	Lance Hedquist South Sioux City	June 22, 2021
Physician	Vacant	June 22, 2023
Power Generating Industry	Joseph Citta, Jr., Columbus	June 22, 2021
Professional Engineer	Dennis Grams Lincoln	June 22, 2023

Environmental Quality Council Actions

July 1, 2019, to June 30, 2020

Council Meeting Date	Regulation	Action
November 7, 2019	Public Hearing on 2020 Litter Percent Allocations	Approved
	Amendments to Nebraska Administrative Code (NAC) <i>Title 195, Chemigation Regulations</i>	Approved
	Repeal of Chapters in NAC <i>Title 135, Mineral Exploration Holes</i>	Approved
	Amendments to NAC <i>Title 200, Petroleum Release Remedial Action Reimbursement Fund</i>	Approved
	Amendments to NAC <i>Title 197, Certification of Wastewater Treatment Operators</i>	Approved
	Amendments to NAC <i>Title 198, Agricultural Chemical Containment</i>	Approved
	Amendments to NAC <i>Title 129, Air Quality Regulations</i>	Approved
June 25, 2020	2021 Intended Use Plan and Project Priority Lists for Clean Water State Revolving Fund and Drinking Water State Revolving Fund	Approved

CHAPTER 4:

Air Quality Division

The objective of the Air Quality Division is to maintain and protect the quality of the outdoor air in Nebraska. Thousands of tons of pollutants are emitted into the air in the state each year from industrial and other human activities. These air pollutants can affect human health, cause property damage, harm the environment, and reduce visibility. The Air Division works to maintain Nebraska's air quality by implementing state and federal air quality regulations, through permitting and compliance activities for stationary sources, and by monitoring outdoor ambient air for regulated pollutants. Nebraska's air quality rules are set forth in Nebraska Administrative Code (NAC) *Title 129 – Nebraska Air Quality Regulations* (Title 129).

The regulated air pollutants of most concern are particulate matter, ozone, nitrogen oxides, sulfur dioxide, carbon monoxide, and lead. These pollutants are subject to National Ambient Air Quality Standards (NAAQS). All areas of the state are currently in attainment, meaning that the state has air cleaner than the federal limits for these pollutants. Maintaining compliance with these federal standards is important to protect the public health. NAAQS nonattainment could result in additional requirements and significant economic costs to regulated facilities and the state. The Department also regulates the emission of substances defined by the U.S. Environmental Protection Agency (EPA) as hazardous air pollutants (HAPs), which are toxic substances known to cause cancer and other serious health impacts. Title 129 does not include any requirements specifically for the control of odors.

The Air Quality Division consists of the Air Permitting Section, which issues construction permits, operating permits, and performs air dispersion modeling; and the Air Compliance Section, which maintains an ambient air monitoring network, compiles emission inventories, and conducts inspections and other compliance and enforcement activities. In addition, Planning staff work with the Division Administrator to monitor federal regulations, update state regulations and Nebraska's state implementation plans to remain in compliance with air quality standards, and inform the regulated community and the public about changes in air quality regulations.

Through an agreement with the Department and direct delegation from the EPA, three local agencies — Lincoln-Lancaster County Health Department, Omaha Air Quality Control, and Douglas County Health Department — have accepted responsibility for various facets of the air quality program within the jurisdictions of those agencies. These responsibilities include air quality monitoring, permitting, and enforcement.

Permitting Section

An air quality permit sets enforceable limits on the amounts of pollutants that a facility may emit, ensuring that facilities are constructed and operated in a manner that protects the quality of the surrounding ambient air. The Department issues two main types of air quality permits: construction



Nebraska enjoys good ambient air quality, with all parts of the state in compliance with federal and state ambient air quality standards.

permits and operating permits. A construction permit may be required for a facility before the construction or modification of an emission unit. An operating permit may be required for an existing facility source of certain air pollutants.

Title 129 provides for three types of construction and operating permits: individual, permit-by-rule, and general. Some sources are not eligible for coverage under permit-by-rule or general permits.

Individual permits are available for all regulated sources. These permits include all requirements applicable and specific to that source and location. Because it is “tailor made” for the source, significant time and labor is required for each permit issued. The individual permit process includes a required public notice with a 30-day comment period.

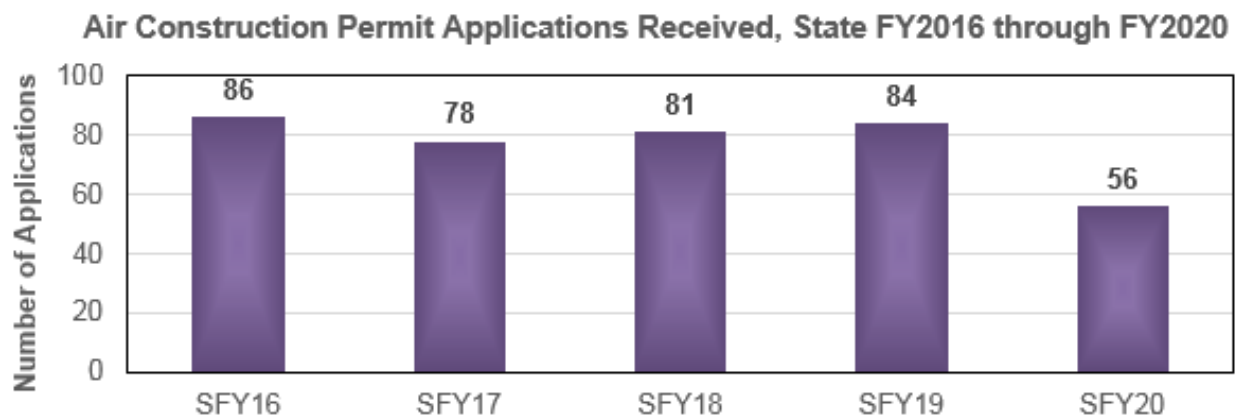
A permit-by-rule and a general permit are similar in that the rule or general permit has the same requirements for, and covers, all sources in a particular industrial category, provided that the source meets the applicability criteria and applies for and obtains coverage. The requirements for a permit-by-rule are established in Title 129. Requirements for a general permit are established in that general permit. Each general permit is issued only once (including the public notice period). Eligible applicants then apply for and obtain coverage without the need to develop an individual permit for that facility or to go through a public comment period each time coverage is approved for an eligible source under that permit-by-rule or general permit.

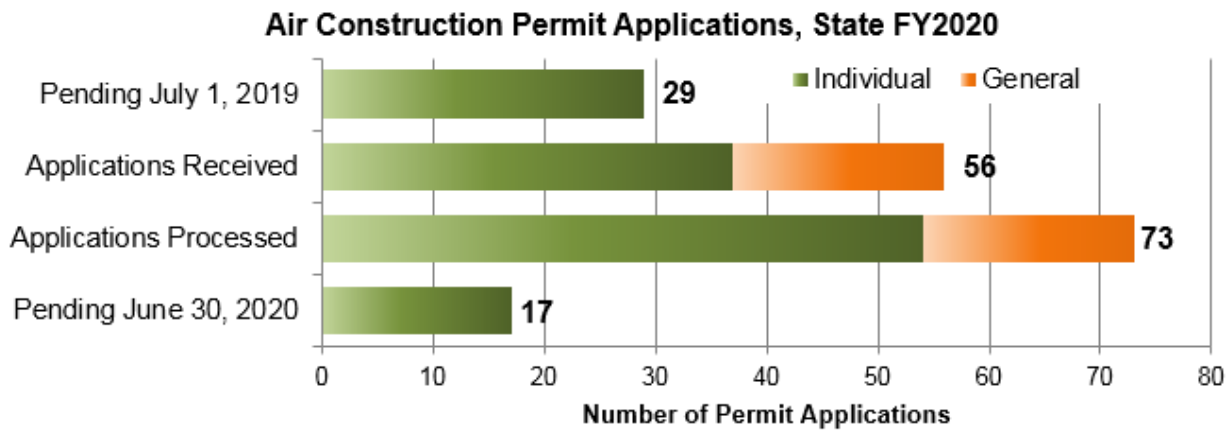
General construction permit coverage is currently available for eligible sources in nine categories (including time-sensitive construction activities), and general operating permit coverage is available for one category (small incinerators). Approval of general and permit-by-rule coverage takes much less time for the agency and for the facility than an individual permit. The permit-by-rule approval process usually takes less than 30 days. An online-only application process is used for general permit coverage, and approval may take only a few days or less.

Construction Permit Program

The Department has maintained a construction permit program for air contaminant sources since the 1970s. Facilities are required to obtain a construction permit before they construct, reconstruct, or modify any air contaminant source or emission unit where there is a net increase in the potential to emit above thresholds specified in Title 129 for particular pollutants. Only sources with potential emissions at or above these thresholds are required to obtain a construction permit. A construction permit is valid for the life of the covered emission units.

The following graph summarizes construction permit applications received, processed, and pending during the 2020 state fiscal year. (Note: the *Processed* category includes permits issued, withdrawn, denied, and determinations of no permit required.)





Nebraska's program also implements the federal construction permit program, called Prevention of Significant Deterioration (PSD). The PSD program applies to construction of new major sources or major modifications to existing sources that emit significant levels of certain types of pollutants. The purpose of the PSD program is to protect air quality in areas where the air is cleaner than the ambient air quality standards while still allowing industrial and economic growth.

For facility sources regulated under the construction permit program that emit levels of certain types of air pollutants sufficient to trigger PSD requirements, Division staff conduct additional, more rigorous reviews of the construction permit application to ensure that best available control technology will be used in order to minimize impacts on the environment. The Department must also assure that the source will not cause or contribute significantly to any deterioration of air quality or violations or exceedances of the ambient air quality standards. Three PSD construction permits were issued in State FY2020; one of which was the State of Nebraska's first ever Plantwide Applicability Limit (PAL) permit. A PAL is an emission limitation, expressed in tons per year, for a pollutant at a major stationary source that is enforceable as a practical matter and is established source-wide in accordance with NAC *Title 129 Chapter 19, Section 011*. A PAL permit places a limit (or cap) on the annual emissions of a specified pollutant from a major source of air pollution and includes monitoring, reporting, and recordkeeping requirements to ensure that the source complies with the annual emissions cap. The EPA put PAL permits into regulation in 2002. The intent was to provide major sources a voluntary option that provides the flexibility to pursue projects without undergoing a PSD review, while assuring environmental protection by locking-in the source at previously emitted pollution rates.

The PSD program also helps to protect visibility in nearby national parks and wilderness areas. The Department notifies federal land managers and nearby States and Tribes of pending PSD decisions and those authorities can express relevant concerns for potential impacts.

The economy and business activity in the state impact the number of air quality construction permit applications received each year. The following graph shows the number of construction permits received annually from state FY2016 through FY2020.

Air Dispersion Modeling

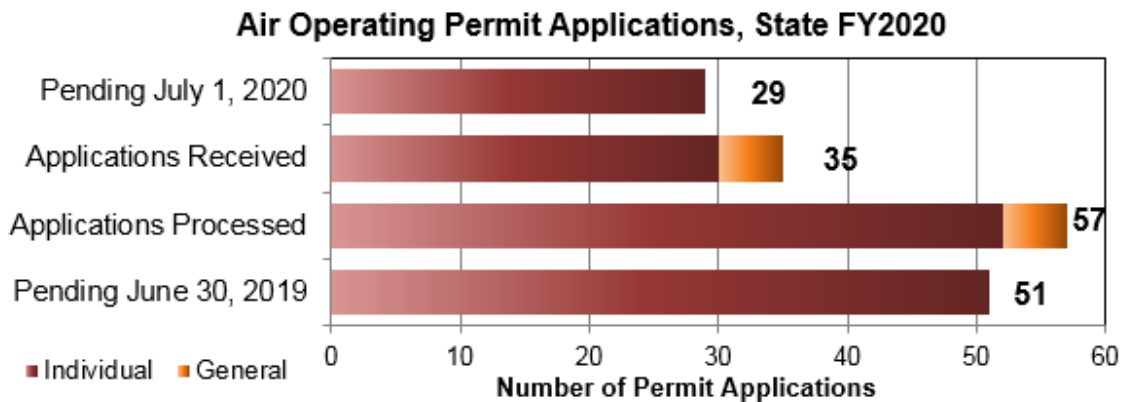
Air dispersion computer models predict how air pollutants emitted by a facility spread and disperse. These regulatory models use expected emissions, meteorological and geographical data, and other factors to estimate ground level concentrations of air pollutants at a large array of locations outside of the facility fence line. In a relatively short amount of time, a model can predict the ground-level impact of facility emissions in a standardized and cost-effective manner.

Modeling is required in conjunction with an air quality construction permit application when the expected increase in emissions of any regulated pollutant by a facility is greater than the emission rate specified in state or federal regulations. An air dispersion model is the primary tool used to determine if the predicted impacts from a new facility or modification will be in attainment with current air quality standards. Models are also used as a design tool to analyze the effects of different pollution control strategies. The Air Quality Division’s air dispersion modeler reviews all aspects of the models that facilities provide as part of their construction permit applications. These reviews include facility emissions and meteorological data, background concentrations, the modeling protocol, and the final modeling results.

Operating Permit Program

As required by Title V of the Federal Clean Air Act Amendments of 1990, Nebraska issues operating permits for Class I (major) sources of certain air pollutants. The Department also regulates minor sources using Class II operating permits as required under Nebraska law. Application for an operating permit is required by Title 129 within 12 months of startup of a regulated air contaminant source. Title 129 provides for operating permit terms up to five years, after which the permit must be renewed. An operating permit contains all applicable requirements for emission points at a facility. For a large, complicated, growing facility, an operating permit incorporates requirements from all construction permits issued for the facility, providing the source with one permit document to help compliance with all associated air permitting requirements.

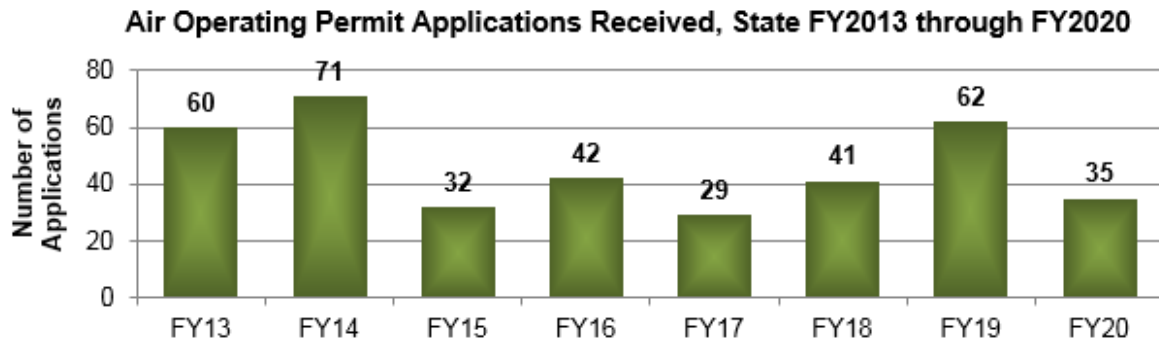
The following chart provides statistics on the number of operating permit applications received, processed, and pending during the 2020 state fiscal year. These statistics include general permit coverage approvals. The current general operating permit for small incinerators was issued in FY2018, replacing the previous five-year general operating permit that expired that year. Most of the general operating permit coverages issued in FY2020 were for applicants whose previous coverage was expiring. (The current general operating permit for small incinerators is available through an efficient online process, whereas the previous general permit required a paper application).



The Nebraska operating permit program also offers an innovative alternative for major sources that have taken measures to keep their emissions very low, called the Low Emitter Rule. To be eligible, a Title V or Class I source must document five years of actual emissions at or below the Class II or minor source threshold levels, meet other requirements established in the regulations, and not otherwise be required to obtain an operating permit. Since its inception in 1997, the Low Emitter Rule has allowed 129 sources to opt out of their major source operating permits, with no identifiable degradation of air quality in Nebraska.

The five-year renewal cycle, past delays in issuing renewals, and other factors have resulted in wide variations over time in the numbers of operating permits up for renewal each year. The chart below summarizes air quality operating permit applications received from State FY2013 through FY2020 (applications for all application types, including permit revisions, general operating permits, permit-by-rule, etc.).

Permit Program Process Improvements



Individual construction and operating permits are complex, highly technical documents that must address all emission points for various pollutants at a facility in a manner that is enforceable as a practical matter. Processing a permit application includes complex analysis with multiple steps and personnel. In FY2020, the Operating Permits Unit undertook a process improvement project on operating permit renewals and applications. The project resulted in a significant reduction in the time needed to prepare and process an operating permit renewal application. One applicant estimated an 80% reduction in their application preparation time. The Air Division documented similar savings in staff time to process the renewal.

Each construction and operating permit includes a fact sheet, which provides a technical description of the facility, applicable regulatory requirements, and a statement of basis for each permit condition. Division staff made significant fact sheet process improvements in FY2018 and will revisit permit fact sheets each year to pinpoint opportunities for streamlining. Additional improvements were made in FY2020 that continue to make these fact sheets more uniform and easier to understand, making compliance easier for facility staff, which also assists the efforts of agency compliance inspectors.

With the process improvement event that started in 2016, fact sheet project initiated in 2018, and other ongoing efforts, the average time required to reach a decision on a construction permit application improved significantly from 188 days to approximately 78 days (including online-only general construction permit coverage) at the end of FY2020. The operating permit application backlog was also significantly improved down from approximately 120 applications a few years ago to 29 applications pending at the end of FY2020, even with a steady influx of applications. Although some impacts of improvements may not be realized in the immediate future, sources with permits being issued now should see processing times significantly improved several years from now when they apply for permit renewal.

The Air Quality program has consistently had a significant amount of staff turnover, leading to recurring discussions about permit decisions, regulations and other challenges. The Division established an electronic Air Quality Permitting Compendium that allows important information about existing permits — such as permit decisions, regulatory determinations, and internal procedures — to be archived, easily searched, and readily accessible to Air Quality Division Staff. In addition, the Division revamped new employee onboarding procedures. These are two examples of the significant efforts to help improve staff training and permitting consistency. This tool allows Division staff to research past permitting actions and associated publications and documents to help facilitate more rapid permit and uniform permit decisions.

At the end of FY2020, the Air Construction Permitting Program started pursuing a project to develop an online air construction permitting process. The objectives of the project are to make permit applications easier and more accessible for regulated facilities, to streamline the permitting process, and to reduce application errors. An online system will ensure applications are complete and would be received electronically by the agency. This will reduce document handling time (mailing, processing, and scanning) and deliver applications to the program staff in a timelier manner.

Compliance Section

Ambient Air Quality Monitoring Program

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment, which are called “criteria pollutants.” The Act established two types of national air quality standards: primary standards, which are intended to protect public health, and secondary standards, intended to protect the environment. National standards have been established for the following six pollutants:

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

Nebraska has an additional ambient air quality standard for Total Reduced Sulfur (TRS). The TRS standard was adopted by the Environmental Quality Council in 1997 and is a public health-based standard.

Nebraska Ambient Air Monitoring Network

The State of Nebraska operates an ambient air-monitoring network to determine compliance with the NAAQS and with state air quality standards. In addition, the Nebraska network includes a site for monitoring regional haze impacts that is part of a national program to help protect visibility in our National Parks and Monuments.

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

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

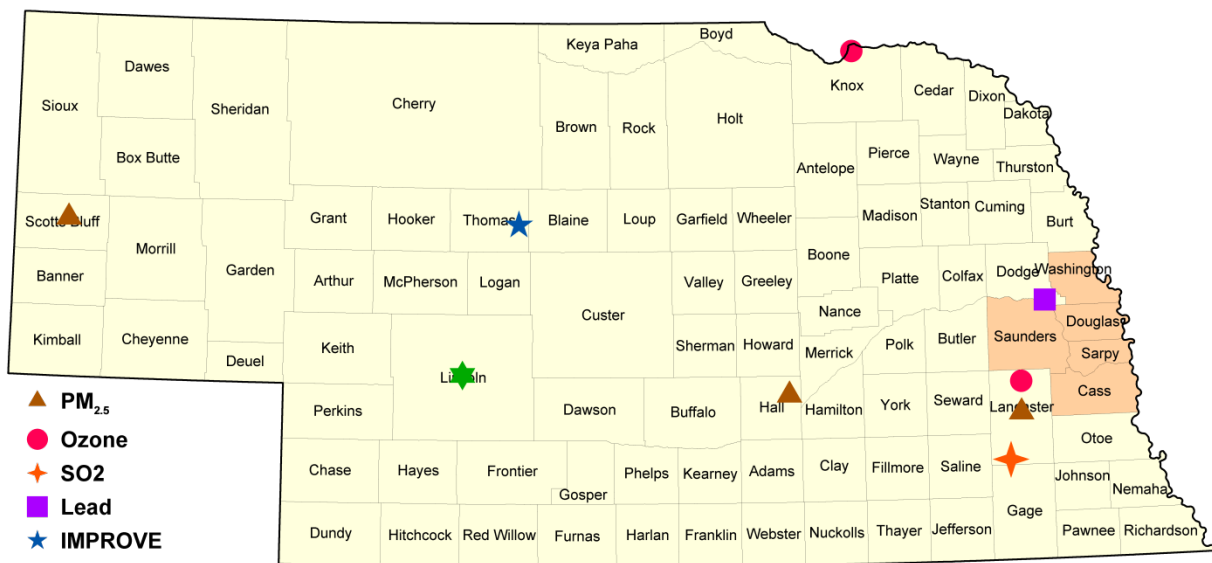
Most of the sites in the monitoring network evaluate pollutants for which standards are established (*i.e.*, PM_{2.5}, PM₁₀, CO, SO₂, Lead, or Ozone). Some sites monitor for more than one pollutant. The NCore site in Omaha is part of a National Core Network that monitors for nine

pollutant parameters. There are two additional types of sites in the network: Interagency Monitoring of Protected Visual Environments (IMPROVE) and National Atmospheric Deposition Program/National Trends Network (NADP/NTN) sites. See the following maps for locations.

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

The National Trends Network (NTN) of the National Atmospheric Deposition Program (NADP) is a nationwide network of sites that monitor for pollutants deposited by precipitation. The deposition constituents examined include acidity, sulfates, nitrates, ammonium chloride, and base-cations (e.g., calcium, magnesium, potassium, and sodium). There are two NADP/NTN sites in Nebraska: one near Mead and one near North Platte, which have both been operational for over 20 years. These sites are operated by the University of Nebraska, with analytical and data development support from the NADP. The Mead site was upgraded to include mercury (Hg) deposition monitoring and is part of the NADP/Mercury Deposition Network (MDN). Both sites maintain the NADP monitoring. Additional information about the NADP/NTN can be found at <http://nadp.slh.wisc.edu>.

Nebraska Monitoring Sites Outside of the Omaha Metropolitan Statistical Area



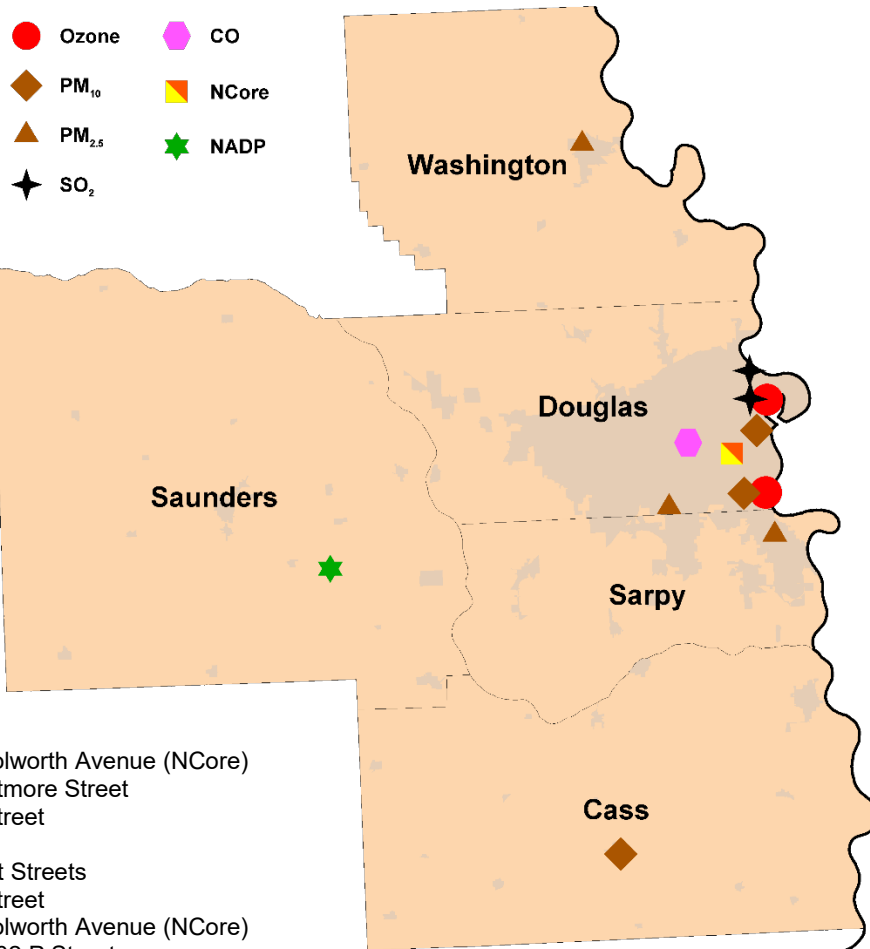
▲ PM_{2.5}	● Ozone	★ SO₂	■ Lead	★ IMPROVE	★ NADP/NTN
▲ PM_{2.5} Lincoln (Lancaster County) Grand Island (Hall County) Scottsbluff (Scotts Bluff Cou)	● Ozone Davey (Lancaster County) Santee (Knox County)	★ Sulfur Dioxide (SO₂) Sheldon Station (Lancaster C	▲ PM_{2.5} Lincoln (Lancaster County) Grand Island (Hall County) Scottsbluff (Scotts Bluff County)	● Ozone Davey (Lancaster County) Santee (Knox County)	★ Sulfur Dioxide (SO₂) Sheldon Station (Lancaster County)
			● Lead Fremont (Dodge County)	★ IMPROVE Nebraska National Forest (Thomas County)	★ NADP/NTN Maxwell (Lincoln County)
					The Nebraska counties in the Omaha-Council Bluffs Metropolitan Statistical Area are indicated by orange shading.

The state map above shows the nine monitoring sites that are located outside of the Omaha-Council Bluffs Metropolitan Statistical Area (counties shown in orange). Three of these sites are operated by the Department, either directly or under contract. The three sites in Lancaster County are operated by the Lincoln-Lancaster County Health Department with NDEE oversight. The National Atmospheric Deposition Program site near North Platte is operated by the

University of Nebraska. An additional ozone site near Santee in northeast Nebraska is operated by the U.S. EPA.

The following map shows the location of the monitoring sites in the Nebraska portion of the Omaha-Council Bluffs Metropolitan Statistical Area (two sites monitor two pollutants and are represented by overlapping pairs of symbols). Nine of these sites, located in Douglas, Sarpy, and Washington Counties, are operated by the Douglas County Health Department with oversight by the Department. A PM₁₀ site in Weeping Water in Cass County is operated by NDEE. The National Atmospheric Deposition Program site at Mead is operated by the University of Nebraska.

Monitor Locations in the Nebraska Portion of the Omaha-Council Bluffs Metropolitan Area



Ozone

- Omaha, 4102 Woolworth Avenue (NCore)
- Omaha, 1616 Whitmore Street
- Omaha, 2411 O Street

PM₁₀

- Omaha, 19th & Burt Streets
- Omaha, 2411 O Street
- Omaha, 4102 Woolworth Avenue (NCore)
- Weeping Water, 102 P Street

PM_{2.5}

- Omaha, 4102 Woolworth Avenue (NCore)
- Omaha, 9225 Berry Street
- Bellevue, 2912 Coffey Avenue
- Blair, 2242 Wright Street

Sulfur Dioxide (SO₂)

- Omaha, 4102 Woolworth Avenue
(NCore Trace Monitor)
- Omaha, 1616 Whitmore Street
- Omaha, OPPD North Omaha Station

Carbon Monoxide

- Omaha, 4102 Woolworth Avenue (NCore Trace Monitor)
- Omaha, 7747 Dodge Street

NCore

- 4102 Woolworth Avenue

NADP/NTN

- Mead, Saunders County

Monitoring Information Online

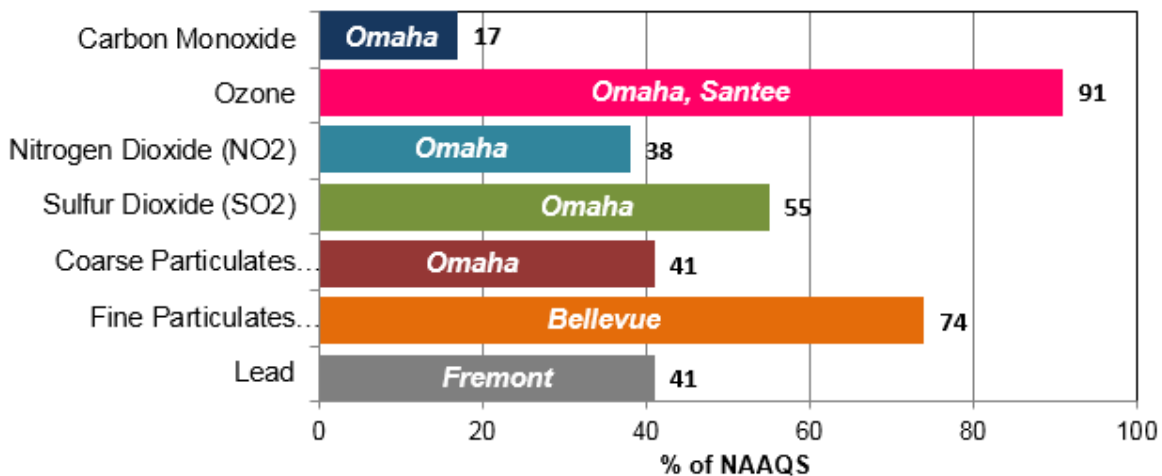
Data from continuous ozone and PM_{2.5} monitors in Lincoln and Omaha are reported hourly to the EPA AirNow system, which makes current air quality information available to the public on the web at <http://www.airnow.gov>. EPA uses the data to calculate an hourly Air Quality Index (AQI) for each monitor location. The AQI is a numeric rating of the current air quality that provides the public with a quick and simple means to evaluate current air quality in each metro area. The Douglas County Health Department and Lincoln-Lancaster County Health Department websites provide links to current AQI values for their cities. The Douglas County Health Department also participates in the ENVIROFLASH program that allows members of the public to sign up to receive air quality alerts via email.

During FY2020, the Division replaced PM_{2.5} monitors in Grand Island and Scottsbluff (which were filter-based monitors that provide average concentrations every three days) with continuous monitors that provide real-time data that will be available to the public via AirNow.

Compliance with National Ambient Air Standards (NAAQS)

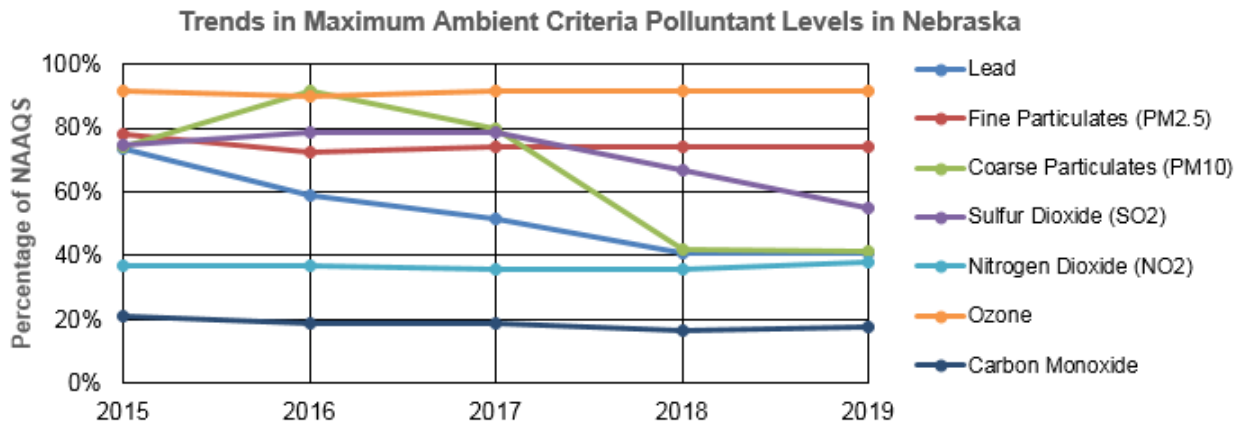
Current air quality monitoring data shows that all areas of Nebraska are in attainment (in compliance) with the NAAQS. The chart below shows where the highest air pollutant levels are being detected in Nebraska for each criteria pollutant and how their levels compare to the NAAQS. A reading of greater than 100% would mean that the NAAQS standard was exceeded, but the highest readings for all criteria pollutants are well below 100%.

**Maximum Ambient Criteria Pollutant Levels in Nebraska
as a Percentage of the National Ambient Air Quality Standards (NAAQS):
Based on Monitoring Data Collected from 2017 through 2019**



The U.S. EPA has designated all of Nebraska as “Attainment/Unclassifiable” with respect to the NAAQS for sulfur dioxide except for Douglas and Lancaster Counties. Lancaster County was designated “Unclassifiable” in 2016 (due to the need for additional characterization), and Douglas County was not designated at that time. EPA has proposed that Douglas County be designated as “Attainment/Unclassifiable” and Lancaster County be re-designated to “Attainment/Unclassifiable” by the end of 2020. These counties include coal-fired power plants in North Omaha and near Hallam, respectively. Designations for these areas are based on data from two source-specific sulfur dioxide

monitoring sites operational from 2017-2019, which demonstrate that sulfur dioxide levels at these locations are in attainment/compliance with the NAAQS.



The chart above shows trends in the maximum measured levels of criteria pollutants in Nebraska from 2015 through 2019. The value for each pollutant and year is the maximum measured at any monitoring site in the state (as a percentage of the NAAQS for that pollutant). All of the criteria pollutants show modest to significant declines in maximum levels since 2015. Ozone is the criteria pollutant of most concern, as maximum levels have remained above 90% of the NAAQS at a number of urban and rural monitor sites in Nebraska as well as in the adjacent states.

The Division compiles an annual Ambient Air Monitoring Network Plan that provides a more detailed analysis of ambient air monitoring data, pollutant trends through time, and NAAQS compliance. These reports are available on the agency website: http://dee.ne.gov/Publica.nsf/Pubs_Air_Amb.xsp.

Inspections and Facility Compliance

The Compliance Program is responsible for conducting compliance inspections of air pollution sources, responding to citizen complaints, observing and evaluating emission tests, and the acid rain program. Consistent with the Nebraska Environmental Protection Act, the Air Quality Division attempts to obtain compliance with environmental regulations first through voluntary efforts. Voluntary compliance has helped bring about a better working relationship with the regulated community without sacrificing environmental quality. However, enforcement actions are pursued by the Department when compliance issues are serious, chronic or cannot otherwise be resolved.

When the Covid-19 pandemic hit, the Air Quality Division had to adjust how inspections were conducted. In early June 2020 the Division implemented a virtual inspection process that was able to meet the EPA compliance monitoring strategy (CMS) requirements. The table on the next page lists the compliance activities conducted by the Department during the year.

State FY2020 Compliance Activity Summary

Compliance Activity	NDEE
On-site Inspections	132
Facility Stack Tests Conducted	107
On-site Observations Conducted	32
Continuous Emission Monitoring Audits Conducted	55
On-site Observations Conducted	13
Complaints Received	74
Burn Permits Issued	91
Burn Permits Denied	0
Burn Permits Withdrawn	0

Emission Inventory and Emission Fees

Each year the Department conducts an inventory of emissions from major industrial sources and a representative sample of lower-emitting minor industrial sources. Emission inventories are due on March 31 each year for the previous calendar year. Every three years, the Department assists the EPA in preparing a comprehensive national inventory of emissions. The next national inventory compiled will include emissions reported by our sources for 2018, 2019, and 2020. The emissions inventory is used to support the planning efforts for national rulemaking and to assess trends in emissions through time.

The Department also uses the emission inventories to determine the assessment of annual emission fees. Facilities that emit major sources of air pollution are required to pay emission fees for each ton of pollutant emitted during the previous calendar year. The maximum emission for which a fee is assessed is 4,000 tons per pollutant. For electrical generating facilities with a capacity between 75 and 115 megawatts, the maximum emission for which a fee is assessed is 400 tons per pollutant. The Department attempts to set the fee rate at the minimum level needed to pay reasonable direct and indirect costs of developing and administering the air quality permit program. An analysis detailing how the Department arrived at the fee rate is made available to fee payers. The rate for emissions generated in 2019 was \$65 per ton, a reduction from \$70 per ton for the 2018 calendar year.

Facilities submitted emission inventory reports for the calendar year 2019 for the first time through the online reporting system called State and Local Emissions Inventory System (SLEIS). Training sessions for SLEIS users conducted during 2019 are still being held in 2020 via video conferencing platforms.

Planning

The Air Quality Division maintains Nebraska's air quality regulations, implements the National Ambient Air Quality Standards (NAAQS), and provides expert information on the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and New Source Performance Standards (NSPS). The Division also provides support and training resources to the regulated community and the general public. Air program and regulatory updates are communicated to interested parties via email through the AirNews listserv. The Air Division also administers local agreements with Lincoln-Lancaster County Health Department, the City of Omaha Air Quality

Control division, and the Douglas County Health Department for their delegated functions in air quality permitting, compliance, and planning.

Planning for Air Quality Issues in Nebraska

EPA periodically reviews the NAAQS using the most recent scientific information available and revises or retains the standards as appropriate. When a new, revised or retained standard is issued, states must determine if they are in attainment with the standard and, if they are not, take the necessary corrective action. States must also submit to EPA their recommendations for attainment or nonattainment designations and State Implementation Plans (SIPs) for each new or revised standard. A State Implementation Plan describes how the department will implement, maintain and enforce a standard.

At the present time, Nebraska is in attainment with all of the NAAQS. Planning activities are currently in progress to address regulatory issues concerning sulfur dioxide, Regional Haze, and the Affordable Clean Energy (ACE) Rule.

Sulfur dioxide (SO₂)

The 2010 sulfur dioxide (SO₂) standard requires states to demonstrate attainment in the areas surrounding large sources of the pollutant. EPA finalized the Data Requirements Rule (DRR) in 2015 to assist in implementation of the 2010 standard, requiring state air agencies to characterize the air quality near sources that emit 2,000 tons per year or more of SO₂. Nebraska chose to comply with this requirement using both air quality monitoring and pollutant dispersion modeling. Sources in Nebraska subject to this rule include coal-fired power plants, specifically Whelan Energy Center (Adams County), Sheldon Station (Lancaster County), North Omaha Station (Douglas County), Gerald Gentleman Station (Lincoln County), and Nebraska City Station (Otoe County).

Areas surrounding Gerald Gentleman Station and Nebraska City Station were characterized by modeling, and EPA designated them as “Unclassifiable/Attainment” in 2016. The area surrounding Whelan Energy Center was also characterized by modeling that demonstrated attainment with the standard and was designated as “Attainment/Unclassifiable” by EPA on April 9, 2018. (Starting in 2018, EPA changed the designation “Unclassifiable/Attainment” to “Attainment/Unclassifiable” to emphasize that these areas are in compliance with current air quality standards.) The remaining areas around Sheldon Station (Lancaster County) and North Omaha Station (Douglas County) were characterized using monitoring. These source-specific monitors were operational from 2017 through 2019, and EPA has proposed designations of “Attainment/Unclassifiable” for both areas; final designations will be promulgated by December 31, 2020.

The DRR requires annual reporting (termed “ongoing requirements”) for areas that were characterized by modeling, and this year’s report was submitted in June 2020. Two facilities are subject to these ongoing requirements: Whelan Energy Center and Gerald Gentleman Station. Facility emissions data indicate that both areas continue to demonstrate attainment with the federal standard.

A State Implementation Plan revision addressing interstate transport of SO₂ is in progress, and demonstrates that emissions from Nebraska sources do not interfere with adjacent states’ ability to maintain or comply with the NAAQS.

In April 2019, EPA retained the current primary (health-based) SO₂ NAAQS.

Ozone

EPA issued revised ozone standards in 2015, lowering the standard from 0.075 parts per million (ppm) to 0.070 ppm. In November 2017 EPA designated the entire state of Nebraska as “Unclassifiable/Attainment”. A revised State Implementation Plan for ozone was submitted to EPA in September 2018 and was approved in April 2020. In August 2020, following a review of the standard, EPA has proposed to retain the current NAAQS.

Particulate Matter

In April 2020, EPA proposed to retain the current NAAQS for particulate matter (PM), including both fine particles (PM_{2.5}) and coarse particles (PM₁₀). A final rule is expected in late 2020.

Regional Haze

Regional Haze refers to impaired visibility caused by particulates and industrial gases in the atmosphere. EPA issued the Regional Haze Rule in 1999 to improve visibility in national parks and wilderness areas. The rule requires that state and federal agencies work together to achieve this goal. Numerous amendments to the Rule have been issued addressing the Cross-State Air Pollution Rule (CSAPR) as an alternative to Best Available Retrofit Technology (BART) for particular pollutant sources, and regulatory requirements for state implementation plans. In addition, recent guidance and technical support documents are available to assist states in preparing State Implementation Plans (SIPs) for the second implementation period (2018-2028).

Nebraska submitted its Regional Haze SIP for the first implementation period (2008-2018) in July 2011; in 2012, EPA issued a partial approval/partial disapproval of the SIP. The disapproved portions include the BART determination for sulfur dioxide for Gerald Gentleman Station and the state's long-term strategy for regional haze insofar as it relied on the BART determination. The disapproved portions will be addressed in the forthcoming SIP revision. This source participates in the CSAPR trading program, which allots each source an emissions budget for SO₂ and permits trading of allotments. Emissions to date from this source have been within the allotted SO₂ budget under CSAPR, and no additional control measures have been required.

The Department submitted its Regional Haze Five-Year Progress Report in April 2017. At present, the Division is developing its SIP revision for the second implementation period, which is due to EPA in July 2021. This SIP revision will address portions of the initial SIP and progress report, as well as state obligations for the current implementation period.

Affordable Clean Energy Rule

In July 2019, EPA finalized the Affordable Clean Energy (ACE) Rule as a replacement for the Clean Power Plan. This rule includes three separate rule-makings: 1) repeal of the Clean Power Plan; 2) establishment of emission guidelines for states to use when developing plans to limit greenhouse gas emissions at power plants and 3) determination that heat rate improvement is the best system for reducing greenhouse gas emissions from coal-fired power plants. The ACE rule did not provide much specificity on how to implement and was left up to the states to develop their own plan within the confines of the rule. The Air Division has begun developing the implementation plan required by this rule and identified seven power plants with a combined 12 units that this rule affects. Several meetings are scheduled in SFY 2021 to have an open dialogue between the power plants and NDEE to address a consistent and EPA approvable plan. Plans must be submitted to EPA in July 2022.

Air Toxics Program

EPA currently lists 187 substances as hazardous air pollutants, or air toxics, which are air pollutants known to cause cancer and other serious health impacts. The Division developed the Air Toxics Notebook on the Department website as a reference on the air toxics program. In addition, the Department also developed another set of web pages for the New Sources Performance Standards (NSPS), which are federal rules that apply largely to new stationary sources. Both sets of rules have been issued by EPA. The Notebooks are intended to help the regulated community and the public understand the air toxic and NSPS regulations. For each standard the Notebook has a page that provides applicability information, regulatory citations, amendment dates, guidance documents, forms, and a listing of sources in the Department's jurisdiction that are subject to each NESHAP or NSPS rule.

CHAPTER 5:

Land Management Division

The Land Management Division's objective is to ensure solid and hazardous wastes are properly managed, assess and remediate contaminated sites, facilitate the redevelopment and reuse of contaminated properties and administer grant programs that advance waste reduction and recycling practices throughout the state. This chapter will begin discussion with the waste grant programs, the voluntary cleanup program, and is followed by activities performed by the hazardous waste (RCRA), Superfund and solid waste management programs.

Planning and Aid Section

The Land Planning and Aid Section manages the Waste Reduction and Recycling Incentive Grants Program, including Scrap Tire Grants and Deconstruction Grants; Litter Reduction and Recycling Grant Program; Illegal Dumpsite Cleanup Program; and Landfill Disposal Fee Rebate Program.

The Section's responsibilities include:

- Awards financial aid to public and private partners – reviews grant submissions; performs compliance inspections; monitors the activities, budgets, and equipment purchases of grantees; and conducts quarterly performance report reviews.
- Outreach – Promotes the availability of grant funding, coordinates the ranking process, coordinates grant awards, and provides integrated waste management information to the public.

Nebraska Department of Environmental Quality/Nebraska Environmental Trust Partnership

In July 2018, the Nebraska Department of Environmental Quality (now NDEE) and the Nebraska Environmental Trust entered into a partnership to ensure agency resources are managed in a fiscally responsible manner by agreeing to:

- Participate in the grant review process on those projects where there is a potential for grant awards from both organizations.
- Appoint individuals who will ensure coordination occurs between the organizations.
- Commit to revising the partnership anytime there is a personnel change, new grant programs are created, or existing programs end or are substantially modified.
- Share information on grant awards and grantees that are non-compliant with award conditions or environmental regulatory requirements.
- Meet annually and when critical program or project needs arise for the purpose of discussing issues of mutual concern and opportunities to enhance the partnership.

Litter Percentage Allocation

At the Environmental Quality Council meeting on November 7, 2019, a hearing was held to decide the 2020 Litter Percentage Allocation. Each year, the Council establishes the percentage of how the funds will be allocated for recycling, public education, and cleanup programs or projects. The Department's recommended percentage allocations for 2020 were based on the actual applications received:

Category	2020 Eligible Requests	
<i>Recycling</i>	20.1%	\$367,390
<i>Public Education</i>	75.0%	\$1,371,100
<i>Cleanup</i>	4.9%	\$89,153
<i>Totals</i>	100%	\$1,827,643

The Department asked for the ability to adjust the percentages by up to 20% for the 2020 grant year, if warranted. The Environmental Quality Council granted this request.

New Grant Application Guidance Updates

To address common issues with grant recipients, the division created grant application guidance in 2018 to provide direction and set limits on grant-funded expenses. The purpose is to provide fair and equitable reimbursements, especially when requests exceed the amount of grant funding available. A subcommittee of the Nebraska Environmental Quality Council reviewed the guidance in the fall of 2018 and accepted it at the November 15, 2018, Environmental Quality Council meeting. The guidance affects grant applications received after January 1, 2019. Further updates were made in 2020 to clarify eligible reimbursements for personnel and other expenses.

Alignment of the Waste Reduction and Recycling Incentive Grant Program and Litter Reduction and Recycling Grant Program grant terms to a calendar year

Beginning with 2020 awards, the Waste Reduction and Recycling Incentive grant term changed from a fiscal year to a calendar year. With this change, both the Litter Reduction and Recycling and Waste Reduction and Recycling Incentive grant programs will be on a calendar year. This change will allow our grant programs to more closely align with the grant application period of the Nebraska Environmental Trust. Scrap tire grant applicants wanting to hold a scrap tire collection event, or who plan to do construction projects (artificial turf, running tracks, or playground surfaces) will have notification of their grant award in December, rather than late spring or early summer. To make the transition to a calendar year, the 2019 awards for the Waste Reduction and Recycling Incentive grant program (which includes Scrap Tire Grants) were awarded for a six-month grant term, from July 1 through December 31, 2019. All 2020 grant terms are from January 1 through December 31, 2020.

Updated Online Grant Application

In 2020, an updated online application was created for the Waste Reduction and Recycling Incentive Grants Program and the Litter Reduction and Recycling Grant Program. The updated application provides more instruction on each screen where data is entered to improve the application process.

Expected Service Life

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

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

Equipment Redistribution

When grant-funded equipment with an existing expected service life is no longer being used, it is made available for redistribution to other users. One redistribution of equipment was made in 2020.

Waste Reduction and Recycling Incentive Grants Program

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

There are three sources of revenue for this program:

- A business fee on sales of tangible personal property, which generates about \$500,000 annually.
- A \$1 per tire fee on the retail sale of new tires in Nebraska, which generates about \$2.4 million annually.
- Fifty percent of the \$1.25 per ton disposal fee on solid waste disposed of in permitted landfills, which generates approximately \$1.4 million annually for grant awards.

The Waste Reduction and Recycling Incentive Fund provides grants to private, non-profit, and government organizations 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
- Food waste composting
- Yard waste composting and composting with sewage sludge
- Waste reduction and waste exchange
- Household hazardous waste (HHW) programs
- Electronic waste collections
- Pharmaceutical collections
- The consolidation of solid waste disposal facilities and use of transfer stations
- Incineration for energy recovery

A portion of the grant funds are obligated to fund scrap tire recycling and/or reduction projects, and another portion of the grant funds are available to smaller cities and counties for abandoned building deconstruction.

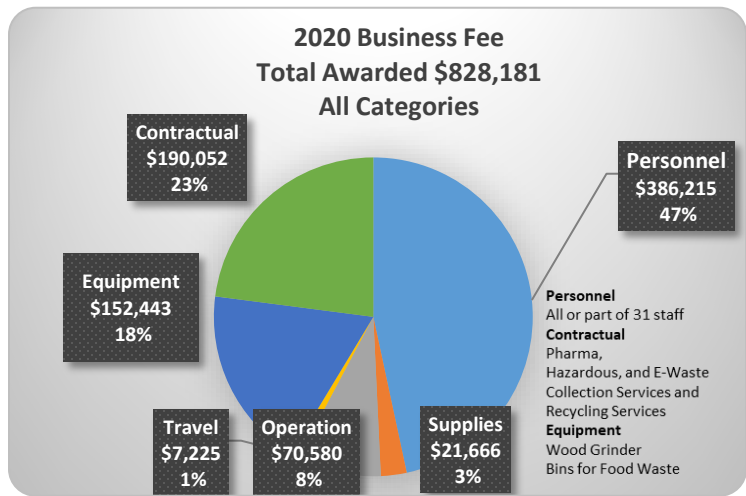
Fund Summary Waste Reduction and Recycling Fund July 1, 2019 - June 30, 2020	
Fund Balance June 30, 2019	\$808,767
Revenues:	
New Tire Fees	\$2,370,057
Business Fees	\$466,451
Waste Reduction & Recycling Fee	\$1,462,850
Solid Waste Disposal Fee	\$33,095
Interest, Grant Returns	\$21,550
Miscellaneous	\$-240,000
Operating Transfers Out	\$-240,000
Net Collections for Year	\$4,114,003
Expenditures:	
Administration	\$329,111
Grant Funds Expended*	\$2,759,259
Total Expenditures FY 2019	\$3,088,370
Fund Balance June 30, 2020	\$1,834,440

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

For calendar year 2020, \$4,271,764 was awarded for Waste Reduction and Recycling Incentive Grants to 110 projects. There were 18 grants awarded from the Business Fee category (\$828,181), 14 were awarded from the Disposal Fee category (\$1,400,186), one grant was awarded for Deconstruction of Abandoned Buildings (\$186,662), and 77 were awarded from the funds prioritized for scrap tire projects (\$1,856,735).

These grants were awarded for a calendar year for the first time. This allows for both the Waste and Litter grants to be on the same grant cycle. The following lists indicate the locations across Nebraska that received funds in the Business Fee category and the Disposal Fee category.

Business Fee



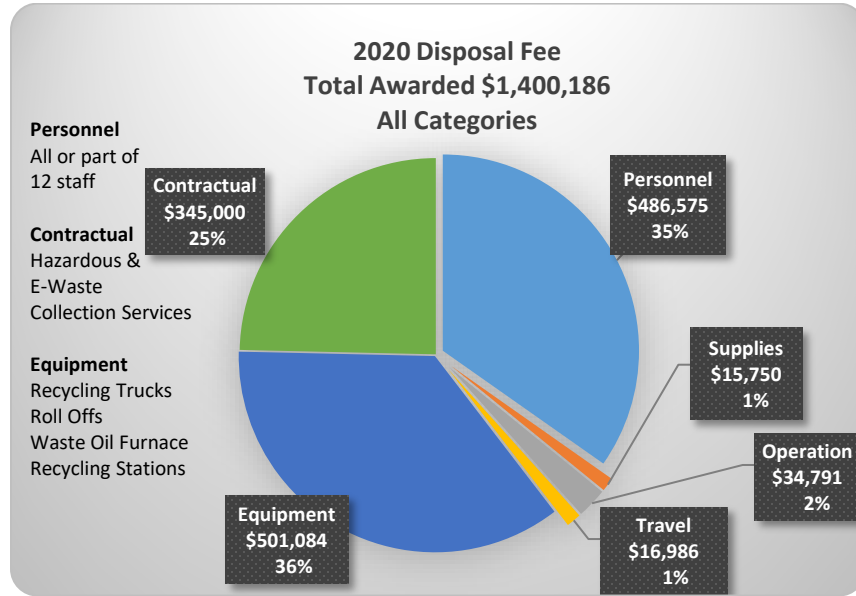


This photo was provided by Papio Valley Nursery, which was awarded funds toward a wood grinder to process 55,000-75,000 yards of wood waste annually. The wood chips will be used for a wood burning broiler system for their greenhouses.

Business Fee: \$828,181 for 18 grants			
Alliance	Keep Alliance Beautiful	\$98,746	Funds for the recycling center operations for Box Butte Co. and surrounding area, and waste reduction & recycling education programs.
Chadron	Keep Chadron Beautiful	\$61,976	Funds to continue the paper and cardboard recycling program for the city of Chadron.
Columbus	Keep Columbus Beautiful	\$625	Advertising expenses for an electronic waste collection event in Columbus for Platte County residents.
Columbus	Keep Columbus Beautiful	\$24,141	Funds to hold a household hazardous waste collection event in Columbus for Platte County residents. Anticipate collecting 15,000 lbs. of waste.
Fremont	Keep Fremont Beautiful, Inc.	\$21,302	Funds to hold a household hazardous waste collection event for residents in Fremont and Dodge County. Also provide recycling opportunities at public events and maintain an ongoing program to promote waste reduction and improve recycling efforts.
Grand Island	Grand Island Area Clean Community System	\$143,562	Funds to operate the Betty Curtis HHW facility for Hall, Hamilton, Howard, Merrick, and Adams counties.
Hebron	Trailblazer Resource Conservation & Development (RC&D)	\$32,500	Funds to host seven electronic waste collections in Clay, Thayer, Nuckolls, Webster, Franklin, Fillmore, and Harlan counties. Anticipating collecting 130,000 lbs. of e-waste.
Kimball	Keep Kimball Beautiful	\$16,994	Funding to increase recycling by providing collection services for rural residents and residential alley recycling pickups.
Lexington	Lexington Area Solid Waste Agency	\$23,823	Funds to hold two household hazardous waste collection events in central Nebraska.
Lincoln	Keep Nebraska Beautiful	\$74,970	Funds to operate the Materials Exchange Program (reuse/recycle >10 mil. lbs. of materials annually; saving landfill fees of \$200,202, and purchasing costs of \$302,733), Food Waste Program, and Used Oil Collection Program.

Lincoln	Lincoln Public Schools	\$46,380	Continue the successful recycling and composting program and expand the quantity and variety of recyclable and compostable materials to include construction waste. Anticipate diverting 2.7 million lbs. of material from the landfill.
Lincoln	Nebraska Recycling Council	\$49,927	Funds to develop the hub and spoke model for recycling for an additional 20 counties in southeast Nebraska. Continue working with two hub and spoke recycling programs for 38 Nebraska counties.
Louisville	Keep Cass County Beautiful	\$1,900	Funds for educational materials and to hold four electronic waste recycling events for Cass County. Cross Training Center in Omaha will take items collected at no cost.
Oakland	Nebraska Loess Hills RC&D	\$7,025	Funds to host one electronic waste collection in event in Oakland to serve Burt, Cuming, Dodge, Dakota, Thurston, and Washington counties. Anticipate collecting 16,000 lbs. of e-waste.
Oakland	Nebraska Loess Hills RC&D	\$16,988	Funds to hold three HHW collections in Blair, Pender, and North Bend. Anticipate collecting 30,000 lbs. of waste.
Ogallala	Keep Keith County Beautiful	\$788	Funds to provide pick up service for recyclables from 10 containers at Lake McConaughy and at local schools during the school year. Thirty tons of recyclables were collected over the 4th of July weekend in 2019.
Papillion	Papio Valley Nursery	\$150,000	Funds to provide 50% of a wood grinder used to process 55,000-75,000 yards of wood waste collected annually. Chips will be used for a wood burning boiler system for their greenhouses.
Scottsbluff	Keep Scottsbluff Gering Beautiful	\$56,534	Funds to host both pharmaceutical take back and household hazardous waste collection events for Scottsbluff, Gering, and surrounding residents.

Disposal Fee



These photos were provided by York Public Schools. The school was awarded funds for the proper disposal of school science chemicals at York High School. Some of the chemicals were over 50 years old.



Disposal Fee: \$1,400,186 for 14 grants			
Kearney	City of Kearney	\$90,558	Funds toward 50% of a recycling truck for Kearney's cardboard curbside collection program to replace a truck that is getting less dependable.
Kearney	City of Kearney	\$137,400	Funds toward 50% of a recycling truck for Kearney's free curbside recycling program to replace a truck. About 215 semi-loads of baled recyclables are collected each year.
Lincoln	Lincoln-Lancaster County Health Department	\$188,137	Funds to operate Lincoln's household hazardous waste facility, the HazToGo marketing plan, and toxics reduction education (including a green cleaning kit project) for residents of Lancaster County.
Lincoln	University of Nebraska-Lincoln	\$174,963	25% of the cost of 450 standardized recycling stations for UNL's City and East Campuses to meet the City of Lincoln's recycling goal of 50% by 2022.
Lincoln	University of Nebraska-Lincoln	\$85,762	Funds for UNL student interns to provide 11-week onsite technical assistance to educate selected Nebraska manufacturers on volume and/or toxicity reduction to reduce waste and save energy.
Lincoln	City of Lincoln	\$132,000	Funds to update Lincoln's Solid Waste Management Plan for 2040 future waste management in Lincoln/Lancaster Co.; funds toward a truck to assist with servicing overwhelming volumes at recycling drop-off locations.
McCook	Red Willow County	\$164,436	Funds to provide a minimum of 37 household hazardous waste collections and 10 household hazardous waste pickup/disposals. Expect to collect about 200,000 lbs. of waste in 2020 from 34 counties.
North Platte	City of North Platte	\$13,900	Funds for two recycling roll-off containers to collect plastic bags, agricultural tubes, and irrigation tubing to haul to a local recycler. Estimate diverting one ton of recyclables each month through this program.
Omaha	City of Omaha - UnderTheSink HHW Facility	\$350,000	Year 5 of a 5 multi-year grant for Omaha's UnderTheSink HHW facility serving Douglas & Sarpy counties.
South Sioux City	City of South Sioux City	\$8,263	Funds toward a waste oil furnace to use in South Sioux City's Public Works maintenance facility. Approximately 750 gallons of used oil is collected annually from city fleet vehicles and residents.
Valentine	Middle Niobrara Natural Resources District	\$1,500	Funds for an educational display board, brochures, and supplies to promote and educate about a woody biomass boiler system.
Valentine	Middle Niobrara Natural Resources District	\$41,300	Funds to continue composting efforts, which include woody biomass and livestock manure.
Wayne	City of Wayne	\$7,667	Funds for an electronic waste collection event for the City of Wayne and surrounding towns. Anticipate collecting 20,000 lbs. of e-waste.
York	York Public Schools	\$4,300	Funds for proper disposal of school science chemicals at York High School, including some that are over 50 years old.

Deconstruction of Abandoned Buildings

The Deconstruction of Abandoned Buildings grant program, part of the Department’s Waste Reduction and Recycling Incentive grant program, provides funding to assist in the removal of abandoned structures. Building deconstruction means the physical dismantlement of a building’s components to recover the materials for reuse or recycling. The process decreases the amount of demolition material lawfully disposed of in landfills or improperly disposed of elsewhere. Nebraska cities of the second class, villages, and counties with a population of 5,000 or less are eligible to apply for funding. The buildings selected must not be on, or eligible to be on, the National Register of Historic Places.



Photo provided by the City of Oshkosh.

Deconstruction of Abandoned Buildings: \$186,663 for 1 grant			
Oshkosh	City of Oshkosh	\$186,662	Deconstruction of the Midwec Building at 602 Main St., Oshkosh, NE. This is a 3-story, 1/4 acre building primarily made of concrete. Concrete to be crushed and used for rock surfacing.

Scrap Tire Grants

The scrap tire grants are funded by the \$1 per tire fee on retail sales of new tires. In 2020, \$1,856,735 was awarded to 77 projects.

- Scrap tire cleanup events: 33 grants, \$698,127 awarded
- Completed projects for the partial reimbursement of the purchase of tire-derived products and/or crumb rubber: 34 grants, \$494,145 awarded
- Proposed projects for the partial reimbursement for the purchase of tire-derived products and/or crumb rubber: 9 grants, \$326,962
- Scrap Tire Equipment grant: 1 grant, \$337,500

Scrap Tire Cleanup Events

Funding is provided to political subdivisions for tire collection site cleanups. Thirty-three scrap tire cleanup grants were awarded in 2020 to political subdivisions. The grants totaled \$698,127 and proposed to clean up 5,271 tons of scrap tires.



Photo provided by Custer County Recycling, which was awarded a proposed 150-ton scrap tire cleanup in Broken Bow for Custer County and portions of the following counties: Blaine, Dawson, Logan, Loup, Sherman, and Valley.

Scrap Tire Cleanup Events: 33 grants, \$698,127 awarded			
Albion	City of Albion	\$16,490	Proposed 140-ton scrap tire cleanup in Albion for Boone County.
Alma	Lower Republican Natural Resources District	\$8,812	Proposed 70-ton scrap tire cleanup in Hildreth for Franklin County.
Alma	Lower Republican Natural Resources District	\$13,096	Proposed 106-ton scrap tire cleanup in Alma for Harlan County.
Alma	Lower Republican Natural Resources District	\$11,192	Proposed 90-ton scrap tire cleanup in Guide Rock for Webster County.
Auburn	Nemaha County	\$10,875	Proposed 100-ton scrap tire cleanup in Nemaha County at two locations.
Beatrice	Gage County	\$50,852	Proposed 450-ton scrap tire cleanup in Beatrice for Gage County.
Beaver City	Furnas County	\$18,370	Proposed 150-ton scrap tire cleanup in Arapahoe for Furnas, Frontier, and Red Willow counties.
Benkelman	City of Benkelman	\$13,896	Proposed 100-ton scrap tire cleanup in Benkelman for Dundy County.
Blue Hill	Banner County Road Dept.	\$10,302	Proposed 75-ton scrap tire cleanup near Harrisburg for Banner County.
Broken Bow	Custer County Recycling	\$20,200	Proposed 150-ton scrap tire cleanup in Broken Bow for Custer County, and portions of the following counties: Blaine, Dawson, Logan, Loup, Sherman, and Valley.
Center	Knox County	\$12,538	Proposed 100-ton scrap tire cleanup in Center for Knox County.
Central City	Merrick County Highway Dept.	\$12,002	Proposed 100-ton scrap tire cleanup in Central City for Merrick County.
Ceresco	Village of Ceresco	\$2,829	Proposed 15-ton scrap tire cleanup in Ceresco for residents.

Columbus	City of Columbus	\$36,102	Proposed 250-ton scrap tire cleanup in Columbus for Platte County.
Cozad	City of Cozad	\$20,084	Proposed 150-ton scrap tire cleanup in Cozad for Cozad residents and the immediate surrounding countryside.
Davenport	Little Blue Natural Resources District	\$15,952	Proposed 130-ton scrap tire cleanup in Hebron for Thayer County.
Davenport	Little Blue Natural Resources District	\$26,662	Proposed 220-ton scrap tire cleanup in Clay Center for Clay County.
Elwood	Gosper County	\$19,631	Proposed 150-ton scrap tire cleanup in Elwood for Gosper County.
Grand Island	Hall County Highway Department	\$13,554	Proposed 100-ton scrap tire cleanup in Grand Island for Hall County.
Holdrege	City of Holdrege	\$40,914	Proposed 350-ton scrap tire cleanup in Holdrege for Phelps, Harlan, and Furnas counties.
Hubbard	Dakota County Road Department	\$10,777	Proposed 80-ton scrap tire cleanup in Hubbard for Dakota County.
Imperial	Chase County	\$13,652	Proposed 100-ton scrap tire cleanup near Imperial for Chase County.
Madison	City of Madison	\$6,382	Proposed 50-ton scrap tire cleanup in Madison for rural residents of Madison County, but not the residents of the City of Norfolk.
Minden	Kearney County	\$24,764	Proposed 200-ton scrap tire cleanup in Minden for Kearney County.
Nelson	Nuckolls County	\$15,780	Proposed 120-ton scrap tire cleanup in Nelson for Nuckolls County.
Norfolk	Lower Elkhorn Natural Resources District	\$92,105	Proposed 625-ton scrap tire cleanup in West Point for Burt, Colfax, Cuming, Dakota, Dodge, Douglas, Sarpy, Stanton, Thurston, and Washington counties.
Omaha	City of Omaha	\$72,864	Proposed 400-ton scrap tire cleanup in Omaha for Douglas County. Will hold five events in the Spring and four events in the Fall.
O'Neill	North Central District Health Department	\$27,759	Proposed 200-ton scrap tire cleanup in O'Neill for Holt County.
Pawnee City	Pawnee County	\$8,151	Proposed 75-ton scrap tire cleanup in Pawnee City for Pawnee County.
Pierce	Pierce County	\$10,520	Proposed 100-ton scrap tire cleanup in Pierce for Pierce, Knox, Cedar, and Madison counties.
Ponca	Dixon County	\$12,298	Proposed 100-ton scrap tire cleanup in Allen for Dixon County.
Tecumseh	Johnson County	\$8,526	Proposed 75-ton scrap tire cleanup in Tecumseh for Johnson County.
Theford	Village of Theford	\$20,196	Proposed 150-ton scrap tire cleanup in Theford for Theford and the surrounding countryside.

Scrap Tire Partial Reimbursement for Purchase of Tire-Derived Products and/or Crumb Rubber Grants

In 2020, \$821,107 was awarded to 43 projects to partially reimburse the purchase of tire-derived products and/or crumb rubber.



Photo provided by the City of Louisville, which was awarded partial reimbursement of the installation of a rubber bonded playground surface. The surface was made from 14,977 pounds of recycled tire rubber.



These photos were provided by Chadron State College, which was awarded partial reimbursement of the installation an artificial turf football field. The project was made from 305,000 pounds of recycled tire rubber.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber-Completed Projects: 34 projects, \$494,146 awarded			
Adams	Village of Adams	\$2,702	25% reimbursement of an 851 sq. ft. poured-in-place rubber playground surface, using 3,750 lbs. of recycled tire rubber.
Arlington	Arlington Public Schools	\$13,650	50% reimbursement of 101,400 lbs. of rubber playground mulch for playground.
Bancroft	Bancroft-Rosalie Community Schools	\$7,825	50% reimbursement of 56,000 lbs. of rubber playground mulch for playground.
Bartley	Southwest Public Schools	\$393	25% reimbursement of 5,850 lbs. of rubber mulch. Mulch used at playground at Southwest Elementary.
Bellevue	Bellevue Public School District	\$30,000	25% reimbursement of artificial turf for the baseball infield at Bellevue West High School. 58,000 lbs. of crumb rubber used.
Blue Hill	Blue Hill Public Schools	\$174	25% reimbursement of the cost of two 6-foot benches, made from 4.5 passenger tire equivalents. The benches were placed outside the school.
Central City	Central City Public Schools	\$2,100	50% reimbursement of the cost of 15,600 lbs. of rubber playground mulch for the elementary playground.
Central City	Central City Public Schools	\$1,130	50% reimbursement of the cost of 7,800 lbs. of rubber playground mulch for the elementary playground.
Chadron	Chadron Public Schools	\$28,222	50% reimbursement of 173,550 lbs. of rubber mulch and 25% reimbursement of two poured-in-place surfaces made from 6,600 lbs. of rubber.
Chadron	Chadron State College	\$101,546	25% reimbursement of artificial turf for the football field at Elliot Field at Don Beebe Stadium. 305,000 lbs. of crumb rubber were used.
Columbus	Columbus Community Hospital Child Care Center	\$4,857	50% reimbursement of 34,597 lbs. of rubber playground mulch and 25% reimbursement of five rubber mats, using 403 lbs. of recycled tire rubber.
Elkhorn	Lord of Life Lutheran Church	\$1,240	25% reimbursement of freight and installation costs, only of 1,512 sq. ft. of rubber playground tiles made from 8,278 lbs. of crumb rubber.
Fremont	Fremont Public Schools	\$9,936	50% reimbursement of 64,000 lbs. of rubber playground mulch for playground at Washington Elementary, which had been damaged by the 2019 flood.
Gibbon	Gibbon Public Schools	\$16,492	25% reimbursement of the cost of a top coating track maintenance system at Gibbon High School. Used 6,290 lbs. of crumb rubber.
Gordon	Gordon Elementary School	\$3,640	50% reimbursement of 23,400 lbs. of rubber playground mulch.
Grand Island	Grand Island Public Schools Foundation	\$129,357	25% reimbursement of an artificial turf football/soccer field at Memorial Stadium. 313,162 lbs. of rubber were used.
Grant	Perkins County Schools	\$3,547	50% reimbursement of rubber mulch and 25% reimbursement of 23 rubber swing mats. 120,680 lbs. of rubber used in project. Installed at the elementary playground.
Hastings	Adams Central Public Schools	\$5,200	50% reimbursement of 39,000 lbs. of rubber mulch for playground at the Adams Central Early Childhood Center.
Hastings	Jeremy Borrell	\$866	50% reimbursement of 5,850 lbs. of rubber mulch, used in a home play area.
Homer	Homer Community Schools	\$13,874	25% reimbursement of an athletic track resurfacing, using 18,000 lbs. of crumb rubber.
Louisville	City of Louisville	\$5,389	25% reimbursement of a bonded rubber playground surface, made from 14,977 lbs. of recycled tire rubber.
Loup City	Central Nebraska Community Action Partnership	\$4,411	25% reimbursement of a 320 sq. ft. poured-in-place playground surface made from 1,045 lbs. of rubber, and

			50% reimbursement of 19,500 lbs. of rubber playground mulch.
Loup City	Sherman County	\$457	25% reimbursement of two 6-foot picnic tables and one 6-foot bench. Tables and bench were made from 15.75 passenger tire equivalents. Placed at the Bowman Recreation Area.
McCook	St. Patrick School/Church	\$9,345	50% reimbursement of 64,350 lbs. of rubber playground mulch and 25% reimbursement toward 6 rubber swing mats made from 451 lbs. of recycled rubber.
Millard	Millard Public School	\$30,000	25% reimbursement of athletic track surface. 160,000 lbs. of crumb rubber were used.
Monroe	Anthony Kush	\$11,537	50% reimbursement of the cost of 177,501 lbs. of rubber mulch to put underneath 1,900 sq. ft. of ground-mount solar arrays to prevent weeds and unwanted grass.
Norfolk	Christ Lutheran School	\$19,735	50% reimbursement of 144,000 lbs. of rubber mulch for playground.
Norfolk	Helping Hands Child Care	\$3,850	50% reimbursement of the cost of 2,000 lbs. of rubber mulch for playground.
Omaha	Morning Star Preschool & Child Care Center	\$750	25% reimbursement of a bonded rubber playground surface. 1,850 lbs. of recycled tire rubber were used.
Ralston	Ralston Public Schools	\$7,500	Reimbursement of 50% of the cost of 50,000 lbs. of rubber mulch. Mulch added to elementary schools' playgrounds.
Red Cloud	Red Cloud Community Schools	\$1,142	50% reimbursement of 7,800 lbs. of rubber mulch. Mulch installed at the Red Cloud Elementary playground.
Sidney	Sidney Public Schools	\$11,120	25% reimbursement of an athletic track maintenance coating system, using 4,030 lbs. of crumb rubber.
Waverly	Villa Marie Home & School for Exceptional Children	\$8,258	25% reimbursement of 3,124 sq. ft. of rubber floor tiles made from recycled tire rubber.
Wisner	City of Wisner	\$3,900	25% reimbursement of two 600 sq. ft. poured-in-place playground surfaces, using 6,000 lbs. total of crumb rubber.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber-Proposed Projects: 9 projects, \$326,962 awarded

Brainard	Village of Brainard	\$8,364	Proposed purchase of 66,300 lbs. of rubber mulch for the city park playground.
Elkhorn	Elkhorn Legion Baseball Post 211	\$33,935	Proposed 25% reimbursement of artificial turf for the infield at Fredrich's Legion Field to be installed in 2020.
Elkhorn	Elkhorn Public Schools	\$81,186	Proposed 25% reimbursement of an artificial turf playing field at Elkhorn North High School.
Elkhorn	Elkhorn Public Schools	\$83,301	Proposed 25% reimbursement of an artificial turf for the football/soccer field at Elkhorn Public Schools stadium.
Elkhorn	Elkhorn Public Schools	\$81,104	Proposed 25% reimbursement of an artificial turf for the field at Elkhorn South High School. Project to be done June 2020.
Elm Creek	Village of Elm Creek	\$9,975	Proposed 50% reimbursement of 74,100 lbs. of rubber playground mulch, to be used in two playground areas in the Village park.
Gothenburg	City of Gothenburg	\$2,362	Proposed 50% reimbursement of 17,550 lbs. of rubber mulch to be purchased for the city playground.

Lincoln	Nebraska Game & Parks	\$23,108	Proposed 25% reimbursement of 148 picnic tables made from recycled scrap tires and plastic, to be placed in 13 State park and recreation areas across Nebraska.
Lyons	Lyons-Decatur Northeast School	\$3,627	Proposed 25% reimbursement of 1,152 sq. ft. of rubber playground tiles.

Scrap Tire Equipment Grants \$337,500 for 1 grant			
David City	Butler County Landfill	\$337,500	50% reimbursement for a tire shredder and electrical service to replace an existing shredder

Litter Reduction and Recycling Grant Program

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

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

Fund Summary Litter Reduction and Recycling Fund July 1, 2019 - June 30, 2020	
Fund Balance June 30, 2019	\$1,051,155
Revenues:	
Litter Taxes Collected	\$2,324,361
Interest, Grant Returns	\$43,275
Miscellaneous Adjustment	\$22,335
Operating Transfer Out	\$-30,000
Net Collections for FY2020	\$2,359,971
Expenditures:	
NDEE Administration	\$384,125
Grant Funds Expended*	\$1,222,738
Total Expenditures FY2020	\$1,606,863
Fund Balance June 30, 2020	\$1,804,263

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

Grant Allocations - Litter Reduction and Recycling Fund

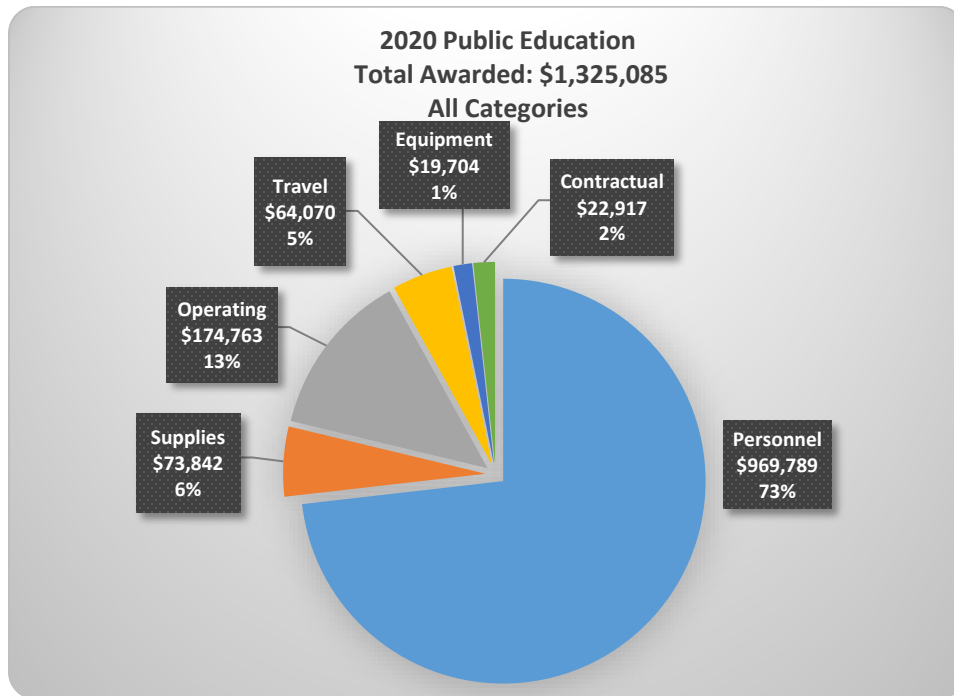
In 2020, \$1,740,176 was awarded to 51 Litter Reduction and Recycling Grant recipients. Grant funding is awarded to several types of programs, including non-profit groups, public and private entities, and over 20 Keep America Beautiful affiliates. Many of these programs utilize the Litter Reduction and Recycling Grant Program funds to leverage additional dollars for a comprehensive, statewide approach to litter reduction and recycling.

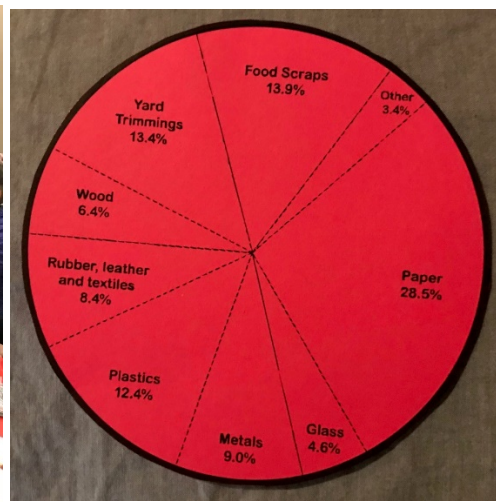
The breakdown is as follows:

Public Education	(76%)	27 grants	\$ 1,325,085
Cleanup	(5%)	11 grants	\$ 89,153
Recycling	(19%)	13 grants	\$ 325,938
Totals	100%	51 grants	\$ 1,740,176

Public Education

In 2020, 27 grants totaling \$1,325,085 were awarded under the category of Public Education. The Public Education programs educate citizens in the areas of litter reduction, cleanup, and recycling through a variety of individual and community activities.





Photos provided by Keep Norfolk Beautiful (KNB), which was awarded a public education grant to promote litter prevention, encourage recycling, and instill proper waste handling habits. KNB works with local schools and community organizations. The above photos were of KNB’s “Waste in Place – Garbage Pizza” activity at the Lower Elkhorn NRD’s H₂O Daze event. This was a hands-on activity lesson for 84 students in fifth grade. Students were educated about ways to reduce or end littering, the importance of extending landfill life by diverting materials, and ways to increase recycling.

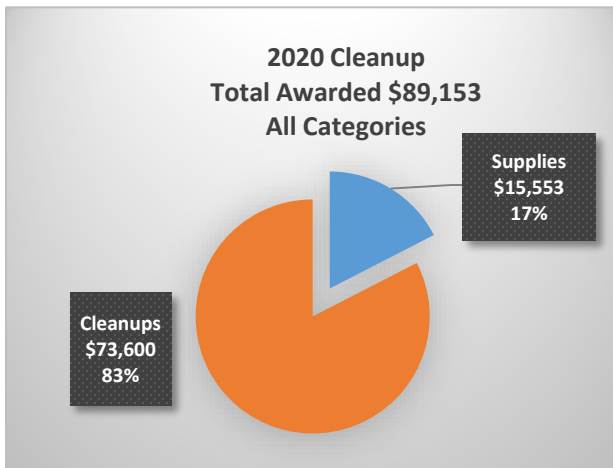
Public Education Awards: \$1,325,085 for 27 grants			
Alliance	Keep Alliance Beautiful	\$68,671	Provide waste reduction and litter prevention education to Box Butte County students and residents. Teach practical habits to reduce, reuse, and recycle.
Beatrice	Keep Beatrice Beautiful, Inc.	\$40,756	Partner with Gage County, the City of Beatrice, and local organizations to educate and encourage recycling and the importance of purchasing recycled content products. Promote "use less stuff" in schools.
Burwell	Loup Basin RC&D Council/Keep Loup Basin Beautiful	\$47,462	Public education program for youth and adults that focuses on litter prevention, waste reduction, and recycling in Central and North Central Nebraska.
Chadron	Keep Chadron Beautiful	\$59,396	Public education to establish new attitudes and behaviors toward litter reduction and recycling. Provide monthly educational presentations to schools. Conduct community presentations and help with litter-free events. Provide cigarette receptacles and pocket ashtrays.
Columbus	Keep Columbus Beautiful	\$36,168	Public education to increase recycling and raise awareness for litter prevention for Platte County by working with the City of Columbus, local schools, businesses, and organizations.
Fremont	Keep Fremont Beautiful, Inc.	\$58,725	Public education program involving schools, community events, and a local media campaign to increase resident participation for properly disposing of waste materials.
Grand Island	Grand Island Area Clean Community System	\$39,601	Provide public education and outreach on recycling and reuse/repurposing to schools, community events, and day cares. Provide education on proper disposal of household hazardous waste. Provide recycling containers and supplies at local events.
Grand Island	Literacy Council of Grand Island	\$22,295	Provide environmental literacy programming for adult English-learning students and the greater community. Litter reduction and recycling education will be provided through direct instruction (groups and one-on-one), the Earth Day Festival, and a public education campaign.

Kearney	University of Nebraska at Kearney	\$375	Funds for signage for the resident halls to support recycling initiatives on the University of Nebraska at Kearney campus.
Kimball	Keep Kimball Beautiful	\$22,955	Provide environmental education for Kimball and the surrounding area on litter prevention and waste management. Work with Kimball Public Schools and Banner County School.
Lexington	Keep Lexington Beautiful	\$13,725	Provide recycling education to Lexington Public Schools students through the after-school program. Work with one middle and four elementary schools. Some students are from immigrant families who have not been exposed to recycling in the past. Also provide recycling education to two assisted living facilities.
Lincoln	City of Lincoln	\$38,197	Programs to reduce illegal dumping and reduce contamination in the recycling streams. Fund a municipal waste measurement tracking program and standardized recycling labeling.
Lincoln	Keep Nebraska Beautiful	\$77,664	Operate the Litter Hotline to increase community awareness of litter. Educate K-12 students with the litter-free school zones program. Help develop after-school curriculum focusing on food waste and resource management.
Lincoln	Lincoln and Lancaster County Health Department	\$135,469	Public education to promote litter reduction and waste management to reduce landfill waste and divert waste when possible and help prevent illegal dumping. Work with schools and local organizations.
Lincoln	Nebraska Recycling Council	\$79,387	Provide outreach and educational programs on recycling and materials management, technical assistance and publications, municipal and regional recycling system design assistance, and business waste audits.
Louisville	Keep Cass County Beautiful	\$66,839	Public education to promote waste reduction and focus on litter prevention, reducing, reusing, repurposing, and recycling. Provide bins and cigarette receptacles for local community events.
McCook	Southwest Nebraska Public Health Department	\$5,000	Create the Green & Clean in Southwest Nebraska Program. Work with community leaders to help change attitudes and approaches for a litter-free community. The goal is to eliminate litter and increase recycling in the 9-county health district. Partner with Red Willow County.
Nebraska City	Keep Nebraska City Beautiful	\$25,155	Promote litter reduction, increase recycling, and raise public awareness through litter cleanups, recycling in the schools, and community presentations.
Norfolk	Keep Norfolk Beautiful	\$34,144	Public education programs to promote litter prevention, encourage recycling, and instill proper waste handling habits. Work with local schools and community organizations.
North Platte	Keep North Platte and Lincoln County Beautiful	\$84,177	Public education to encourage waste reduction and a litter-free environment. Focus on purchasing with recycling in mind, food waste reduction, and composting.
Ogallala	Keep Keith County Beautiful	\$117,260	Public education program with a mission to eliminate litter and increase recycling. Assist with eliminating food waste and provide sustainable waste management in a 6-county area.
Omaha	Firstar Fiber Corporation	\$40,200	Develop the Community Outreach Recycling Engagement (CORE) project to interact with the community and develop strategies that target waste campaigns.
Omaha	Keep Omaha Beautiful	\$122,732	Public education on litter prevention, waste reduction, and recycling. Provide educational activities at schools and community events. Coordinate the 'Waste Not & Recycle Right' campaign.

Scottsbluff	Keep Scottsbluff Gering Beautiful	\$36,463	Public education on litter prevention, waste reduction and recycling in classrooms and at public events. Planning for a household hazardous waste and pharmaceutical take-back event.
Sidney	Keep Sidney Beautiful	\$24,044	Public education programs to help reduce litter and increase recycling in the city of Sidney and Cheyenne County.
South Sioux City	Keep Northeast Nebraska Beautiful	\$27,550	Educational programs to reduce waste and eliminate litter through cleanups and recycling activities for students, businesses, and residents in an 11-county area in northeast Nebraska.
Wayne	City of Wayne	\$675	Hold an annual Earth Day celebration with a free environmental documentary public movie. The purpose of the movie is to educate the community to reduce waste and how to recycle right.

Cleanup

In 2020, 11 grants totaling \$89,153 were awarded under the category of Cleanup. The cleanup programs utilize Nebraska residents of all ages to pick up litter and debris along Nebraska's highways, waterways, recreation lands, urban areas, and other public-use areas within the state. The awarded Cleanup grants propose to clean up litter from 1,083 road-side miles and 2,370 acres of public areas.



The photos at right were provided by Lincoln and Lancaster County Health Department, which was awarded funding to clean up a proposed 276 roadside miles and 1,880 acres in Lancaster County. Despite issues with Covid-19, as of September 1, 2020, 73 miles of roadway and over 840 acres of open space were cleaned by over 500 volunteers contributing 1,200 hours of service. About 3,000 lbs. of litter and 930 lbs. of recyclable material were collected.

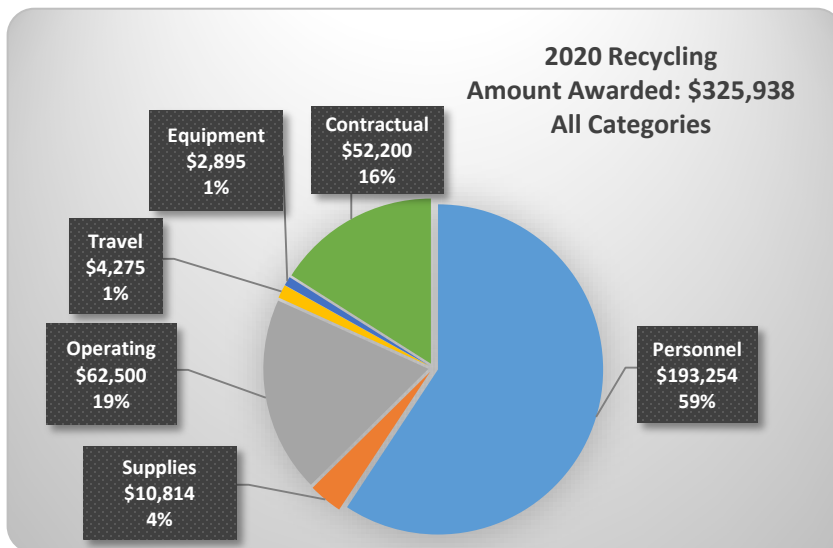


Cleanup Awards: \$89,153 for 11 grants			
Beatrice	Keep Beatrice Beautiful, Inc.	\$6,200	Clean up 100 roadside miles and 60 acres in Gage County.
Chadron	Keep Chadron Beautiful	\$5,060	Clean up 100 roadside miles in Dawes County.
Grand Island	Grand Island Clean Community System	\$6,000	Clean up 50 acres and 100 roadside miles in Hall, Hamilton, and Merrick counties.
Lincoln	Lincoln and Lancaster County Health Department	\$32,600	Clean up 276 roadside miles and 1,880 acres in Lancaster County.
Louisville	Keep Cass County Beautiful	\$1,600	Clean up 16 roadside miles and 80 acres in Cass County.
North Platte	Keep North Platte and Lincoln County Beautiful	\$16,314	Clean up 320 roadsides miles in Lincoln County.
Ogallala	Keep Keith County Beautiful	\$2,800	Clean up 50 roadside miles and 30 acres in Keith County plus parts of Duell, Arthur, and Perkins counties.
Omaha	Keep Omaha Beautiful	\$8,035	Funds for cleanup supplies to assist over 10,000 volunteers to conduct an estimated of 500 litter cleanup events in the City of Omaha.
Scottsbluff	Keep Scottsbluff Gering Beautiful	\$6,000	Clean up 100 roadside miles around Scottsbluff, Gering, Terrytown, Mitchell, and/or Minatare, and along the highway entrance to Scotts Bluff National Monument.
Steinauer	Village of Steinauer	\$544	Clean up 10 roadside miles coming into and around the Village of Steinauer.
Wakefield	ESU#1	\$4,000	Clean up 20 roadside miles and 300 acres in 24 school districts in Cedar, Dakota, Dixon, Knox, Thurston, and Wayne counties.

Recycling

In 2020, 13 grants totaling \$325,938, were awarded under the category of Recycling. The recycling programs provide an alternative to the disposal of solid waste in Nebraska’s landfills. The programs recycle more than just aluminum, paper, glass, and plastic. Materials such as electronic

computer components, paint, aerosol cans, fertilizer, pesticides, and household hazardous waste are collected. Materials are either reprocessed to be used again or are disposed of in an environmentally friendly manner.

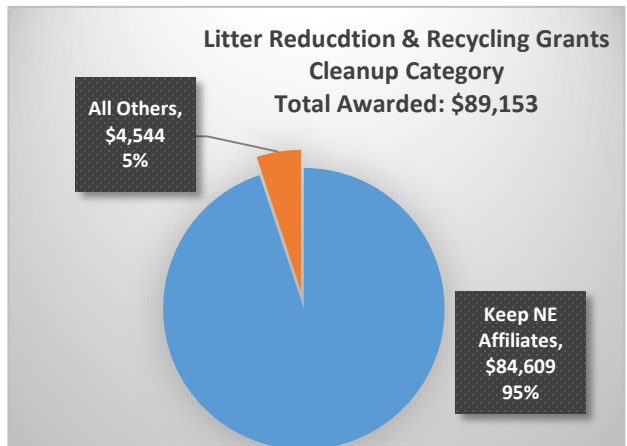
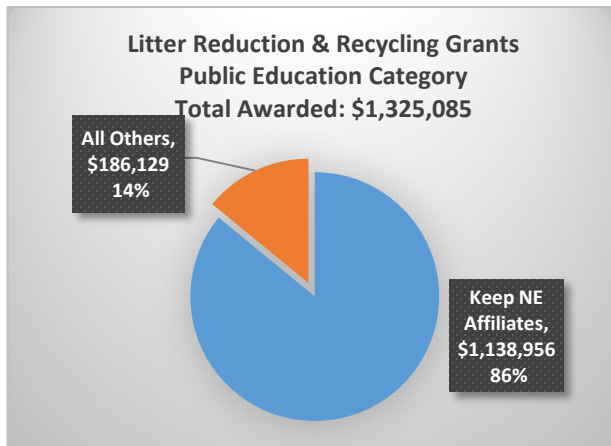
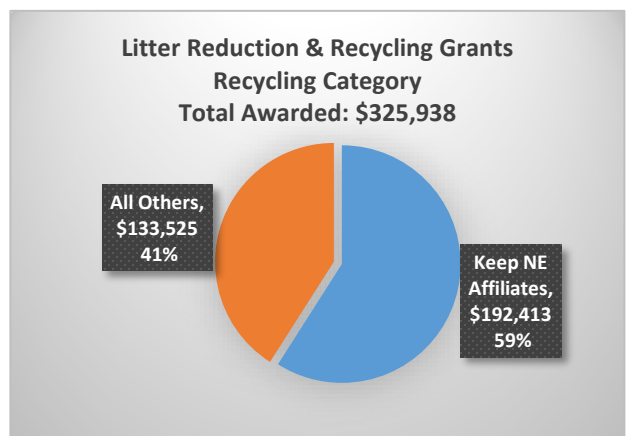
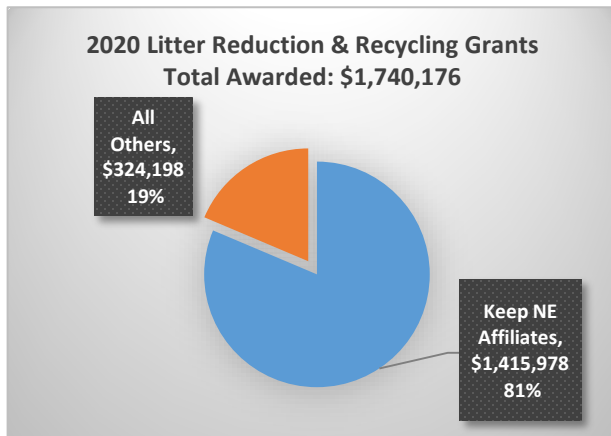


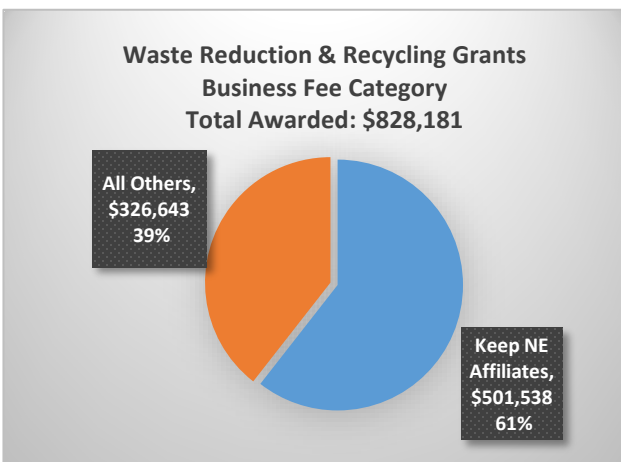
Recycling Awards: \$325,938 for 13 grants			
Alliance	Keep Alliance Beautiful	\$44,752	Funds to operate the recycling center in Alliance serving Box Butte County.
Bertrand	Village of Bertrand	\$2,895	Purchase a trailer to collect and transport recyclables to the closest recycling center in Holdrege.
Columbus	Keep Columbus Beautiful	\$16,100	Hire a recycling coordinator to transport recyclables from two trailer locations in Columbus to the recycling center in Schuyler. This will provide a recycling opportunity for Columbus residents.
Dodge	Village of Dodge	\$11,350	Promote recycling in Dodge by posted signage and educational material mailed quarterly to residents.
Kimball	Keep Kimball Beautiful	\$62,385	Funds to operate the Kimball Recycling Center, the only local option for household recycling needs within a 50-mile radius.
Lexington	Keep Lexington Beautiful	\$1,410	Funds to support five recycling trailers in Lexington that are available year-round.
North Platte	All Business & Commercial Recycling, LLC	\$2,880	Funds toward costs to pick up recyclables from businesses, farmers, and ranchers and return them to the warehouse for processing. ABC will pick up hard-to-recycle plastics, such as grain liners, lick tubs, fertilizer tanks, and jugs.
North Platte	Keep North Platte and Lincoln County Beautiful	\$34,247	Programs to reduce waste generated and increase recyclables collected and restored through reputable end-markets. Partner with schools and businesses. Plan to increase the collection of electronics, non-contaminated yard waste, and household hazardous waste for proper disposal and reuse.
Ogallala	Keep Keith County Beautiful	\$1,000	Funds for advertising expenses for a household hazardous waste collection for Keith County.
Omaha	Angels on Wheels, Inc	\$81,700	Hold 33 electronic waste collection events in the Omaha area; 8 of the events will take place in rural areas.
Omaha	Open Door Mission	\$10,000	Purchase 100 plastic gaylord boxes to be used multiple times, rather than cardboard boxes that can only be used a few times.
Schuyler	Keep Schuyler Beautiful	\$32,519	Operating expenses for the Colfax County Recycling facility, also serving parts of Butler, Platte, and Dodge counties.
Tekamah	Papio Missouri River NRD	\$24,700	Hold four electronic waste recycling collections in Washington, Burt, Thurston, and Dakota counties.

Keep America Beautiful Nebraska Affiliate Funding for 2020

Keep America Beautiful (KAB) is a national non-profit public education organization. Keep Nebraska Beautiful is a statewide affiliate of KAB. There are 20 local KAB affiliate communities in Nebraska. Many of the KAB affiliates receive grant funding from the Litter Reduction and Recycling grant program under the public education category to cover expenses such as personnel and operating expenses. The affiliates teach the importance of reuse, recycling, and reducing waste and litter through school and community-wide education programs.

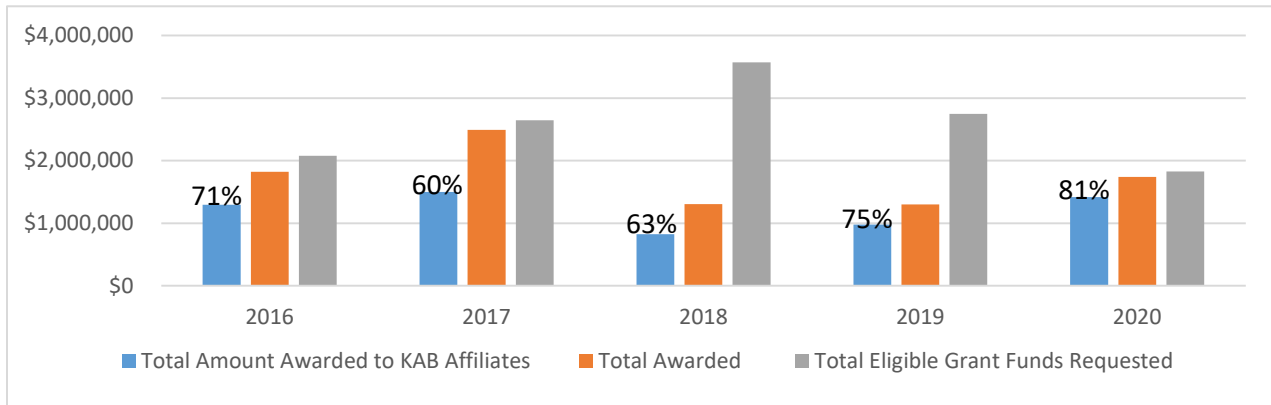
The Litter grant program also includes the cleanup category, which covers expenses to pick up litter along roadways and in public areas. Recycling is the third category under the Litter grant program and is similar to the Business Fee category, of the Waste Reduction and Recycling Incentive Grant Program. Through these last two categories, the KAB affiliates have received funding to operate recycling facilities and household hazardous waste (HHW) facilities. They have also held HHW, electronic waste, and pharmaceutical collections. These events are important because they make sure the materials collected are managed and/or disposed of properly. Although they are not eligible for direct grant funding, some KAB affiliates have worked with local political subdivisions (cities and counties) to organize scrap tire cleanup events.





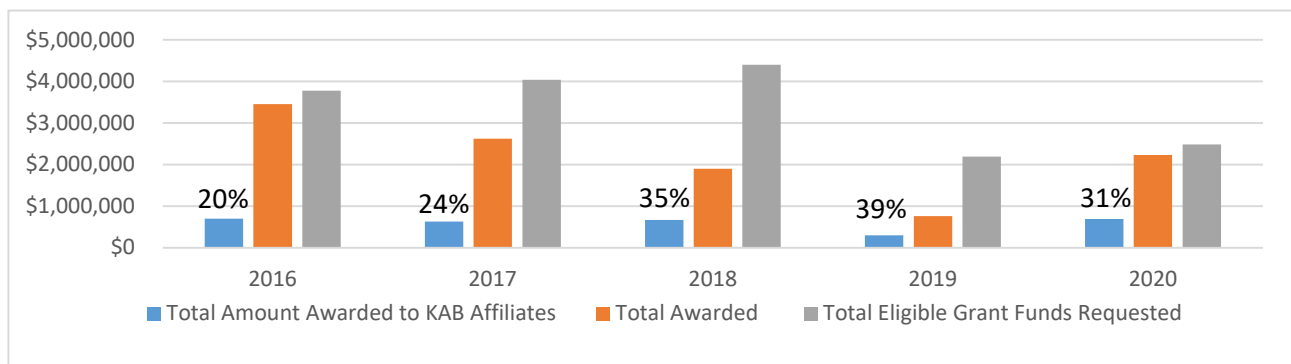
2016-2020 Awarded Litter Reduction and Recycling Grants to Keep America Beautiful (KAB) Nebraska Affiliates

Grant Year	Total Amount Awarded to KAB Affiliates	Percent Awarded to KAB Affiliates	Total Awarded	Total Eligible Grant Funds Requested
2016	\$1,294,329	71%	\$1,821,055	\$2,079,033
2017	\$1,499,123	60%	\$2,491,087	\$2,644,088
2018	\$823,506	63%	\$1,306,370	\$3,571,584
2019	\$976,436	75%	\$1,300,000	\$2,746,775
2020	\$1,415,978	81%	\$1,740,176	\$1,827,643



2016-2020 Awarded Waste Reduction and Recycling Incentive Grants to Keep America Beautiful (KAB) Nebraska Affiliates

Grant Year	Total Amount Awarded to KAB Affiliates	Percent Awarded to KAB Affiliates	Total Awarded	Total Eligible Grant Funds Requested
2016	\$696,947	20%	\$3,454,825	\$3,781,465
2017	\$627,484	24%	\$2,623,217	\$4,036,801
2018	\$668,415	35%	\$1,900,000	\$4,402,481
2019	\$299,956	39%	\$761,545	\$2,188,344
2020	\$689,675	31%	\$2,228,367	\$2,481,692



Illegal Dumpsite Cleanup Program



Photos provided by Washington County.

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

Funding for this program is limited to 5% of the total revenue from the disposal fee collected from landfills in the preceding fiscal year. NDEE encourages municipalities, counties, and other political subdivisions to submit applications for the reimbursement of cleanup efforts. In FY2020, the program provided 24 grants, totaling \$23,016.94. Funds were provided to:

Illegal Dumpsite Cleanup Awards		
City of Lincoln - 11	City of Omaha – 2	Seward County - 6
Lincoln/Lancaster County - 1	Washington County - 3	Clay County - 1

Landfill Disposal Fee Rebate Program

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

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

In FY2020, the program provided \$102,061 to five counties and six cities participating in the program. All of the eleven participants processed their requests through email. This option helps to meet our agency’s goals for waste reduction efforts and process improvement.

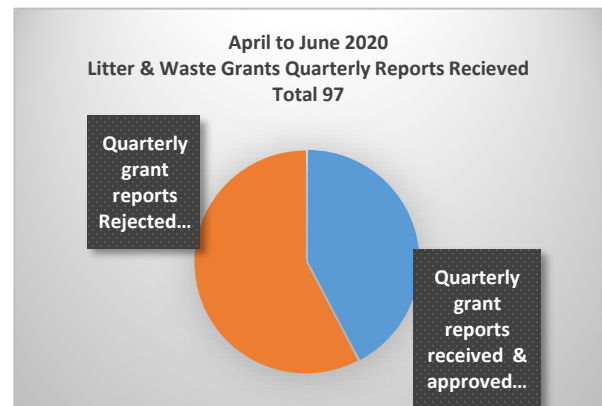
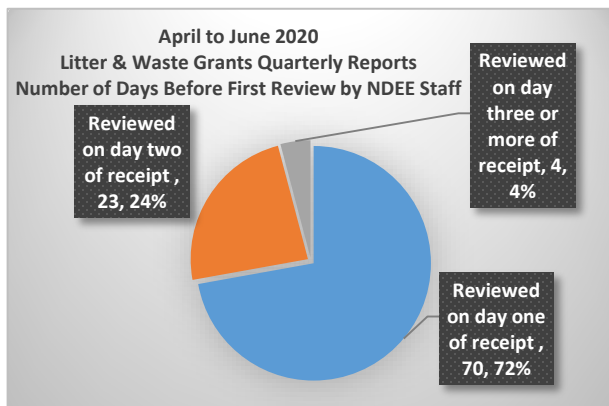
Landfill Disposal Rebate Recipients					
Buffalo County	\$ 6,048	Butler County	\$ 3,132	City of David City	\$ 288
City of North Platte	\$ 3,812	City of Lincoln	\$30,370	Saline County	\$ 2,713
City of Omaha	\$ 52,707	South Sioux City	\$ 596	Jefferson County	\$ 608
Seward County	\$ 1,673	City of Grant	\$ 114		

Grant Reporting

Each grantee is required to submit a report quarterly, even if there is no activity. Below you will find two pie charts reflecting the number of reports received and the time it took the Agency to do the first review for the quarter April through June 2020 and a list of the top reasons for rejection.

The top reasons for report rejection are:

- Payroll, benefits, and/or taxes wrong
- Missing invoices or other documents
- Volunteer calculation missing or wrong
- Travel missing documentation
- Requesting ineligible expenses



Ten-Year Grant History of Amounts Awarded and Requested

Amounts Awarded and Requested for Litter Reduction and Recycling Grant (LRR) Categories

Grant Year	Awarded Recycling	Awarded Public Education	Awarded Cleanup	Total Awarded (All LRR Categories)	Total Eligible Grant Funds Requested (All LRR Categories)
2011	\$1,125,000	\$323,789	\$60,000	\$1,508,789	\$3,730,926*
2012	\$852,500	\$620,003	\$81,675	\$1,554,178	\$2,044,451*
2013	\$821,092	\$751,559	\$109,937	\$1,682,588	\$2,499,447*
2014	\$1,052,402	\$887,141	\$67,164	\$2,006,707	\$3,083,431*
2015	\$1,176,580	\$821,346	\$97,938	\$2,095,864	\$2,266,267*
2016	\$892,975	\$819,597	\$108,483	\$1,821,055	\$2,079,033*
2017	\$1,326,206	\$1,037,895	\$126,986	\$2,491,087	\$2,644,088
2018	\$603,867	\$651,968	\$50,569	\$1,306,404	\$3,571,584
2019	\$423,523	\$826,761	\$49,716	\$1,300,000	\$2,746,775
2020	\$325,938	\$1,325,085	\$89,153	\$1,740,176	\$1,827,643
Total Amounts				\$17,506,848	\$26,493,645*

*Estimate

Amounts Awarded and Requested for Waste Reduction and Recycling Incentive Grant (WRR) Categories

Grant Year	Awarded Disposal Fee	Awarded Business Fee	Total Awarded (Both WRR Categories)	Total Eligible Grant Funds Requested (Both WRR Categories)
2011	\$791,488	\$349,395	\$1,140,883	\$2,446,958*
2012	\$916,461	\$774,715	\$1,691,176	\$2,387,797*
2013	\$816,990	\$549,524	\$1,366,514	\$2,388,515*
2014	\$1,012,371	\$1,107,888	\$2,120,259	\$3,083,431*
2015	\$1,435,558	\$822,233	\$2,257,791	\$3,101,500*
2016	\$2,116,399	\$1,338,426	\$3,454,825	\$3,781,465
2017	\$1,789,483	\$833,734	\$2,623,217	\$4,036,801
2018	\$964,113	\$935,887	\$1,900,000	\$4,402,481
**2019	\$461,365	\$300,180	\$761,545	\$2,188,344
2020	\$1,400,186	\$828,181	\$2,228,367	\$2,481,692
Total Amounts			\$19,544,577	\$30,298,984*

*Estimate

** FY2019 Grant awards were for a 6-month grant term.

Amounts Awarded for Deconstruction, Illegal Dumpsite, and Landfill Disposal Rebates

Grant Year	Awarded Deconstruction Grants	Awarded Landfill Disposal Rebate	Awarded Illegal Dumpsite
2011	\$10,080	\$83,533	\$82,653
2012	\$291,500	\$42,468	\$118,662
2013		\$44,841	\$108,674
2014		\$49,792	\$101,810
2015		\$28,058	\$94,859
2016		\$162,536	\$80,872
2017		\$75,599	\$100,892
2018		\$40,433	\$99,341
2019		\$14,935	\$91,630
2020	\$186,662	\$23,016	\$102,061
Total	\$488,242	\$565,211	\$981,454

Nebraska Voluntary Cleanup Program

The Remedial Action Plan Monitoring Act (RAPMA), initially created in 1995, established the Nebraska Voluntary Cleanup Program (VCP). The VCP provides property owners and parties responsible for contamination with a mechanism for developing voluntary environmental cleanup plans that are reviewed and approved by NDEE. It also gives businesses a way to proceed with property cleanup 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.

NDEE has a Memorandum of Agreement with EPA Region 7, which provides federal approval of VCPs. Under this agreement, any site that joins the Nebraska Voluntary Cleanup Program and successfully completes the cleanup action is assured that EPA will not pursue federal enforcement under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

To date, 62 sites have entered the Voluntary Cleanup Program. Currently, 22 sites are active in the VCP. Two sites have been referred to the EPA Superfund program. Six sites withdrew from the program. Five sites have been terminated from the program due to lack of activity in completing the investigation and/or cleanup. Twenty-seven sites have successfully completed cleanup requirements and have received "No Further Action" letters from NDEE.

NDEE continues to have significant interest from applicants enrolling properties or sites into the VCP. New applicants include the Lewis and Clark/Heartland of America Park Redevelopment project in Omaha, the Elster American Meter Company in Nebraska City, the Former AmFirst Bank Branch in McCook, and West Haymarket Block 4 in Lincoln. Investigation activities are ongoing at the J.A. Woollam, Co. site in Lincoln, the Former Citizens Gas FMGP (former manufactured gas plant) site in McCook, the International Sensor Systems, Inc. site in Aurora, and the former Bladen, Bradshaw, Eustis and York USDA grain bin sites. Cleanup activities are ongoing at the former Farmland Industries UAN Terminal in Doniphan, the Archer Daniels Midland facility in Lincoln, the Dettmer Lease property in Auburn, Hoover Manufacturing in Beatrice, the former Nebraska Solvents Company site in Grand Island, the Vishay Dale Electronics site in Norfolk, the Appleton Electric site in Columbus, and the former Murdock and Utica USDA grain bin sites.



This photo shows the final grade of the former Omaha Steel Castings site following completion of remedial activities. Remedial activities included excavation of contaminated soils, removal of several underground storage tanks and building foundations, and placement of clean soil in excavated areas. The site – conveniently located across from the University of Nebraska Medical Center – is now ready to be redeveloped for new residential housing and commercial businesses.

Cleanup activities were completed at the former Omaha Steel Castings site in Omaha, the former AmFirst Bank Branch in McCook, and the Beatrice FMGP site in Beatrice. Post-remediation monitoring is ongoing at the Lynch Park FMGP site in Omaha and Case New Holland in Grand Island. Issuance of a No Further Action letter is anticipated to be completed next year for the former Omaha Steel Castings site in Omaha. The application fee to participate in the program is \$2,000, and the initial deposit to pay for state oversight costs is \$3,000.

Voluntary Cleanup Program Sites and Status			
Site	Location	Date started	Progress
KN Energy	Holdrege	4/3/95	Completed 5/1/97
Garvey Elevator	Hastings-West	4/13/95	Deferred to EPA Superfund
ASARCO	Omaha-Riverfront	2/5/96	Completed 10/11/01
BNSFRR	Lincoln-N. Havelock	1/17/96	Terminated 12/4/06
Union Pacific RR	Omaha-N. Downtown	1/17/96	Withdrawn 3/7/03
Farmland Industries	Scottsbluff	2/9/96	Completed 7/2/09
Lincoln Journal Star	Lincoln-Downtown	2/26/97	Terminated 1/28/09
Farmland Industries	Hastings-East	6/25/97	Completed 9/2/03
Hastings Area wide	Hastings	12/17/97	Withdrawn 6/23/00
Lincoln Plating Co.	Lincoln	9/17/98	Completed 7/26/12
Witco Corporation	Omaha-North	1/20/99	Completed 6/29/99
BNSFRR	Lincoln-Lot 9 Havelock	4/28/99	Completed 2/20/01
Dana Corporation	Hastings-West	9/27/99	Deferred to EPA Superfund
Ballpark Complex	Lincoln-Haymarket	11/9/99	Completed 9/1/06
Progress Rail Services	Sidney-North	11/22/99	Completed 1/3/05
Brownie Manufacturing	Waverly-Highway 6	4/25/00	Withdrawn 7/19/01
BNSFRR	Lincoln-Havelock Yards	10/26/00	Terminated 12/4/06
New Holland	Grand Island-Southwest	11/9/00	Active
Owen Parkway East	Omaha-Abbott Drive	12/13/00	Withdrawn 11/26/02
Omaha Riverfront Redevelopment	Omaha-Riverfront - 3 sites	5/18/01	Completed 6/18/03, 12/9/03, 11/9/04
Sanford & Son	Lincoln-North	1/22/02	Terminated 4/18/07
Union Pacific RR Child Development Center	Omaha-N. Downtown	3/5/04	Completed 1/13/12
Vishay Dale Electronics	Norfolk	11/13/06	Terminated 4/20/09
Union Pacific RR Nebraska Solvent Site	Grand Island	10/10/07	Active
Archer Daniels Midland	Lincoln	12/11/08	Active
Plaza North Station LLC	Omaha	7/17/09	Completed 2/11/14
Former Pfizer Facility	Omaha	7/28/09	Completed 5/18/16
CVS Pharmacy	Lincoln	10/13/10	Completed 1/28/15
West Haymarket Redevelopment Site North	Lincoln	10/27/10	Completed 12/29/16
Izaak Walton Trap Range	Fremont	10/28/10	Completed 4/13/12
Magnolia Metal Corporation	Auburn	3/9/11	Completed 10/31/13

Voluntary Cleanup Program Sites and Status			
Site	Location	Date started	Progress
Dettmer Lease Property	Auburn	5/19/11	Active
Hoover Manufacturing	Beatrice	5/27/11	Active
Blair FMGP	Blair	6/28/11	Completed 4/4/16
Plattsmouth FMGP	Plattsmouth	6/28/11	Completed 4/4/16
Former USDA CCC Grain Bin Sites	Multiple Sites (Bladen, Bradshaw, Eustis, Murdock, Utica, York)	3/16/12	Active – 6 sites
Vishay Dale Electronics	Norfolk	4/2/12	Active
Lewis and Clark Landing	Omaha	4/20/12	Completed 12/29/16
West Haymarket Redevelopment Site South	Lincoln	6/11/12	Completed 9/18/18
Quality Analytical Services	Omaha	8/2/12	Withdrawn 6/3/14
Nebraska Machine Products	Omaha	10/1/12	Completed 3/26/18
Lynch Park FMGP	Omaha	11/20/12	Active
Appleton Electric	Columbus	3/1/13	Active
Magnus Farley	Fremont	6/16/14	Completed 8/23/18
Beatrice FMGP	Beatrice	11/13/15	Completed 8/22/19
Omaha Steel Castings	Omaha	4/26/16	Active
Former Textron Turf Care and Specialty Products	Lincoln	10/26/16	Withdrawn 6/11/19
International Sensor Systems, Inc.	Aurora	3/2/17	Active
J.A. Woollam Co., Inc.	Lincoln	2/26/18	Active
Former Citizens Gas FMGP	McCook	6/4/18	Active
Former Farmland Industries Doniphan UAN Terminal	Doniphan	10/9/2018	Active
Lewis and Clark Landing/Heartland of America Park Redevelopment Project	Omaha	8/13/2019	Active
Elster American Meter	Nebraska City	9/19/2019	Active
Former AmFirst Bank Branch	McCook	11/07/2019	Completed 6/22/20
West Haymarket Block Four	Lincoln	2/4/2020	Active

Brownfields Assessments and Cleanups

A brownfield site is a vacant or under-used industrial or commercial property where expansion or redevelopment is complicated by unresolved contamination concerns. Common brownfield properties include historic dry cleaners, former gas stations, auto repair shops, and closed manufacturing facilities. These properties can be contaminated with various chemicals such as tetrachloroethylene (PCE) used in dry cleaning, benzene from petroleum fuel, and heavy metals such as lead from manufacturing activities. The Section 128(a) Brownfields Program performs assessments and cleanups at brownfield sites in Nebraska. These assessments and cleanups are performed by NDEE, typically with federal funds, at no cost to interested parties in Nebraska communities. A Brownfields assessment is a preliminary investigation to evaluate the environmental conditions at a property, similar to a Phase I and Phase II Environmental Site Assessment. The brownfields assessment can also include surveys of existing building structures on the property for the presence of lead-based paint, mold or asbestos. Cleanups consist of asbestos abatement and can also involve a variety of measures that are implemented to contain and reduce contamination at a site. During the past year, NDEE has performed eight Phase I assessments, three Phase II assessments, two asbestos surveys, and one lead-based paint survey. NDEE received two applications this year for partial cleanup assistance for removal of asbestos prior to building renovation or demolition. NDEE also used Brownfields funding to assist with cleanup costs of a sludge pit at a former oil refinery property in Gordon.



NDEE used Section 128(a) Brownfields funding to complete a Phase I Environmental Site Assessment, asbestos-containing materials survey, and asbestos abatement at the former Rialto Theater in Cozad. The building closed in 2008 after a part of the roof caved in and it became unsafe for patrons. The vacant building soon became an eyesore and health hazard to the community. Brownfields funding served as a catalyst for safe demolition of the building. Today the Cozad City Council is working on placing a new bandstand in the area for summer concerts and other festivities.

Brownfields Program Enhancement and Public Outreach

Program enhancement and public outreach are key components that serve to educate the public on what a brownfield is and promote how our program can be used by communities for economic development. Workshops are arranged with a goal to increase knowledge and understanding of the environmental stigma attached to brownfield properties and how our resources can serve as a catalyst to bring these properties back to productive reuse. These workshops serve to connect stakeholders of Nebraska communities with resource providers and consist of presentations from a variety of people that play an important role in economic development.

In the past year, NDEE organized and held a Brownfields Resources workshop in Omaha, helped plan and moderate a Region 7 Brownfields Grant Writing Workshop in Kansas City, Missouri, presented on a state-wide live webinar that was subsequently archived on NDEE's website, and began planning another Brownfields Resources workshop slated to take place in McCook next fiscal year. The Brownfields Coordinator was invited to speak at a Hazard Mitigation Funding Workshop at the Upper Big Blue Natural Resources District in York and presented at the Aurora Cooperative Annual Meeting in Grand Island. The NDEE Brownfields Program also sponsored a booth at this year's Nebraska League of Municipalities Mid-winter Conference in order to network and promote our resources to city leaders.



NDEE's Brownfields Coordinator, Taryn Serwatowski, moderates a Revitalization Panel at a Brownfields Resources workshop in Omaha. The panel consisted of representatives from the City of Omaha, the Omaha Land Bank, the Metropolitan Area Planning Agency, and the non-profit organization One Omaha.

Meeting individually with community members is another outreach approach that the NDEE's Brownfields Program uses to assist communities in need. In the past year, the Brownfields Coordinator met with the City of Beatrice and the Southeast Nebraska Development District to discuss strategies in drafting competitive 104(k) Brownfields Grants administered by the Environmental Protection Agency (EPA); met with the Omaha Tribe of Nebraska to discuss resources and next steps for redevelopment of a former service station and food barn; met with NeighborWorks Lincoln to discuss NDEE's asbestos cleanup program; met with the Mayor of Norfolk to discuss resources for a riverfront redevelopment project; met with the City of Ralston to discuss resources and redevelopment in their Opportunity Zone; held a virtual meeting with the City of Lincoln to discuss approaches to tackle their brownfield properties; and participated in a teleconference with the City of Cozad regarding technical assistance for redeveloping the former Tenneco site.

In addition to NDEE workshops, meetings, speaking engagements, conferences and training events provide a great opportunity to network and gain knowledge that can help enhance the program. The Brownfields Coordinator attended and participated in a Region 7 Brownfield Competition and Outreach Strategies workshop in Lenexa, Kansas, to help increase the number of successful EPA Brownfield grantees in Region 7; met with the EPA and Department of Economic Development to discuss a plan to help redevelop Nebraska's Opportunity Zones; attended and participated in the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Brownfields Focus Group Meeting and planned and moderated a resources for small community redevelopment session at the ASTSWMO Annual Meeting – both held in Washington D.C.; and attended the National Brownfields Training Conference in Los Angeles. In addition, the NDEE Brownfields Program awarded travel stipends to several community representatives to attend the conference. The Coordinator is also a member of the NDEE-Nebraska Public Power District (NPPD) Partnership and was actively involved in one partnership meeting and attended the annual NPPD Power Summit.

Other program enhancement activities included working with Nebraska Public Power District on an outreach partnership to increase the number of shovel-ready sites in Nebraska; updating the Section 128(a) Assessment Application to include new Agency name and a section for asbestos, lead-based paint, and mold surveys; creating a separate Section 128(a) Brownfields Inventory Application; and drafting a Brownfields and Voluntary Cleanup Program Frequently Asked Questions Fact Sheet.

Resource Conservation and Recovery Act (RCRA) Program

The NDEE received authorization from the EPA in 1985 to administer portions of the Resource Conservation and Recovery Act (RCRA) program. Nebraska Administrative Code (NAC) *Title 128 - Nebraska Hazardous Waste Regulations* incorporates the applicable RCRA regulations, which the NDEE updates as Federal regulations change.

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

- Helping hazardous waste generators maintain compliance through a Compliance Assistance Program,
- Performing compliance inspections and enforcement actions,
- Investigating complaints,
- Reviewing groundwater contamination monitoring and remediation systems,
- Reviewing permit applications and determining whether permits should be issued for proposed treatment, storage, and disposal (TSD) facilities,
- Reviewing/approving closure and post-closure plans for hazardous waste storage areas and disposal sites,
- Permitting and regulating the clean-up of hazardous waste that has been released to the environment through the RCRA Corrective Action program, and
- Maintaining data systems to support decision-making and making information available to the public.

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

Since March 2019, the NDEE has had ongoing responses to two major activities: statewide flooding in 2019 and COVID-19 pandemic in 2020. The NDEE continues to provide compliance assistance to generators and the public for the disposal of flood-related wastes as part of the Governor's Long Term Recovery Task Force, and regularly examines potential hazardous waste issues related to pandemic response activities. The NDEE is generating and updating guidance documents pertaining to responses to flood and pandemic issues as new questions on waste handling arise.

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

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

are required for treatment, storage, and disposal facilities that have gone through closure and have contamination remaining on-site.

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

Corrective action addresses past and present activities at RCRA facilities that resulted in hazardous waste and hazardous constituents being released into soil, groundwater, surface water, and air. Corrective action requires investigation and remediation of the release of hazardous constituents from regulated facilities. These regulations make current and former owners of a property responsible for past mismanagement of hazardous waste. NDEE has administered the RCRA Corrective Action Program since January of 2017. Significant corrective action accomplishments during FY2019 include:

- Completed Ready for Anticipated Use Determination (YES) for Douglas County State Street Landfill.
- Corrective Action Terminated for Platte Chemical NED000819078.
- Completed Initial Controls in Place by installing proprietary institutional controls for Loveland Products, Inc.
- Referred Elster American Meter Company LLC to Nebraska Voluntary Cleanup Program.
- Referred Platte Chemical NED98639726 to the EPA Toxic Substances Control Act program.
- Issued a public notice on the remedy of proprietary institutional control for Snyder Industries.

EPA continues to move generators to use the e-manifest module that is part of the national RCRAInfo database. Nebraska recommends generators use the e-manifest system, which provides a more efficient way for tracking the shipment of hazardous waste in an electronic process. It provides a notification system so that those in the chain (generator, transporter, and disposal facility) can see and manage the movement of wastes, as well as for States and EPA to lessen the time spent reviewing paper manifests. The reduction in the use of paper as the system is implemented will ultimately reduce costs. This provides multiple benefits including less chance to lose copies, less solid waste, and a reduction in the need to have storage space for all that paper. This provides the public a clearer understanding of wastes generated and disposed, and the process it followed to disposal.

Nebraska's RCRA program helps generators notify and manage their generator status by having them use the myRCRAID module, also within the national RCRAInfo database. In addition, Nebraska recommends that the facility hazardous waste managers prepare their 8700-12 Hazardous Waste notification form electronically. The Department currently has 381 facilities that have requested and received permission to file electronically. NDEE approves the requests electronically, which saves NDEE and the hazardous waste facilities time, equating to money saved. Each generator then has electronic notification (email documentation) of the last time their status was updated and by whom.

As a process improvement plan, the RCRA Section has been emailing confirmations to 8700-12 Hazardous Waste notification changes and to contingency plan submittals. In the past, a formal letter was prepared and mailed certified for each request.

Program Funding

Funding for RCRA program activities is provided by an EPA grant, which requires a 25% state match. Additionally, the Department can charge proposed commercial hazardous waste management facilities a fee to cover expenses for facility siting committee activities. One new hazardous waste treatment facility was proposed in 2017. The facility, near Alda, Nebraska, completed the siting committee activities but did not submit a RCRA permit application and has since closed.

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

Currently, the RCRA Program oversees the following active sites:

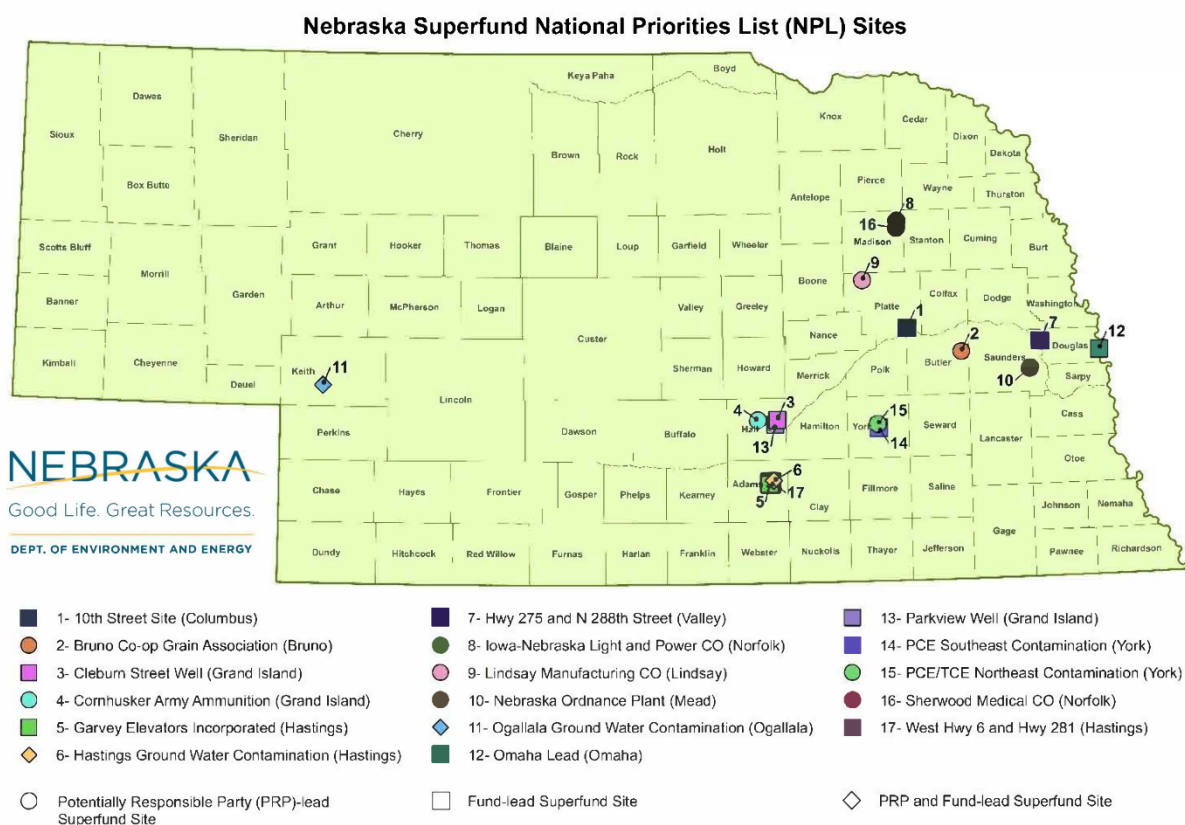
- 95 Large Quantity Generators (greater than 2,200 pounds of hazardous waste generated per month)
- 391 Small Quantity Generators (between 220 and 2,200 pounds generated per month)
- 1,436 Conditionally Exempt Small Quantity Generators (less than 220 pounds generated per month)
- 1 Hazardous Waste Incinerator Facility
- 3 Treatment, Storage or Disposal Facilities
- 18 Hazardous Waste Transporters

Location by County of Large Quantity Generators in Nebraska Regulated Under RCRA			
Buffalo 4	Gage 1	Madison 3	Stanton 1
Butler 1	Hall 4	Otoe 1	Thayer 1
Cuming 1	Hooker 1	Phelps 1	Washington 2
Cheyenne 1	Holt 3	Platte 4	Wayne 1
Dakota 2	Kimball 1	Red Willow 1	York 1
Dawson 1	Knox 1	Sarpy 6	
Dodge 1	Lancaster 23	Scotts Bluff 2	
Douglas 22	Lincoln 1	Seward 2	

Summary of FY2020 Activities		
Compliance Assistance	State	EPA
On-site Visits	0	*
Direct Assistance Contacts	612	*
Public Outreach Presentations (total 325 in attendance)	3	*
Complaints Received	19	*
Complaints Investigated	19	*
Complaints Closes	16	*
*Data not available		
RCRA Inspections		
Land Treatment Facilities	0	0
Treatment, Disposal, and Storage Facilities	0	1
Comprehensive Groundwater Monitoring Evaluations	0	0
Operation and Maintenance Inspections	0	0
Facility Self-Disclosure	0	0
Large Quantity Generator	10	1
Small Quantity Generator	12	2
Conditionally Exempt Small Quantity Generators	5	4
Transporters	1	0
RCRA Permitting		
Closure Plans Finalized	1	0
Permits Issued/Renewed	0	0
Modifications	4	0
EPA Corrective Action Orders	1	0
RCRA Record Reviews		
Financial Assurance Closure/Post Closure	24	0
Corrective Action	1	0

Superfund Program

Thousands of contaminated sites exist nationally due to hazardous waste being improperly managed. These sites include manufacturing facilities, processing plants, landfills, and mining sites. Superfund is a federal cleanup program designed to investigate and cleanup sites contaminated with hazardous substances. Sites on the National Priorities List (NPL) are considered the most highly contaminated and undergo longer-term remedial investigation and cleanups. These sites pose the highest risk to human health and the environment in the nation. The United States EPA, with concurrence from the State of Nebraska, determines whether a site should be listed on the NPL. Superfund forces the parties responsible for the contamination to either perform cleanups or reimburse the EPA-led work. Unfortunately, the responsible parties are often long gone and out of business, so Superfund gives EPA funds and authority to clean up contaminated sites. State cost obligations occur when the responsible party lacks the financial resources so federal funds are used to pay for the cleanup.



The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) became federal law in 1980. The Superfund National Priorities List includes the nation's most contaminated sites. Nebraska has 17 active NPL sites. One site, the Waverly Groundwater Contamination Site, was removed from the National Priorities List on November 20, 2006, upon achieving the cleanup goals for the site. Thirteen of the sites are in the cleanup phase and four sites (York PCE/TCE Northeast Contamination site, York PCE Southeast Contamination site, Iowa-Nebraska Light and Power Co. site in Norfolk, and the Old Highway 275 and North 288th Street site in Valley) are relatively new to the National Priorities List and are in the site study stage.

Numerous other non-National Priorities List sites with known or suspected releases of hazardous substances exist in the state, but are not being addressed through the federal Superfund process.

The investigation and remediation of contaminated sites under CERCLA are the primary responsibility of the EPA and other federal agencies. NDEE 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. This investigation and remedial work at Nebraska Superfund sites makes a visible and lasting difference in communities across the state, giving people healthy places to live and work. 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 around contaminated municipal and private drinking water supply wells or where there is a significant potential for groundwater contamination.

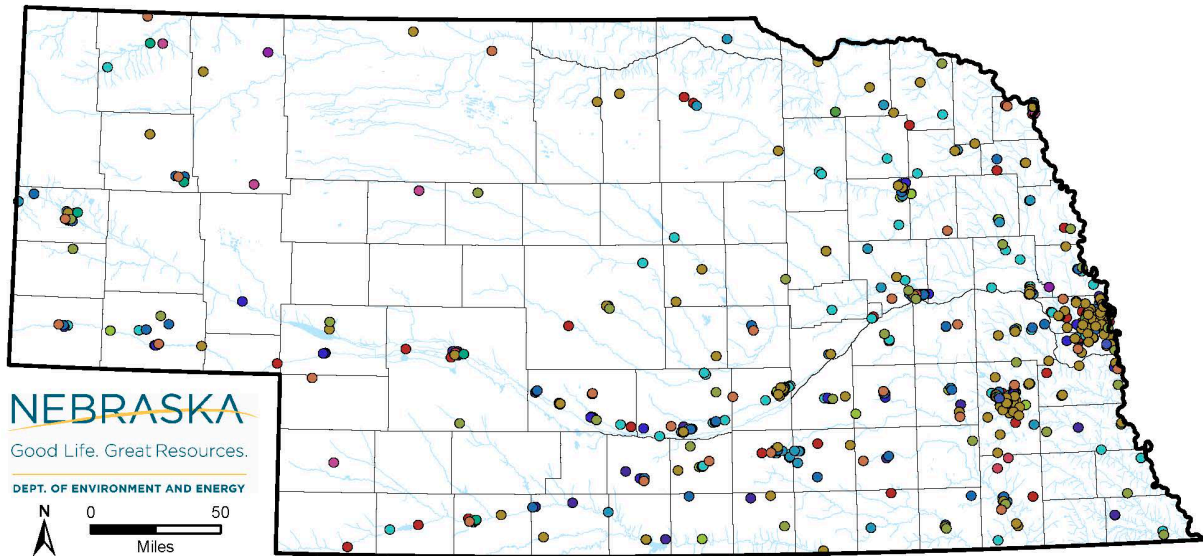
Site assessment steps:

1. Pre-screening assessment. This step is a review of existing information on a potential site to determine whether a release has occurred requiring further evaluation through the Superfund process.
2. Abbreviated preliminary assessment. This step involves collecting background information such as property ownership, operational history, and geology/hydrogeology and performing a site reconnaissance.
3. Site investigation is the third step. It involves sampling environmental media, such as soil, soil gas, and groundwater, and evaluating vapor intrusion into indoor air of building structures. In some situations, a combined preliminary assessment and site investigation is conducted.
4. For large and/or complex sites, an expanded site investigation is performed to collect additional soil and groundwater samples to further define the extent of contamination.
5. In addition, some sites are reassessed if new information is obtained that indicates that a threat to public health and/or the environment may exist.

During the past year, NDEE has performed work on 10 pre-screening assessments, seven abbreviated preliminary assessments, one site investigation, two expanded site investigations, and one site reassessment.

Based on NDEE’s 2017 Statewide Inventory of Per- and Polyfluoroalkyl Substances (PFAS) such as perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), six of the 10 pre-screening assessments conducted by the Superfund Program consisted of sampling private wells for PFAS compounds. PFAS are a large group of man-made chemicals used in consumer products, and industrial processes, and in firefighting foams. In use since the 1940’s, PFAS are resistant to heat, oils, stains, grease, and water—properties which contribute to their persistence in the environment. EPA has identified PFAS as emerging contaminants that can have adverse health effects if found in drinking water supplies. The figure below illustrates the locations of industries present across the state that potentially used or manufactured PFAS based on the 2017 state inventory report.

Nebraska Statewide Inventory Per- and Polyfluoroalkyl Substances



Industries:

- | | | |
|--|---|---|
| ● Chemicals & Allied Products | ● Leather & Leather Products | ● Photographic Equipment & Supplies |
| ● Cutlery & Handtool Manufacturing | ● Military Bases | ● Professional & Scientific Instruments |
| ● Electrical Machinery, Equipment, & Supplies | ● Municipal Airports | ● Rubber & Plastics Products |
| ● Electroplating, Polishing, & Anodizing of Metals | ● Municipal Solid Waste Landfills | ● Textile Mill Products |
| ● Fire Training Areas | ● Paper & Allied Products | ● Transportation Equipment |
| | ● Petroleum Refining & Related Industries | ● Wastewater Treatment Plants |

NDEE also requested federal assistance from the EPA Region 7 Superfund Removal program to install vapor mitigation systems at several commercial and residential properties near a former dry cleaner in Bellevue where a release of tetrachlorethylene (PCE), which was commonly used in the dry cleaning industry, was found in soil and groundwater at the site. The vapor mitigation systems are being installed due to unacceptable levels of PCE in the indoor air of building structures. Vapor mitigation systems are similar to radon control systems where the system captures and redirects the vapor from below the building foundation before it enters the indoor air.

What is Vapor Intrusion?

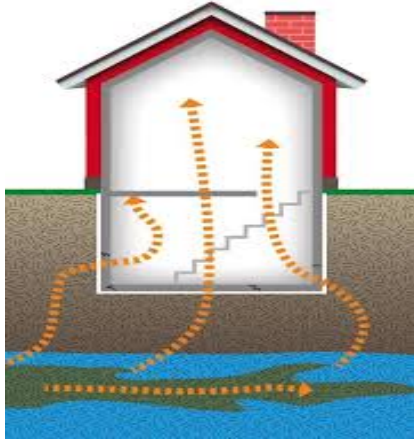


Photo courtesy of the Minnesota Pollution Control Agency

Volatile organic compounds (VOCs) are a class of chemicals that are volatile (evaporate easily) and form a vapor in the air. Vapor intrusion is a way that these volatile chemicals in soil and groundwater near and under buildings can enter and build up inside the buildings, similar to how radon can enter a home. Common uses of VOCs included dry cleaning, treatment of stored grain, and industrial operations. Breathing in certain VOCs at elevated levels can cause adverse health effects based on overall age and health, the length of exposure, and the type of chemical.



Pictured right: An installed vapor mitigation system at a residence; view is of the installed fan (top) and protective cover (bottom).

The former B&T Metals site in Gering was also referred to the EPA Region 7 Superfund Removal program. The City of Gering utilized an EPA Brownfields Assessment Grant to characterize the extent of soil and groundwater contamination at the site with the intent to purchase and redevelop the property. The characterization detected significant levels of lead contamination in soil that would require cleanup. Neither the current property owner nor the City of Gering had the resources to perform the cleanup so the site was referred to the EPA Region 7 Superfund Removal program. The site cleanup was recently completed.

NDEE also reviewed numerous site assessments conducted by EPA in the state and provided recommendations on the need for follow-up action.

NPL Site Management Assistance — The Superfund Management Assistance program provides management and technical support to the EPA at Superfund NPL 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, NPL 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. NDEE also participates in public meetings with citizens and local officials in the development of cleanup plans.

The Superfund law seeks to identify those responsible for contamination to pay for the cleanup. If it is not possible to identify the responsible party, or if the responsible party is insolvent, cleanup is paid for by a combination of Federal and State funds. Of the 17 active sites on the National Priorities List, seven are being addressed by the responsible party and eight are being addressed as fund lead by Superfund dollars, and two are being addressed as both responsible party and fund lead. For fund lead sites, the State of Nebraska enters into contracts with EPA and agrees to pay 10% of the capital costs of constructing the cleanup system, 10% of initial startup operation costs, and 10% of on-going operation and maintenance costs for the first 10 years of the project. After the initial 10 years, the State pays 100% of the operation and maintenance costs. Initially, NDEE funded these costs with Legislative appropriations of general funds. During 2004-2007, NDEE received Nebraska Environmental Trust grant funding to pay these costs. Beginning in FY18, NDEE was authorized to fund these costs through a transfer of up to \$1.5 million from the Petroleum Release Remedial Action Cash Fund into the Superfund Cost Share Cash fund. For FY2020, a total of \$700,881 was transferred to pay for these costs. Future projections of these costs are \$822,163 in FY2021, \$1,165,679 in FY2022 and \$1,891,679 in FY2023.



This photo shows metal scrap and debris at the B&T Metals site in Gering.

During the last year, groundwater monitoring has been conducted at the Cleburn Street site in Grand Island to monitor the performance of the completed in-situ thermal remedy. In-situ thermal treatment utilizes heat to vaporize and remove chemicals in soil and groundwater. This site is the first use of an in-situ thermal remedy in the State. NDEE believes this remedy will save the State a significant amount of future operation and maintenance costs to achieve the cleanup goals for the site. In-situ thermal treatment will also be used at the Hastings Second Street subsite and the York PCE Southeast site in the near future. NDEE will be responsible for 10% of the costs for the capital construction and operation and maintenance costs for these actions.

What is In-Situ Thermal Treatment?

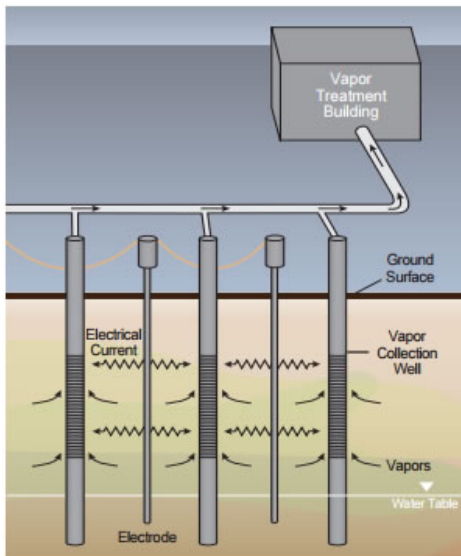


Photo courtesy of the EPA

In-situ thermal treatment uses heat to mobilize chemicals in soil and groundwater. Some chemicals are destroyed underground by the heating process. The remaining chemicals will move toward wells, where they are collected and treated aboveground using other methods.



Pictured right: Photos of the in-situ thermal remedy at the Cleburn Street site in Grand Island. During the remedial action, part of the thermal system was installed beneath Eddy Street (top). The installation included electrode wells, temperature wells, extraction wells, and monitoring wells. Heat is generated by the passage of electrical currents between the electrodes (bottom).

The State began paying 100% of the operation and maintenance costs for the 10th Street Site in Columbus in January 2016, the Ogallala Groundwater Contamination Site in December 2016, and the Hastings Second Street subsite of the Hastings Groundwater Contamination Site in June 2017. For the Columbus 10th Street site, NDEE has entered into an Intergovernmental Agreement with the City of Columbus for City personnel to operate and maintain the groundwater extraction and treatment system and beneficially reuse the treated water for City of Columbus drinking water. NDEE is currently participating in an Adaptive Management Study with EPA and the City of Columbus to determine when it may be possible to shut down the extraction system and utilize an in-situ treatment remedy to clean up the remaining groundwater contamination. The Parkview Well Site in Grand Island will be transferred to the State in September 2021 for conducting operation and maintenance of the groundwater extraction and treatment system. Below is a list of the 17 active National Priorities List sites. Below each name is an EPA web address that provides more detailed information about the site.

What is Groundwater Extraction and Treatment?

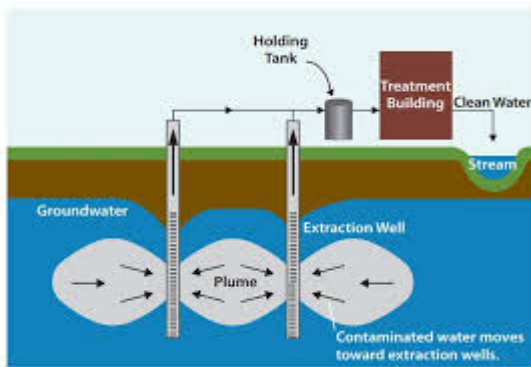


Photo courtesy of the EPA

Groundwater extraction and treatment uses extraction wells to pump groundwater to an aboveground treatment system. Once treated water meets regulated standards, it is discharged for disposal or further use.

Pictured right: The remedy at the Columbus 10th Street site includes a groundwater extraction and treatment system. Treated groundwater is then either beneficially reused as a municipal drinking water supply, or discharged to the Loup River.



Active National Priorities List Sites in Nebraska

Cornhusker Army Ammo Plant (Grand Island)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702020>

Hastings Groundwater Contamination (Hastings)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701973>

Lindsay Manufacturing Co. (Lindsay)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701913>

Nebraska Ordnance Plant (Mead)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702031>

10th Street Site (Columbus)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702001>

Cleburn Street (Grand Island)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701986>

Ogallala Groundwater Contamination Site (Ogallala)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702287>

Bruno Coop Association (Bruno)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702000>

Sherwood Medical (Norfolk)

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702086>

Omaha Lead Site (Omaha)

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

Parkview Well Site (Grand Island)

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

Garvey Elevator (Hastings)

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

West Highway 6 & 281 (Hastings)

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

York PCE/TCE Northeast Contamination

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

York PCE Southeast Contamination

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

Iowa-Nebraska Light and Power Co. (Norfolk)

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

Old Highway 275 and North 288th Street (Valley)

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

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

PFAS sampling conducted at both the Lincoln Air National Guard Base and Offutt Air Force Base detected significant levels of PFAS compounds in soil, groundwater, surface water and sediment. Private drinking water well sampling near the Lincoln Air National Guard Base did not detect PFAS chemicals in any of the private wells above the EPA Health Advisory Limit of 70 parts per trillion for PFOA/PFOS. Future site investigation to characterize the extent of PFAS contamination will be conducted by the Air Force, however, this site will be a low priority nationally as there are no threats or impacts to any public or private drinking water supplies.

The Air Force has committed to conducting private well sampling at Offutt Air Force Base and will prioritize this site as a higher priority site for further site investigation. The Air Force has committed to performing further site investigation and private well sampling in the upcoming year.

Solid Waste Program

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

Duties assigned to this program include:

- Permit issuance, renewal, and modification;
- Response to inquiries related to facility operations;
- Compliance inspections and enforcement actions;
- Investigation of citizen complaints;
- Alternate waste management method approvals;
- Groundwater investigations and groundwater/soil remediation projects at permitted and non-permitted facilities;
- Gas emissions monitoring related to landfills and other permitted sites;
- Closure inspections and monitoring of closure and post-closure activities;
- Conducting public information sessions and hearings related to permits;
- Financial assurance review and monitoring compliance; and
- Assisting regulated facilities and the general public in recycling, re-use, and proper management of waste-like materials.

The program regulates municipal solid waste disposal areas (landfills), construction and demolition disposal areas, fossil fuel combustion ash disposal areas, industrial and delisted hazardous waste disposal areas, and land application sites for the disposal (one time and repeated) or treatment of

special wastes. In addition, solid waste processing facilities, such as compost sites, material recovery facilities, transfer stations, and medical waste processing facilities are regulated by this program.

Permit modification requests are routinely submitted by permitted facilities. Responses to the modification requests are particularly time-critical since the facility may need to expand or construct new waste disposal cells in order to meet their disposal capacity needs.

A Solid Waste Management Programs Study conducted in 2016 provides a complete description of Nebraska's solid waste programs and reported that the average remaining capacity for waste disposal is approximately 39 years.

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

Currently, the Waste Permit and Waste Compliance Programs oversee the following facilities:

Total Permitted Facilities in FY2020	
Municipal Solid Waste Disposal Areas (Landfills)	23
Solid Waste Compost Sites	8
Transfer Stations	36
Materials Recovery Facilities	5
Construction & Demolition Waste Disposal Areas	32
Delisted Waste Disposal Area	1
Processing Facility	2
Fossil Fuel Combustion Ash Disposal Areas	8
Total	115

The following table indicates the number of inspections, complaints and permitting-related activities that the program was involved with in FY2020:

Summary of FY20 Activities	
Compliance Assistance	
Facility Inspections (General)	94
Facility Closure Inspection	1
Facility Construction Inspections	0
Facility Comprehensive Renewal Inspections	13
Complaints Received	135
Complaints Investigated	135
Complaints Closed or Referred	114
Permitting	
New Permits Issued	1

Permit Renewals	13
Major Permit Modifications	4
Public Hearings	2
Permits Transferred	0
Financial Assurance Reviews	134
Facilities Closed	1

Assessment Monitoring and Remedial Measures

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

The first phase is detection monitoring. During this phase, a facility will monitor for a discrete number of contaminants that would be indicative of a potential release of contaminants from the facility. During FY2020, 13 operating and four closed facilities conducted detection monitoring. If one or more of the parameters being monitored exceed background levels, the facility must begin assessment monitoring, which includes a more extensive list of contaminants. During FY2020, 17 operating and three closed facilities conducted assessment monitoring.

If during the assessment monitoring phase, contaminant concentrations are detected above a groundwater protection standard, the facility is required to characterize the nature and extent of the release and, if necessary, assess and conduct remedial measures. In FY2020 remedial measures continued at two active and one closed landfills.

Title 118 Groundwater Investigations and Remedial Actions

Several municipal solid waste disposal areas that closed prior to 1993 have conducted groundwater investigations and remedial actions pursuant to NAC *Title 118 – Groundwater Quality Standards and Use Classification*. In FY2020, groundwater investigations continued at one site, and remedial actions began at one site and continued at eight sites.

Financial Assurance and Fees

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

Program Funding

The Waste Permit Section collects permit fees and annual operating fees for all solid waste management facilities. Quarterly disposal fees, based on cubic yards or tonnage, are collected from all municipal solid waste landfills as well as transfer stations moving waste for disposal out of state. Fifty percent of the quarterly disposal fees are redistributed as grants and for administration of the Waste Reduction and Recycling Incentives Grants Program, and 50% of the quarterly disposal fees are utilized for costs of administering the solid waste program and for investigation and remediation of

contamination from solid waste facilities and for other statutorily authorized activities.

Waste Tire Management Program

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

Waste tire management facilities (except tire dealers) are allowed to accumulate up to 500 tires while maintaining mosquito control and fire prevention measures. Accumulation of more than 500 waste tires at any location is prohibited by rule.

Compliance assistance is an important aspect of this program. Program activities include responding to inquiries from local and state sources, developing guidance documents, conducting site visits, and providing technical advice. The NDEE develops and maintains guidance documents explaining on a wide variety of topics, including 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.

Waste Tire Permit Totals, FY2020 Permitting	
Renewed Hauler Permits	23
New Permits Issued	0
Permits Expired	1
Financial Assurance Reviews	7

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.

Significant Accomplishments

Significant accomplishments in the Solid Waste Program during FY2020 included the following:

NDEE provided assistance to NEMA and local officials as part of ongoing flood response by serving on the Governor's Long Term Flood Recovery Task Force. NDEE provided expertise in recovery efforts, answered questions on debris management, and assisted with the development of the Baseline Conditions and Impact Assessment Report (finalized March 2020) and the State of Nebraska's Long-Term Recovery and Resilience Plan (finalized July 2020).

NDEE also assisted in Hazard Mitigation Planning as part of the support the Solid Waste program gives to its role in managing Emergency Support Function 10 under the State of Nebraska's Emergency Operations Plan. The agency's ESF 10 and 12 coordinators review projects that are being developed to mitigate or address problems across the state from flooding and other hazards. The coordinators review projects and provide input on those that could potentially qualify for flood mitigation.

CHAPTER 6:

Water Programs

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

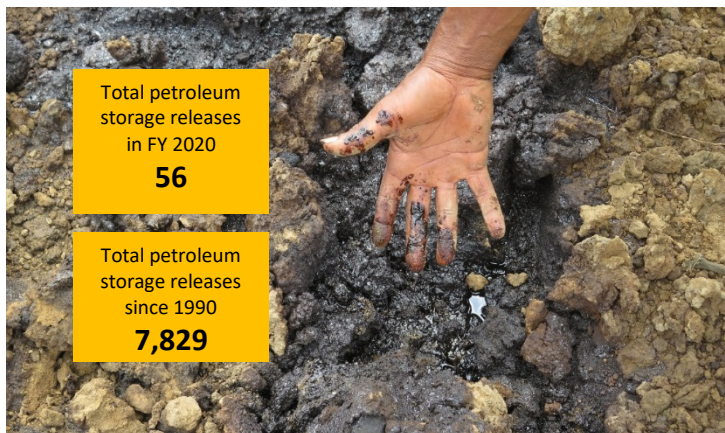
Petroleum Remediation Program

Activities regarding the Petroleum Remediation Program involve two interrelated areas:

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

Investigation and Cleanup

The first step in the Petroleum Remediation Program is the review of tank removal assessment reports or other documentation to determine whether contamination exists. If contamination is present, NDEE decides whether more investigation and cleanup are required. NDEE also determines whether parties who caused the contamination are available and financially capable of assuming responsibility.



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

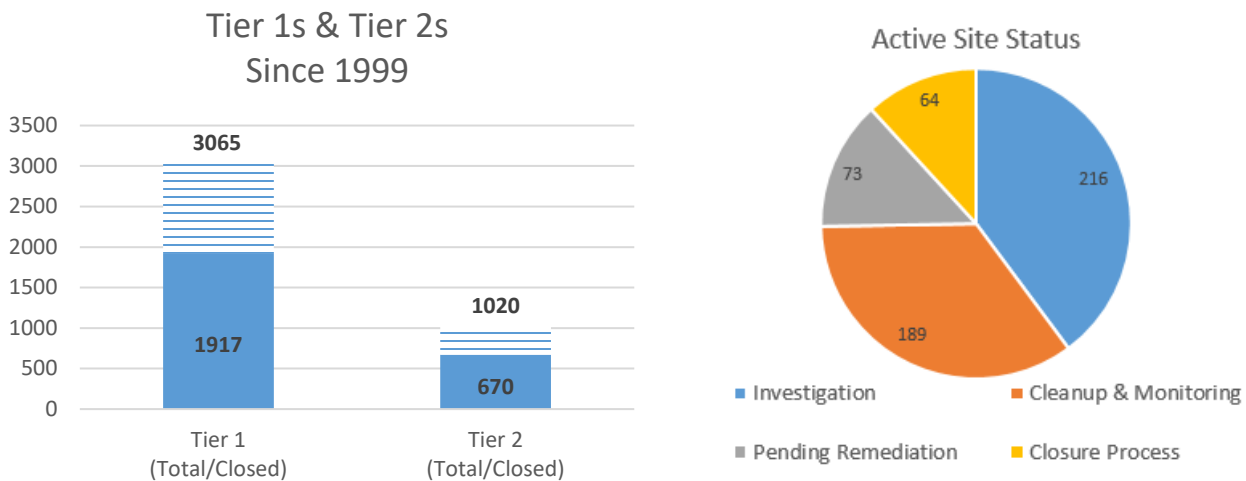
The program has incorporated Risk-Based Corrective Action (RBCA) procedures into regulations and accompanying guidance. The RBCA process allows for evaluation of all petroleum release sites based on the risks posed to human health and the environment. Those sites posing no significant risk

are closed; those posing significant risk are prioritized for further work. Since 1999, the program has collected site-specific information needed for Tier 1 investigations.

A Tier 1 investigation is the first step in the RBCA process, and involves gathering information related to site conditions and levels of contamination present in the soil and groundwater. After a Tier 1 investigation, sites are evaluated to determine if contamination levels warrant a more detailed investigation via Tier 2.

During a Tier 2 investigation, NDEE gathers additional information regarding the areas of concern only. After Tier 2 investigations, sites are evaluated to determine if cleanup is required. If sites fail Tier 2, they are normally scheduled for cleanup.

In FY20, NDEE initiated 92 Tier 1 investigations and nine Tier 2 investigations.



Financial Assistance – Petroleum Release Remedial Action Reimbursement Fund

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



The Fund was created by the Legislature in order to help tank owners pay for the costs associated with assessing and cleaning up any petroleum releases from tanks as well as meet the \$1 million financial responsibility requirement established for underground storage tanks. Costs for both underground and above-ground tank releases are eligible for reimbursement. The program's activities in this area include receiving and processing applications for reimbursement from the fund and subsequently issuing reimbursements for eligible costs. To assist applicants, the program developed a guideline entitled "Reasonable Rates Schedule and Reimbursement Guidance Manual," which is available on the NDEE website.



Revenue was just over \$11.7 million in FY20. During the year, NDEE reimbursed about \$3 million to Responsible Persons for work done at 158 different sites, and \$6.1 million was spent to clean up orphan sites. An additional \$700,881 of revenue was transferred to NDEE's Superfund program, as directed by legislation passed in 2017. As of June 30, 2020, over \$245 million has been spent on site cleanups.

Responsible Person Sites

For the last several years, there have been hundreds of sites where the Responsible Person is known, but NDEE did not require work to begin. These were lower priority sites, and there was not sufficient funding to reimburse potential costs under the Reimbursement Fund. The sites were placed on a waiting list (backlogged) until funding was available. NDEE has worked steadily in the last several years to bring that list to zero. By November 2018, there were no more responsible person sites waiting on NDEE to require and approve work. Now when new spills are reported, NDEE works on them immediately, which helps speed property transactions and redevelopment.



Active leak in Chadron

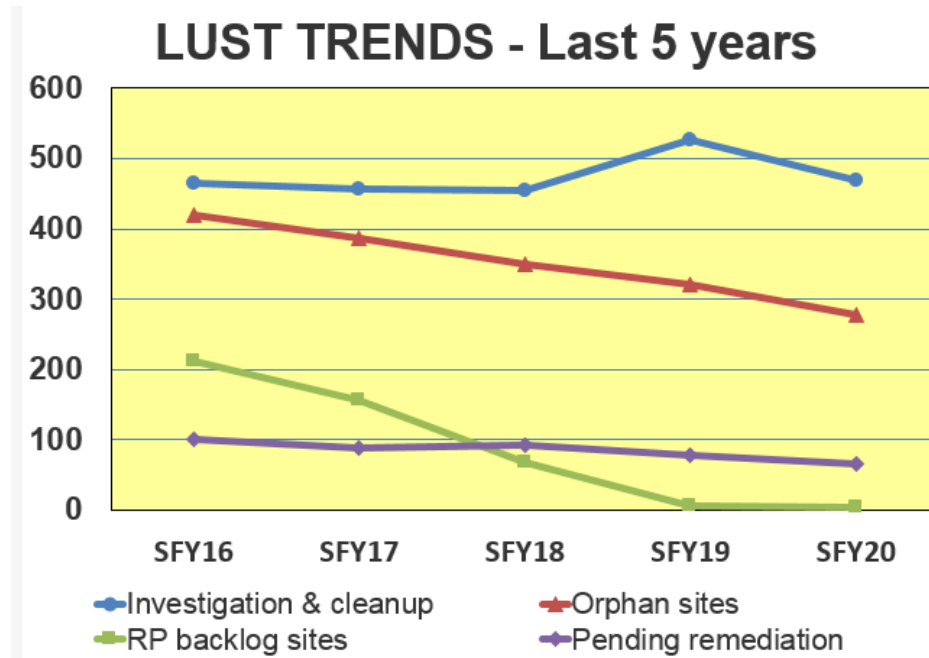


Orphan Sites

In situations involving "orphan" sites (sites where there is no viable Responsible Person), investigation and remediation costs are paid with federal and/or state funds. In FY20, 52 orphan sites were activated for investigation and/or cleanup using State contractors. At the end of FY20, there were 280 orphan sites backlogged and not yet investigated.

Leaking Underground Storage Tanks

Another name for the entire program is the acronym **LUST**. Many states use this term for their state petroleum cleanup programs.

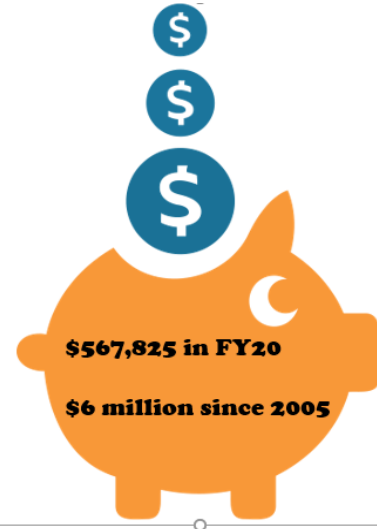


Equipment Reuse

As sites are undergoing cleanup, NDEE pays for the purchase of remediation equipment. When sites are cleaned up and closed, NDEE seeks to reuse that equipment at other sites. Since June 2005, NDEE has reused hundreds of pieces of equipment, thus greatly reducing the need to buy new equipment. This reuse program has saved Nebraska taxpayers over \$6 million in new equipment costs and allowed that money to be used for cleanup of additional sites.



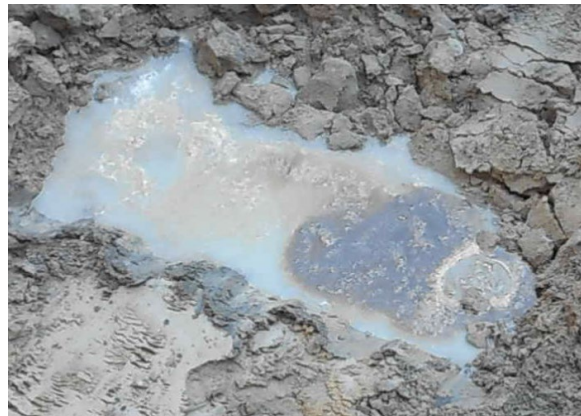
Some of the inventory of remediation trailers waiting to be reused



Amount saved from reused equipment

Voluntary Remedial Action

Responsible persons are able to perform voluntary remedial action prior to NDEE’s approval of their plans and still be eligible for reimbursement consideration in the future. This allows sites to move forward on their own initiative. To date, 235 suspended or backlogged leaking underground storage tank sites have been closed based on voluntary submittals.



Petroleum on ground water in tank excavation in Lincoln’s developing Telegraph District

New Technologies

NDEE has always considered and implemented new methods of identifying and remediating petroleum releases. Working with both the University of Nebraska-Lincoln (UNL) and private industry, the Department has tried many new technologies over the last 25 years. Currently, chemical injection and remote sensing are being tried throughout the state.



Surface Spills

Many trucking companies, petroleum distributors, emergency response managers, and law enforcement agencies are unaware of Nebraska regulations regarding response to a petroleum spill onto road surfaces and shoulders — especially when groundwater is threatened.

Therefore, the Petroleum Remediation Section developed a brochure for distribution throughout the state explaining NDEE regulations and recommendations for cleaning up after a spill. We have distributed the brochure to all Nebraska county emergency managers, many law enforcement entities, trucking companies, and private citizens.

The brochure and further information is also available on our website at <http://dee.ne.gov/NDEQProg.nsf/OnWeb/PSS>.

**What to do
when you've had
a fuel spill**
(Over the Road Vehicle Incidents)
Nebraska Department of
Environment and Energy (NDEE)
March 2019



When and how do I report a fuel spill?

- Call NDEE M-F, 8-5 at **402-471-2186**
- Non-office hours, call the Nebraska State Patrol (NSP) Dispatch at **402-479-4921**. NSP will contact NDEE, who will call you back
- NDEE will ask you:
 - when the spill occurred,
 - location of the spill,
 - amount spilled,
 - what has been done to contain or recover the spill, and
 - who is responsible for the spill.

Frequently Asked Questions about the Sale and Purchase of a Retail Petroleum Convenience Store
January, 2020

The Nebraska Department of Environment and Energy (NDEE) Petroleum Remediation Section often fields questions from real estate agents, lenders, and the public regarding the sale or purchase of a convenience store/gas station. Many of the questions relate to concerns about environmental problems due to leaks of petroleum from the fuel storage tank system or concerns about costs the buyer may incur if the system needs to be upgraded to meet current requirements. Here are some commonly asked questions and suggested methods the public can use to gather information needed to make an informed buying or selling decision.



Contact for more information

NDEE-Petroleum Remediation Section	(402) 471-2186
http://deq.ne.gov/NDEQProg.nsf/OnWeb/LUST	
NDEE Records Management Section	(402) 471-3557
http://deq.ne.gov/NDEQProg.nsf/OnWeb/PRR	
NE State Fire Marshal-Fuels Division	(402) 471-9465
https://sfm.nebraska.gov/fuels-safety	

Sale & Purchase of Retail Petroleum Convenience Store

The Petroleum Remediation Section (PRS) often fields questions from real estate agents, lenders, and the public regarding the sale or purchase of a convenience store/gas station. Many of the questions relate to concerns about environmental problems due to leaks of petroleum from the fuel storage tank system or concerns about costs the buyer may incur if the system needs to be upgraded to meet current requirements.

As a response, PRS developed a brochure for distribution to the public containing some commonly asked questions and suggested methods the public can use to gather information needed to make an informed buying or selling decision.

More information is available on the Petroleum Remediation Section website at <http://deq.ne.gov/NDEQProg.nsf/OnWeb/LUST>.

Water Quality Monitoring and Assessment Programs

Surface Water Assessment Programs

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



Canoeing at Holmes Lake, Lincoln

Nebraska-Lincoln (UNL), Central District Health Department (CDHD), and United States Geological Survey (USGS).

Each year, surface water samples are collected at hundreds of locations across the state, resulting in over 36,000 individual field measurements and laboratory analyses.

NDEE’s surface water monitoring programs have different purposes. Brief descriptions of the basin monitoring strategy, as well as other water quality monitoring programs, are provided below. Additionally, a more detailed overview of the programs are provided in the Department’s annual publication Water Quality Monitoring Programs Report available online.

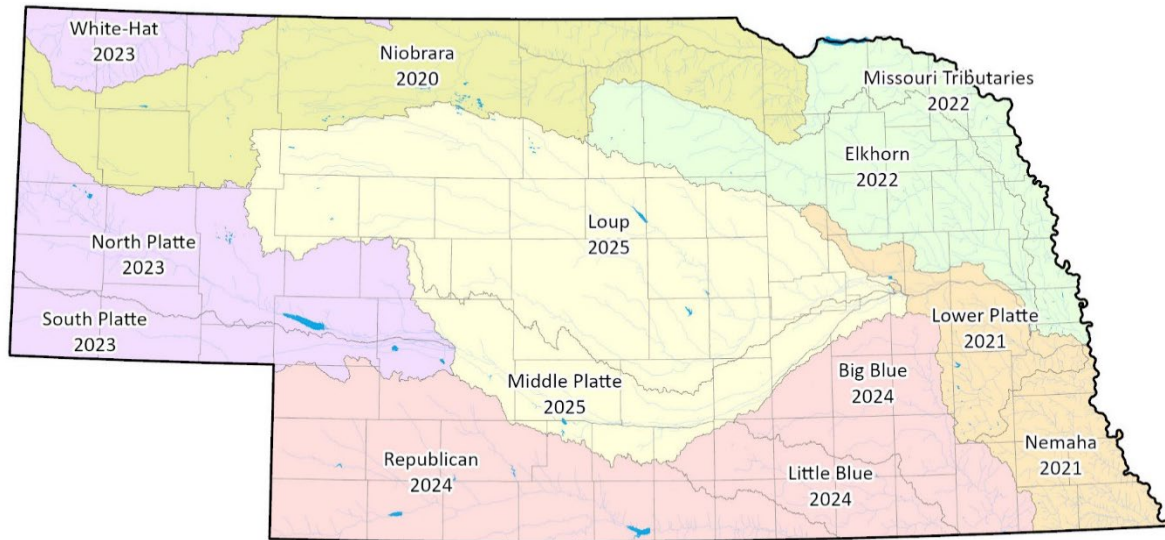


Brief descriptions of the basin monitoring strategy, as well as other water quality monitoring programs, are provided below. Additionally, a more detailed overview of the programs are provided in the Department’s annual publication Water Quality Monitoring Programs Report available online.

Basin Rotation Monitoring Program

- Geographically focuses water quality sampling in one to three major river basins per year.
- Weekly monitoring of flowing waters (rivers and streams) May-September.
- In 2020, NDEE sampled 42 sites within the Niobrara River basin.

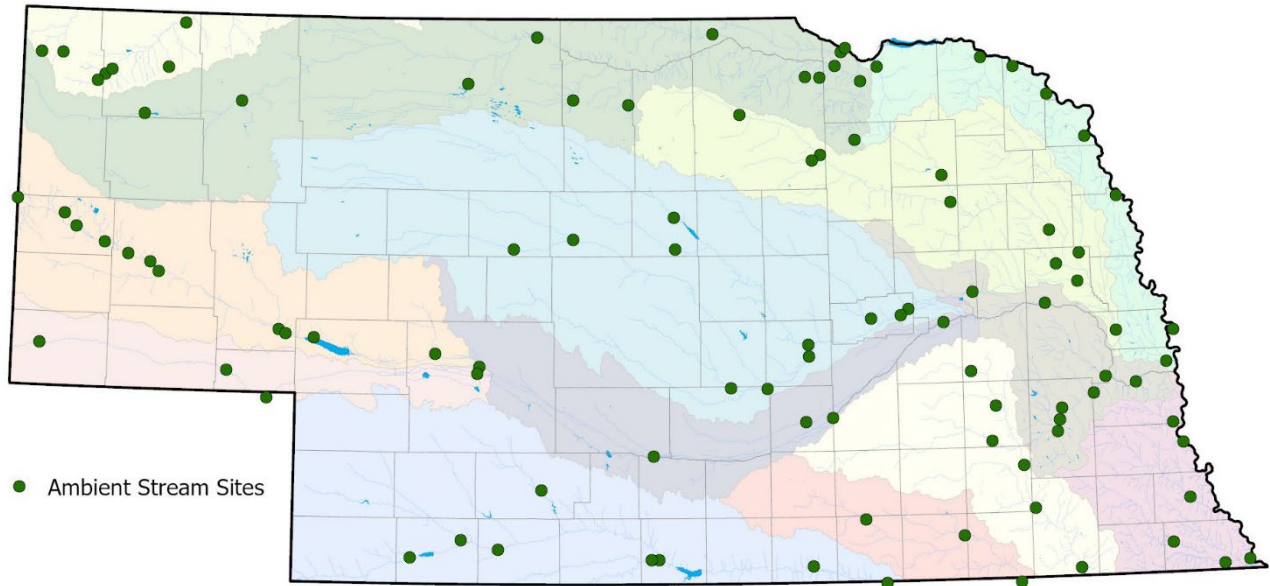
Six-year basin rotation monitoring schedule



Ambient Stream Monitoring Program

- Network of 101 fixed stations.
- Main stem and tributary streams.
- Thirty-four parameters analyzed at each network sampling location.
- Collected monthly, year round.

Locations of NDEE Ambient Stream Monitoring Program sites

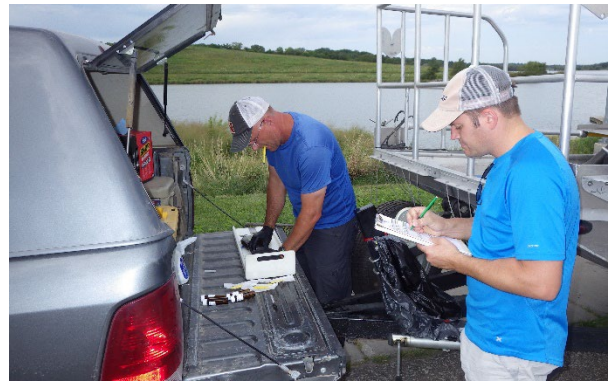
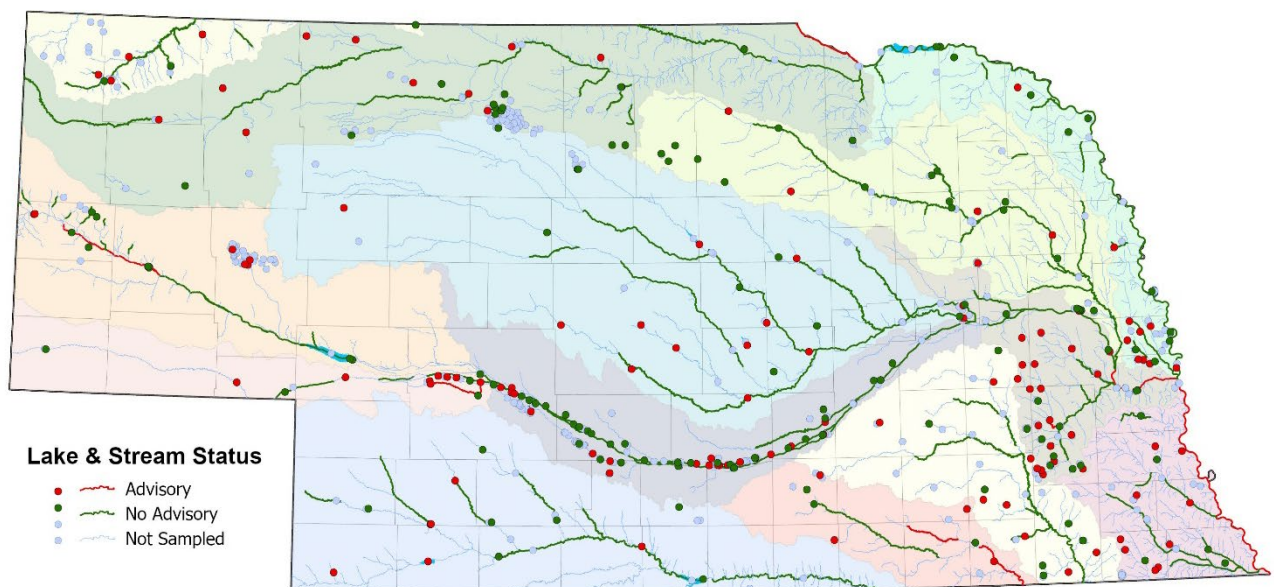
**Public Beach Monitoring Program**

- Nebraska is on the forefront of national sampling and public notification for events related to Harmful Algal Bloom (HAB), also known as blue-green algae.
- Up to 54 public beaches are sampled weekly during the summer months of May-September.
- Samples analyzed for *E. coli* bacteria and the microcystin toxin.
- Risks to humans come from external exposure (prolonged contact with skin) and from swallowing the water.
- Symptoms from ingestion can include headaches, nausea, muscular pains, central abdominal pain, diarrhea, and vomiting. Severe cases could include seizures, liver failure, and respiratory arrest. The severity of the illness is related to the amount of water ingested, and the concentrations of the toxins.
- Children, because of their smaller body size, are at risk for more intensive symptoms.
- Results and beach alerts are issued each week during the summer on the BeachWatch Listserv and NDEE's web site. Signs are posted at affected beaches. The weekly and past results are available online at <https://deq-iis.ne.gov/zs/bw/>. Directions to sign up for the Listserv are at the bottom of the BeachWatch web page.



Fish Tissue Monitoring Program

- Assess fish tissue for toxins, such as mercury and polychlorinated biphenyl compounds (PCBs).
- Current fish tissue consumption advisories at 139 locations.
- In 2020, 25 lakes and 11 river and stream locations were sampled within the Niobrara River basin.
- The most recent report is online.

**Lake and Stream Fish Consumption Advisory Locations in Nebraska Through 2019****Stream Biological Monitoring Program**

- Stream sites assessed for the overall health of the streams.
- Diversity and numbers of resident aquatic macroinvertebrate and fish communities evaluated.
- Sites chosen with a probabilistic sampling design within the framework of the Basin Rotation schedule.
- 48 sites (15 completed in partnership with Nebraska Game & Parks Commission) were sampled in 2020 within the Niobrara River basin.





Ambient Lake Monitoring Program

- Twenty-six lakes and reservoirs sampled monthly during May-September.
- Evaluate water quality suitability for fish and aquatic organisms to survive and reproduce.
- Long-term effects can be assessed.

Fish Kill and Citizen Complaint Investigations

- Dead fish and other surface water concerns are relayed to NDEE throughout the year.
- On-site investigations and water quality sampling performed at many of the complaints.
- Seven fish kills investigated from July 1, 2019 to June 30, 2020: six were from low dissolved oxygen levels and one resulted from an unknown cause.
- Sixty-three complaints were taken by the Surface Water Unit in the last year, many were forwarded to other NDEE programs or other agencies.



Stream Nutrient Assessment Pilot Study

- Assess the impacts of nutrients on the primary producers (algae and other materials that form on surfaces and within the water column) of Nebraska's streams, and determine if local degradation occurs due to elevated nutrient loads.
- Streams chosen are also sampled as part of the Basin Rotation Monitoring Program.
- Eight streams in the Niobrara River basin were sampled for this study in 2020.

Integrated Report —States are required by the federal Clean Water Act to prepare a biennial water quality report called the Integrated Report. The Integrated Report provides a comprehensive summary of the status and trends of surface water quality in Nebraska, and includes a list of impaired surface waters that do not support their assigned beneficial uses. The 2018 Water Quality Integrated Report, which was approved by the EPA in April 2018, is available on NDEE's web site at <http://deq.ne.gov/Publica.nsf/Pages/WAT234>. Work on the 2020 Integrated Report is underway and expected to be completed by the end of calendar year 2020.

Groundwater Assessment Programs

Groundwater Quality Monitoring Report

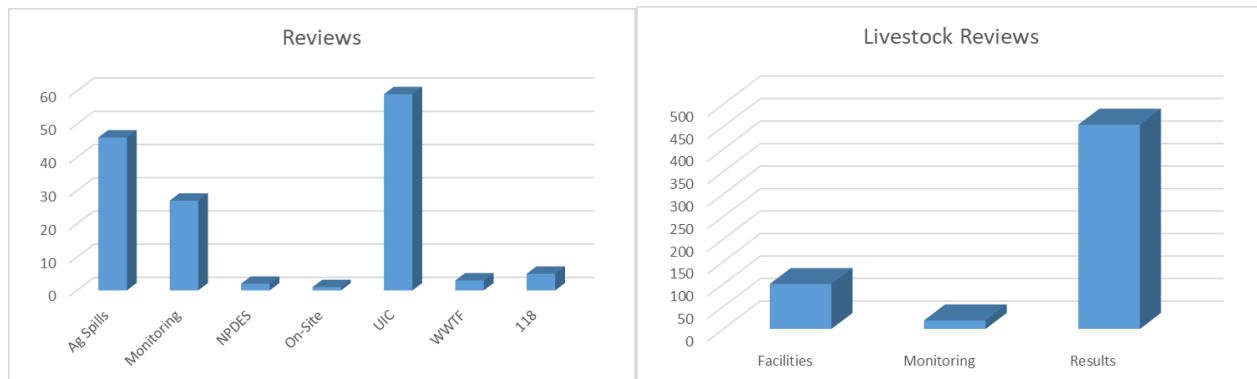
The Groundwater Quality Monitoring Report summarizes the water quality monitoring efforts of the Natural Resources Districts, NDEE, and other state, local and federal agencies. The 2019 Groundwater Quality Monitoring Report can be accessed on the NDEE website at http://deq.ne.gov/publica_nsf/PubsForm.xsp?documentId=7AA33E82AAC4119C862584C400682884&action=openDocument. Statistics and maps showing nitrate-nitrogen groundwater monitoring results as well as statistics for three of the 241 agricultural chemicals detected in the state are presented. The report uses data from the Quality-Assessed Agrichemical Contaminant Database for Nebraska Groundwater, developed cooperatively by the Nebraska Department of Agriculture, University of Nebraska-Lincoln, and NDEE. These data are accessible to the public on the Nebraska Department of Natural Resources website, <https://dnr.nebraska.gov>.



Hydrogeologic Studies and Reviews

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

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



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. There are six classes of injection wells:



- Class I injection wells are for the injection of wastewater below the lowermost underground source of drinking water.
- Class II wells are associated with oil and gas production, and are regulated by the Nebraska Oil and Gas Conservation Commission.
- Class III wells are used to inject fluids for the purpose of extracting minerals.
- Class IV wells are associated with the injection of hazardous waste, are illegal, and have never been allowed in Nebraska.
- Class V injection wells are any wells not included in the other specific classes.

Common examples of Class V wells include open loop heat pump systems, large capacity septic systems, and subsurface drip irrigation systems. Class VI wells are associated with the injection of carbon dioxide for permanent disposal. This class of wells is currently regulated by the EPA.

Currently the State of Nebraska has four permitted Class I wells. Two of these are issued to Crow Butte Resources, Inc., a uranium facility near Crawford. The other two are issued to the City of McCook and Kugler Oil Company in Culbertson. The only Class III wells in the state are at the Crow Butte Resources, Inc. Class V wells are located throughout the state and make up the majority of Nebraska UIC wells.

Mineral Exploration Program

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

Wellhead Protection

The State Wellhead Protection (WHP) program is a voluntary program, which assists communities and other public water suppliers in preventing contamination of their water supplies. State WHP 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. One hundred eighteen community water supplies have approved Wellhead Protection plans as of August 31, 2020.

In 2019, NDEE began using the Groundwater Evaluation Tool (GET) to model WHP areas for Nebraska's Community Drinking Water Systems. GET is a web-based subscription service which utilizes seven regional numeric groundwater models to run reverse particle tracking, which creates time-of-travel capture zones. Statewide models cover 511 of the 522 community groundwater Public Water Systems (PWS) that produce their own water. This tool has allowed NDEE to become more efficient in updating WHP areas throughout the state while increasing the quality of models and reports it produces for Nebraska



communities. GET can also be used to assist communities in understanding the water quality in areas where new wells may be placed.

Source Water Assessment and Protection

Source Water Protection (SWP) funds have been distributed to complete 100 separate Source Water Protection projects throughout the state since 2004. In SFY2020, Source Water Protection funds were distributed to the following public water systems: Ashland, Creighton, Dodge, Plainview, and West Knox Rural Water System. The total amount available to award was \$150,000.



The Source Water Protection program coordinates closely with the CWA 319 program to engage Nebraska's communities and producers and develop Drinking Water Protection Management Plans (DWPM) that proactively address nonpoint source contamination. SWP grant funds (from Drinking Water State Revolving Fund set-asides) are used to develop the plans, encourage community involvement through stakeholder groups, and put on public meetings to promote the projects. The plans are alternative 9-element watershed management plans that, when accepted by EPA, make communities eligible for CWA 319 funding. 9-Element Watershed Management Plans are developed and implemented to address nonpoint source pollution issues that affect water quality. They are non-regulatory, community-based plans with the main goal to remove impaired waterbodies from the 303(d) list. Approved 9-element watershed management plans allow project sponsors to apply for nonpoint source pollution program (319) grants from NDEE. This funding pool provides more funding and longer term grants (five years) that the Source Water Protection Grants are not able to do. These plans

bring together NRDs, NRCS, and local stakeholders to increase on-the-ground agricultural best management practices and increase outreach and education efforts in Nebraska's communities. The first Drinking Water Protection Management Plan in the nation was accepted by EPA in the summer of 2018 for the Bazile Creek area in northeastern Nebraska. One additional plan has been accepted and six are in various states of development.

The 2018 Farm Bill dedicated 10% of total funds available for conservation programs (with the exception of Conservation Reserve Funds) each year, to be used for source water protection. NDEE is working with NRCS to develop the priority areas in Nebraska where funds will be focused. This effort is meant to address excessive nutrients and other impairments of drinking water. For Nebraska, this effort will primarily focus on groundwater as it is the predominant source for drinking water in the state. The highest priority areas include community public water systems WHP areas and phase 2, 3, and 4 groundwater management areas that include WHP areas. Best management practices incentive payments will go to the NRCS - EQIP eligible owner/operators of agricultural land who install conservation practices relating to water quality and quantity.

NRDs each define their own groundwater management areas separately based on water quality and quantity. Since they vary between NRDs, there is not a state-wide definition for them. NDEE works primarily with NRDs on groundwater quality issues and in general, a Phase I area covers the entire NRD district. In specific areas within an NRD where nitrate reaches a determined thresholds, they may move into Phase II, III or IV areas. Some NRDs only define areas as I - III, while others go from I - IV. Each NRD determines the 'trigger' (or contaminant level) that would move a Phase area into the next level. Each Phase level has requirements for landowners/producers to follow. Moving from a Phase I to a Phase II level often means that they need to complete an educational requirement

such as nutrient management or fertilizer application training. Phase II-IV may also require that certain BMPs may be required such as split application of fertilizer, cover crops, or not applying fertilizer in the fall for example.

The importance of this change in the farm bill cannot be understated. Many Nebraska communities don't have the staff, time, or money to enact Drinking Water Protection Management Plans, and the priority in funding from NRCS may ensure that all community public water systems have on-the-ground practices that work to reduce nitrates in source water protection areas.

Water Well Standards and Contractors' Licensing Program

In July 2018, the Water Well Standards program was brought to the NDEE through a Memorandum of Agreement with the Nebraska Department of Health and Human Services. Program personnel include three inspectors and one administrative assistant. This program is tasked with inspecting all domestic wells and 25% of all other wells drilled in the previous calendar year. This year was an exception to the rule as the program was short one inspector and there were no inspections for three months due to COVID-19. That being said, the two remaining inspectors completed almost 900 inspections throughout the entire state.

The program is also responsible for licensing and regulating over 800 licensed water well professionals which includes administering examinations on a quarterly basis. In addition, the program answers various questions and complaints from both the public and the regulated community.

Overseeing the program is the Water Well Standards and Contractors Licensing Board. The board is comprised of five government representatives (including NDEE, DHHS, Nebraska Resources Districts and Nebraska Department of Natural Resources) and five non-government entities (including pump installation contractors, irrigation water well contractors and equipment suppliers/manufacturers). Board members meet quarterly to make decisions related to issues such as application fees, rules and regulations, continuing education units and disciplinary action.



Water Quality Planning

Surface Water Quality Standards

NDEE develops surface water quality standards which are found in NAC *Title 117 – Nebraska Surface Water Quality Standards*. The state’s waterbodies have been assigned beneficial uses in one of the following categories:

- Public water supply,
- Aquatic life,
- Agriculture,
- Industry,
- Recreation, and
- Aesthetics.



Each beneficial use has water quality criteria for chemical and physical parameters that are developed to be protective of that use. For example, criteria for nitrogen are different for waters assigned to public water supply use than those which have an industrial beneficial use. These criteria form the basis of water quality protection for all surface water quality programs conducted by NDEE. The federal Clean Water Act (CWA) specifies that states review their water quality standards and revise where appropriate once every three years (triennial review).

The federal Clean Water Act (CWA) specifies that states review their water quality standards and revise where appropriate once every three years (triennial review).

Nebraska’s triennial review was last revised in 2019 with the Governor’s signature to Title 117 on June 24, 2019, and approval by EPA on September 5, 2019. The updated standards are available on NDEE’s website. In addition to developing the standards, staff develop and implement procedures for applying the standards to surface water quality programs, such as NPDES permits.

Impaired Waters and Total Maximum Daily Loads (TMDLs)

The Federal CWA, Section 303(d), requires states to prepare a list of impaired surface waters – waters that do not support the assigned beneficial uses as listed in NAC *Title 117 - Nebraska Surface Water Quality Standards*. From this list, states are to prepare TMDLs that include the pollution control goals and strategies necessary to improve the quality of these waters and remove the identified impairments so these waters may meet their assigned beneficial uses.

As in previous years, NDEE has opted to combine the required CWA Section 303(d) list with the Section 305(b) report on the general status of water quality in the state. This combination is referred to as the Integrated Report (IR). The 2018 Integrated Report was approved by EPA in April 2018 and is available on NDEE’s web site.

The following table summarizes NDEE’s work in this area.

IR Category	TMDL/5-alt Name	# of Waterbodies	Pollutant	Status
4a				
	Republican River Basin	26	<i>E. coli</i>	NDEE Developing Draft
5-alt ¹				
	Willow Creek Reservoir	1	TN/TP	Final submission under review by NDEE, EPA Region 7

IR Category	TMDL/5-alt Name	# of Waterbodies	Pollutant	Status
	Nemaha River Basin WMP	7	<i>E. coli</i>	Final submission under review by NDEE, EPA Region 7
	White River Basin WMP	5	<i>E. coli</i>	Final submission under review by NDEE, EPA Region 7
	Lewis and Clark NRD WMP	7	<i>E. coli</i>	Final submission under review by NDEE, EPA Region 7
	Lower Platte South NRD WMP	10	<i>E. coli</i>	Final submission under review by NDEE, EPA Region 7

¹In 2015, NDEQ (now NDEE) and EPA created the “5-alt” alternative to developing TMDLs for impaired waterbodies in order to address missing TMDLs in areas where project sponsors have targeted restoration work. As of 2020, EPA and NDEE are revising the submission process for 5-alt plans. Completion of the listed 5-alt is pending the conclusion of these revisions.

Nonpoint Source Pollution Management Program

The goal of the Nebraska Nonpoint Source Pollution Management Program is to protect and improve water quality impacted by nonpoint source pollution through an integrated statewide effort. The program is of particular significance because nonpoint source pollution is the most prevalent, widespread cause of water quality degradation in Nebraska and is associated with runoff and percolation from agricultural and urban areas. The program is largely funded by the Environmental Protection Agency (EPA) through Section 319 of the federal CWA and involves key federal, state, and local partners.

State nonpoint source problems and priorities are defined in the Nonpoint Source Management Plan: "Strategic Plan and Guidance for Implementing the Nebraska Nonpoint Source Management Program 2015-2030," available at <http://deq.ne.gov/publica.nsf/pages/WAT119>. The program emphasizes watershed and groundwater management area planning, targeting of 303(d)-listed impaired waters, and community participation in water quality management plan development.

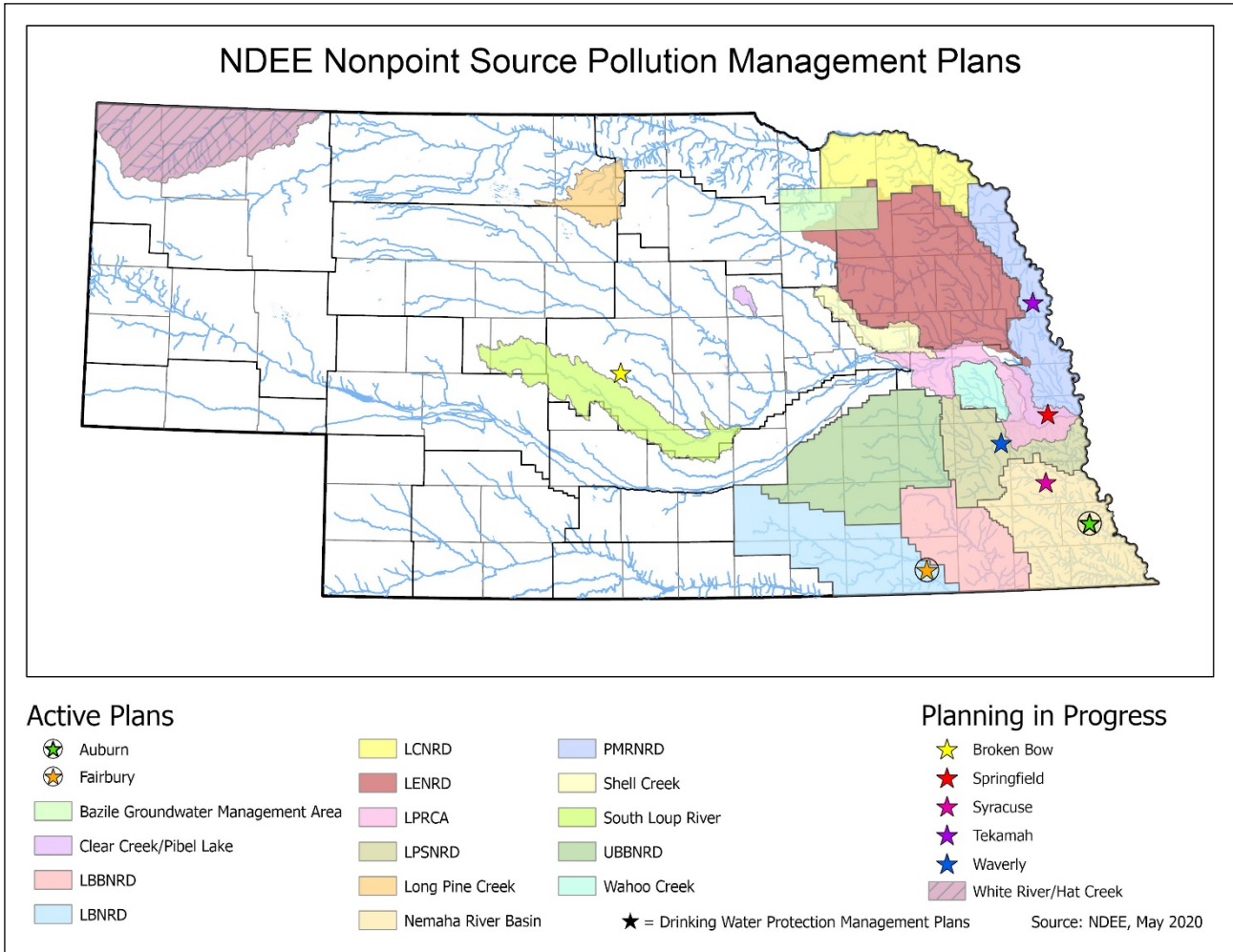


Stormwater infrastructure tour, Omaha

Projects emphasize implementation of 9-Element watershed management plans or Alternative to 9-Element plans in the case of groundwater quality plans.

Included in the major program highlights this year is the acceptance by EPA of three 9-Element watershed management plans: Upper Big Blue NRD Water Quality Management Plan (WQMP), Nemaha WQMP, and Lewis and Clark NRD WQMP. In addition, the NPS program has continued to emphasize groundwater quality planning through development of Drinking Water

Protection Management Plans (DWPMPs) as Alternative to 9-Element plans with the communities of Broken Bow, Fairbury, Springfield, Syracuse, Tekamah, and Waverly. In the past year, both Auburn and Fairbury DWPMPs were accepted by EPA. Once DWPMPs are accepted by EPA, these communities are be eligible to apply for 319 project funds for plan implementation.



Water Quality Data Handling and Storage

NDEE continues adding Nebraska surface water quality information to the EPA’s Water Quality Exchange (WQX) electronic storage system for water quality data. This will make Nebraska surface water quality information available to anyone who has an internet connection. The website for this information is <https://www.epa.gov/waterdata>. During FY2020, NDEE continued to add surface water monitoring results to the WQX database. NDEE has developed a new internal database application which has increased the efficiency of processing surface water monitoring data, resulting in significant time savings.

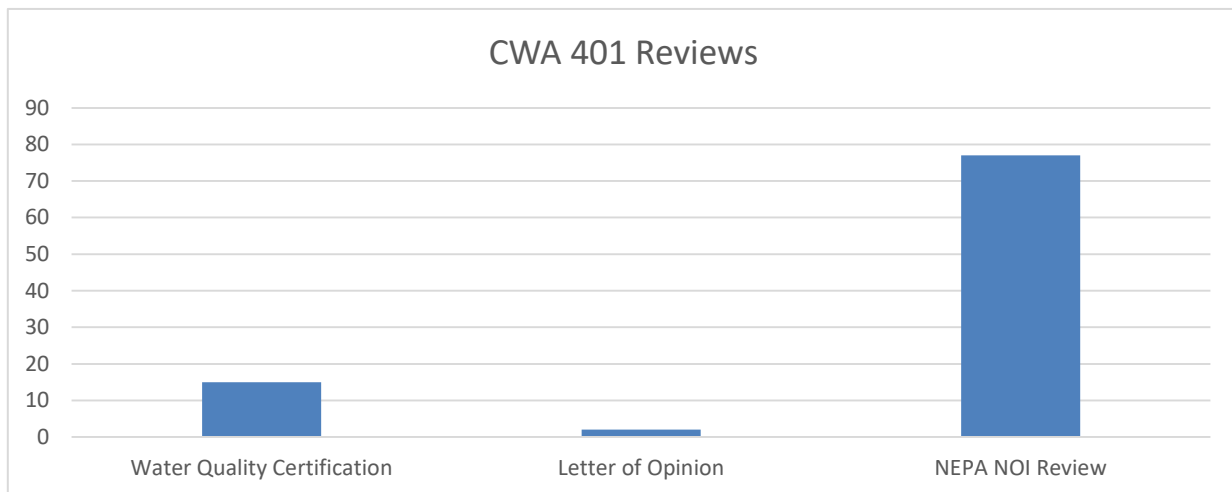
Clean Water Act Section 404 Assumption Review

Dredge and Fill Permits

The Water Division CWA 404 Section was created in 2019 in response to LB302, which allowed the Department to investigate the process and cost to assume Clean Water Act (CWA) 404 permitting authority from the U.S. Army Corps of Engineers for activities in and around waters of the U.S. The section is investigating the assumable workload for all waters of the U.S. outside of CWA Section 10 waters and waters within Tribal lands which will be retained by the Corps. In addition, the 2020 Navigable Waters Rule clarified ephemeral streams, ditches, and isolated wetlands are not waters of the U.S. The Department has conducted a desktop analysis to determine what impact this new rule has on the assumable workload. This information is being utilized to estimate staffing needs and develop sustainable funding scenarios. The Department will submit a separate report summarizing these findings to the legislature. The Department is actively working and meeting bi-monthly with both EPA and the Corps and will make a complete report of findings in the near future.

CWA Section 401 Water Quality Certification

The Water Division CWA 404 Section administers the Water Quality Certification Program in accordance with Section 401 of the CWA. This program evaluates applications for federal permits and licenses that involve a discharge to Waters of the U.S. and determines whether the proposed activity complies with Nebraska Surface Water Quality Standards. If the activity is likely to violate the standards, conditions for complying with the standards will be issued with the certification, or certification will be denied. The U.S. Army Corps of Engineers Section 404 Dredge and Fill Permits and Federal Energy Regulatory Commission licenses are examples of federal regulatory programs that require State Water Quality Certification before federal permits or licenses can be issued. NDEE reviews approximately 20 individual Section 404 permit applications annually.



Agriculture Section

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

Livestock Waste Control Program

Overview

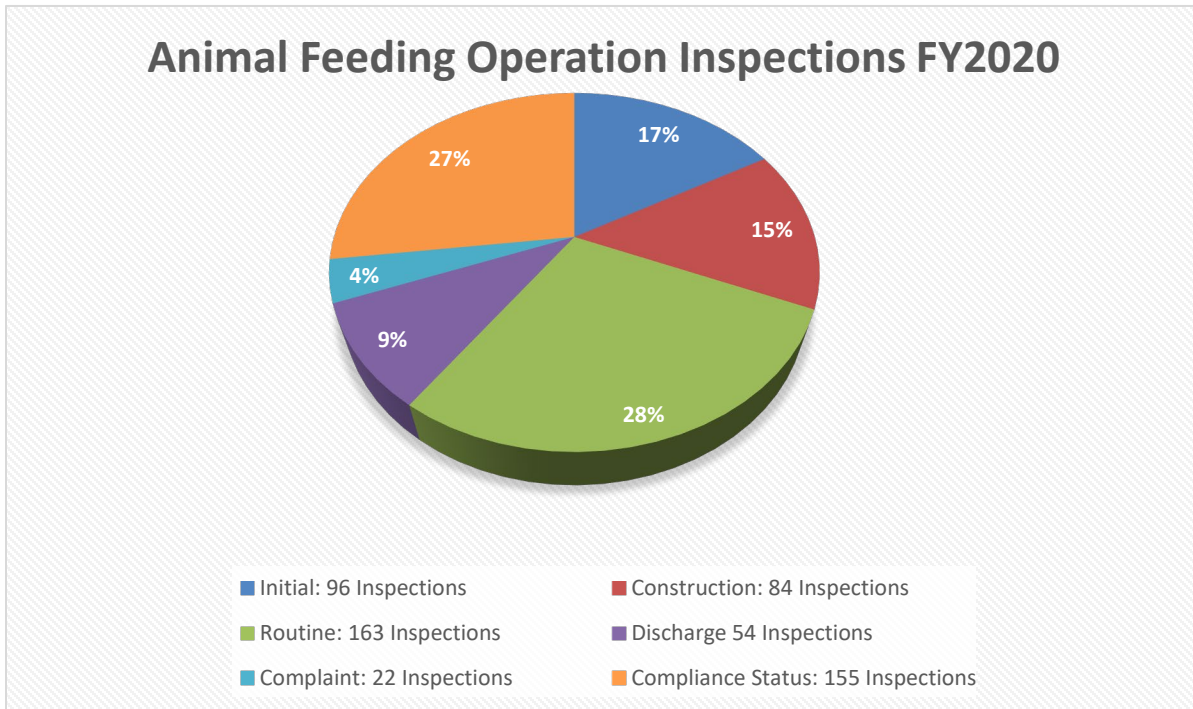
The Livestock Waste Control Program (LWC) is charged with the overall responsibility to protect Nebraska's surface water and groundwater from discharge of livestock waste from any of the thousands of Animal Feeding Operations (AFOs) in Nebraska.

To accomplish this responsibility, the program administers NAC *Title 130 - Livestock Waste Control Regulations*. The LWC Program primarily focuses on the 1,237 active large Concentrated Animal Feeding Operations (CAFOs) required to have permits, but also works with approximately 2,183 Medium AFOs. The LWC Program uses inspections, permitting, and periodic monitoring to fulfill this responsibility. The program also implements the National Pollutant Discharge Elimination System (NPDES) program for CAFOs.



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

Inspections



The LWC Program staff conducted a total of 574 livestock waste control inspections and investigations in FY2020 (including complaint and discharge investigations). The chart above illustrates the breakdown by type of inspection or investigation. A concerted effort was made during the fiscal year to revisit many medium-sized operations to ensure that they were in compliance with Title 130 and the EPA CAFO Rule.

COVID-19 caused an interruption of inspections for about four months of the year. The amount of inspections were 209 fewer than the Department conducted in FY2019. The program was still able to conduct desktop initial and post-construction inspections. This ensured the producers could continue with their expansions with minimal disruption. On-site inspections resumed in SFY2021 where social distancing practices can be maintained. With fewer inspections being conducted, more focus was placed on issuance of NPDES permits.

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

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

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

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

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

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

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

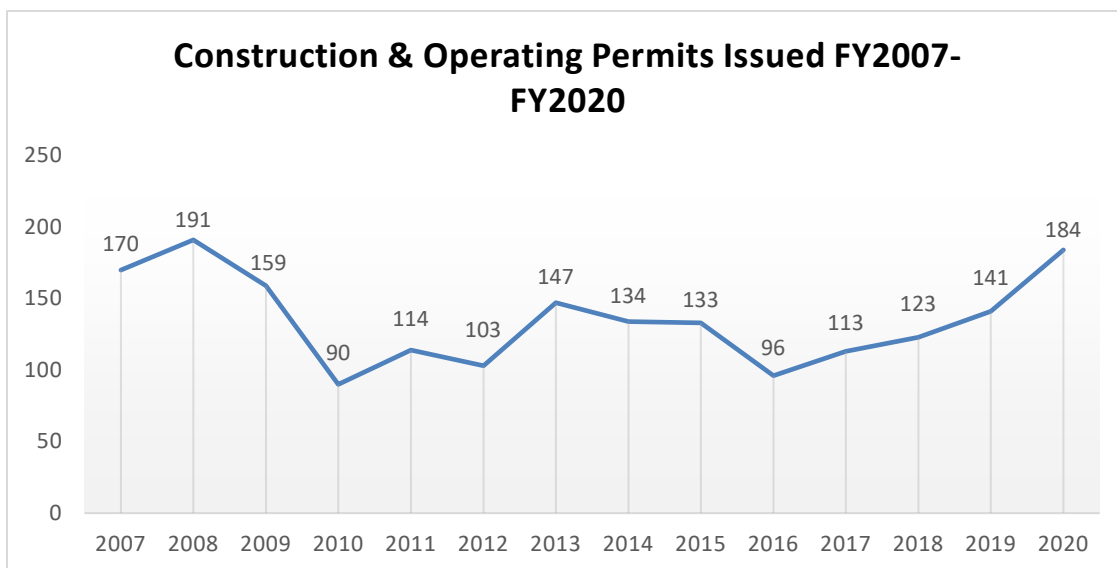
State Permitting

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

The Department received a total of 157 permit applications and issued 184 permits during FY2020, as shown in the table to the right.

Construction and Operating Permits – FY2020		
Type of Application or Permit	Applications Received	Permits Issued
New permits	64	68
Modified permits	52	73
Transfer permits	41	43
TOTAL	157	184

The chart below shows the total number of state permits issued annually for livestock waste control facilities since FY2007. The Department updated some existing Construction Permits, Construction Approvals and Operating Permits to Construction and Operating Permits if the AFOs updated their nutrient management plans (NMP) to current Title 130 standards. The NMP updates were mainly in conjunction with NPDES Permit renewals or transferred permits.



Once a permitted AFO has completed its construction project, the Department conducts a post-construction inspection. If the post-construction inspection shows the construction was completed as approved, the Department notifies the AFO that operation of the new livestock waste control facility is approved. In FY2020, the Department gave approval to 103 AFOs for operation of their new or expanded LWC facilities.

National Pollutant Discharge Elimination System (NPDES) Permit

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

The table below summarizes the number of NPDES applications received and permits issued for livestock waste control facilities in FY2020. More than double the permits were issued in FY2020 than in FY2019.

NPDES PERMITS – FY2020		
Type of NPDES Application/Permit	Applications Received	Permits Issued
GENERAL PERMIT FOR CAFOs CONFINING CATTLE		
New Coverage	6	16
Modified or Transferred	17	20
Reissued	95	118
SUBTOTAL GENERAL PERMIT:	118	154
INDIVIDUAL PERMITS		
New Coverage	1	8
Modified or Transferred	5	4
Reissued	1	12
SUBTOTAL INDIVIDUAL PERMIT:	7	24
NPDES TOTALS:	125	178

Fees

The annual fee is assessed on all permitted Large CAFOs and all CAFOs covered under an NPDES permit. The fee is determined based upon the number of head of livestock for which the operation has a permit. The fees provide 20% of the Department's costs to administer the livestock waste control program, as required by statute. The Department received \$280,257 in annual permit fees. In addition, the Department received \$31,400 in initial inspection fees, \$43,100 in permit application fees, \$20,000 in late payment fees, and \$14,651 in investment income for a total of \$389,408 in fees and revenue.

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

Chemigation Program

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

Since 1987, the NRDs have inspected irrigation systems used for chemigation for functioning safety equipment and issued site permits. Chemigation permits are issued annually, and are reported to the Department on a calendar year basis. The 26,951 chemigation permits issued in 2020 constituted a 3% decrease in permits issued compared to 2019 (27,727 permits).



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

In calendar year 2020, 1,187 applicators have been trained, tested, and certified, bringing the current number of certified chemigation applicators to 5,554. Information about chemigation applicator training dates and certified applicators is available after January 1 of each year at <http://dee.ne.gov/NDEQProg.nsf/%24%24OpenDominoDocument.xsp?documentId=D884FD6EE633A0AA86257CAE0077CC9D&action=openDocument>. Title 195 was updated on April 19, 2020.

Agricultural Chemical Containment Program

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

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

The Department and the Nebraska Department of Agriculture have a cooperative agreement that outlines the procedure for coordinating inspection activities between the two agencies. The agreement enhances the communication between the agencies and provides specific protocols to be followed when investigating Agricultural Chemical Containment complaints. Title 198 was updated on April 25, 2020.

Water Permitting and Certification Programs

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

- **Onsite Wastewater Treatment Facilities Program** – This program administers system design, professional certification, and system registration requirements that affect mostly smaller wastewater treatment or storage systems, such as septic systems, household lagoons, and holding tanks, and anyone doing work on these types of facilities.
- **Wastewater Treatment Facility Operator Certification Program** – This program administers the certification program for wastewater treatment facility operators to ensure proper operation and maintenance of these facilities.
- **Sanitarian Program** – The Sanitation Program inspects the following types of facilities: public swimming pools, recreational camps, and mobile home parks. The Sanitation Program also performs well and septic inspections upon request for property transfers. The DHHS has a Memorandum of Understanding with the Nebraska Department of Agriculture to perform food inspections at the following facilities: schools, college food service (room and board for students), senior centers, and child care centers (upon referral from the DHHS Licensure Unit).
- **Wastewater Engineering Program** – The wastewater engineering program reviews and issues permits for commercial, industrial, and municipal wastewater facilities that are planned for construction. The program also maintains regulations for the operation and maintenance of wastewater facilities and for the proper abandonment of facilities when they are removed from service.
- **Drinking Water Engineering Program** – The drinking water engineering program provides engineering plan review; issuance of construction permits; inspection of newly constructed projects for issuance of approvals for placement into service; and technical assistance and advisory contacts with owners/operators of public water systems, consulting engineers, state, federal and local officials, organizations, and the general public in matters relating to siting, design, construction, maintenance, and operation of public water systems. In addition to public water systems, the program provides similar services for all new and substantially modified public swimming pools and spas.
- **The National Pollutant Discharge Elimination System (NPDES) Program** – This program is responsible for regulating discharges of pollutants to Waters of the State to maintain and protect the water quality of Nebraska's streams, lakes, rivers, and groundwater.
- **The Nebraska Pretreatment Program** – This program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industries.

Onsite Wastewater, Sanitation and Operator Certification Program Accomplishments and Challenges

In 2019, the Section launched the online system registration process, and to date, 174 systems have been registered using this option. Each year the Section processes roughly 1,500 paper registrations and related applicable fees. The new system allows certified professionals to register

systems online and pay via credit card, or print a receipt and pay with a traditional check, which greatly speeds up the registration process and frees up resources for other priorities.

Additionally, program staff attended and presented at the annual Nebraska Onsite Waste Water Association Annual Convention. The annual convention, which is held each year in February in Kearney, is the best opportunity to discuss changes in the industry with certified installers, manufacturers, and other regulators.

Soon after the annual convention, the majority of the Department, including the Onsite Wastewater Section, began working from home due to the COVID-19 pandemic. While traditional inspections were not performed during this time, the Section was able to utilize technology to perform some inspections virtually, and to perform all administrative tasks, such as compliance assistance, administering onsite wastewater certified professional exams, renewing professional certifications, and issuing permits.

Onsite Wastewater Treatment Facilities Program Overview

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

The Private Onsite Wastewater Treatment System Contractors Certification and System Registration Act (the Act) passed in 2003 required that anyone doing work associated with onsite wastewater systems be certified by the State of Nebraska. The Act provided for the registration of all onsite wastewater systems constructed, reconstructed, altered, or modified. The law also provided for certification and system registration fees to support the program. The Act was amended in 2007 to provide for application fees for permits and subdivision approvals as well as waiving fees for government inspectors. A certification by examination is required for professionals to obtain initial certification. Currently, 458 people hold onsite wastewater certificates. Some professionals obtain certification in multiple categories. The categories of certification are: Installer (Master and Journeyman), Pumper (Master and Journeyman), Inspector, and Soil Evaluator. Current certificates expire December 31, 2021, and may be renewed via continuing education requirements or re-examination. Certificates must be renewed every two years.

The registration requirement for onsite wastewater systems provides a statewide inventory of new or modified onsite systems. Since registrations began in 2004, over 25,000 systems have been registered, with 1,643 systems registered in FY2020.

The Section receives a large number of complaints. There were 82 new onsite-related complaints in FY2020 and program staff resolved a total of 57 complaints, which includes both old and new complaints. Typical types of complaints that are investigated include: failed systems that have a surface discharge, and which may pose a threat to public health or the environment, and systems installed by individuals who are not certified by NDEE. In addition, the Section fields approximately 4,000 calls annually seeking compliance assistance.

The regulations set minimum design standards for all onsite wastewater treatment systems and include an "Authorization by Rule" provision which allows for the installation of typical onsite systems by a certified professional and subsequent operation by the owner without a site-specific construction

or operating permit. These standard conforming systems constitute the vast majority of all new and replacement onsite systems.

NAC *Title 124 - Rules And Regulations For The Design, Operation And Maintenance of Onsite Wastewater Treatment Systems* requires Department approval prior to construction of any subdivision with any lot less than three acres where onsite wastewater treatment is proposed, or if design standards cannot be achieved. Common examples are if a system cannot meet setback distances or the 4-foot groundwater separation distance prescribed in the regulation. Department engineers review construction/operating permit applications. In FY2020, the program received 46 applications for construction/operating permits and 16 applications for subdivision review and approval.

Sanitarian Program

The Sanitarian Program staff inspect all public swimming pools/spas located at hotels, apartments, municipalities, and recreational facilities. During inspections staff check water chemistry, safety equipment, personnel training, and mechanical areas. Recreation camps and mobile home parks are inspected to assure conditions are safe, sanitary, and comply with NAC *Title 178 - Environmental Health*. The DHHS has a Memorandum of Understanding with the Nebraska Department of Agriculture to perform food inspections at the following facilities: schools, college food service (room and board for students), senior centers, and child care centers (upon referral from the DHHS Licensure Unit). Lastly, sanitarians conduct evaluations of domestic water supplies and onsite wastewater treatment systems at the request of home owners, purchasers, or mortgage lending institutions. Many lenders require an inspection of the onsite water and wastewater treatment systems for compliance with applicable State of Nebraska regulations prior to granting a loan. During the evaluation, staff visually inspect the water well and the onsite wastewater treatment system and collect water samples to test for bacteria and nitrates.



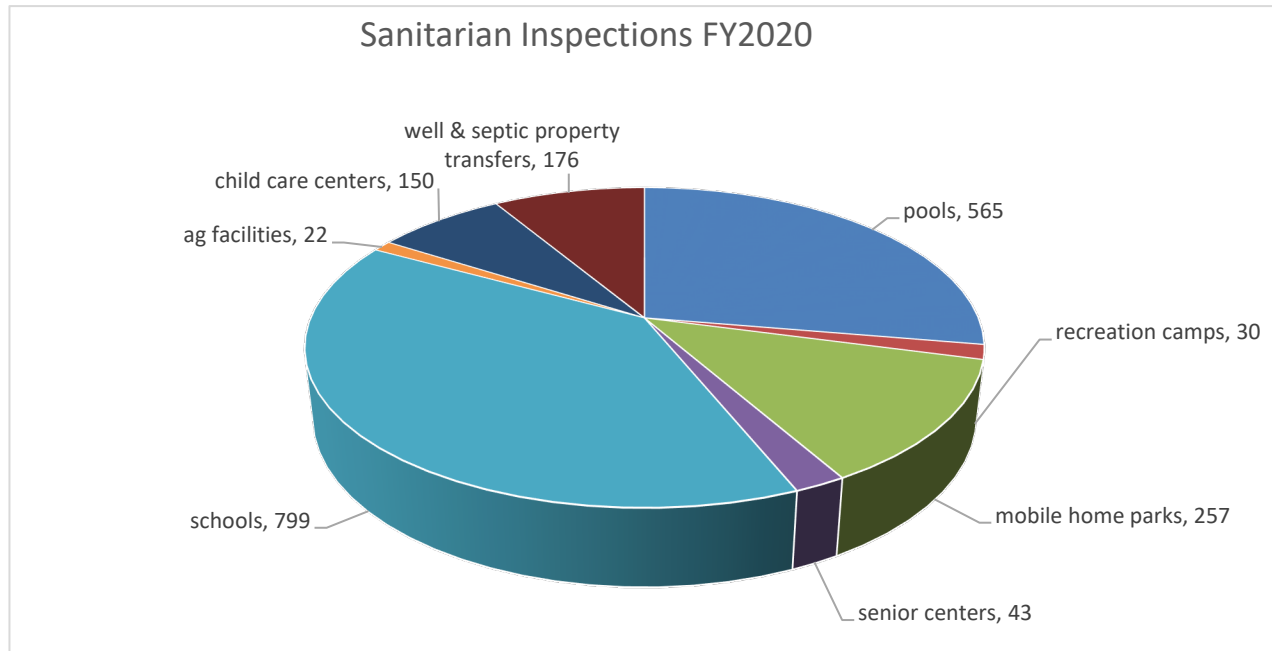
Sign temporarily closing an apartment pool



Ord Community Pool

The DHHS has partnerships with Douglas County Health Department, Lincoln-Lancaster County Health Department, Central District Health Department and the City of Norfolk to perform inspections at public swimming pools in their jurisdictions.

During FY2020, the seven sanitarian program staff completed 1,866 inspections at 1,789 pools, camps, parks, child care and senior centers, and schools. There were an additional 176 well and septic evaluations completed for property transfers. Inspections were down from FY2019 due to the COVID-19 pandemic resulting in many facilities being closed during the season. The chart below shows a breakdown of FY2020 inspections:



Wastewater Treatment Facility Operator Certification Program

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

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

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

Industrial I, Industrial II, Industrial III, and Industrial IV, according to the type of facility and its point rating.

The Wastewater Operator Certification Program currently has 796 operators with municipal/compatible certificates. In addition, there are currently 91 certified operators with industrial certificates.

NDEE also reviews applications and issues operator certification exemptions for towns and other entities that have full-retention non-discharging lagoon wastewater treatment facilities that may not require qualified operators due to very limited maintenance and operational needs. The exemption is for a fixed four-year period and the period under current review will end at the end of 2020. NDEE has contacted approximately 300 facilities potentially eligible for the exemption and, of these, issued four-year operator exemptions to 216 facilities.



This photo shows a Wastewater Treatment Facility for Lincoln.

The Department contracts with the Association of Boards of Certification (ABC) for testing services for the Operator Certification Program. Starting in 2019 ABC issued a new exam series for Class I through V. Since the Department began using this exam series, the pass rate for exams has declined sharply. The Department is evaluating this issue and is working with ABC and our education providers to find the cause of the decline in pass rate. The COVID-19 pandemic caused a disruption in our ability to administer the ABC exams for a few months during FY2020. Beginning in early September 2020, the Department has utilized satellite testing centers across the state where the certification exams will be administered.

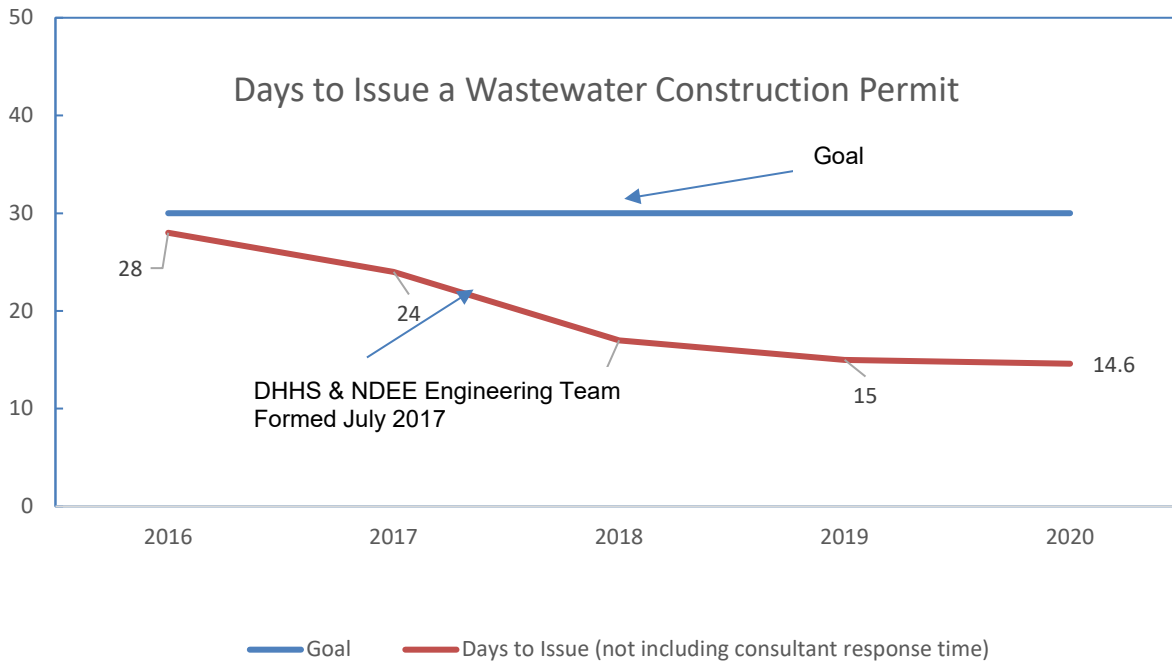
Engineering Programs

In July 2017, NDEE and the Nebraska Department of Health and Human Services (DHHS) announced a Memorandum of Agreement to improve coordination of Safe Drinking Water Act and Clean Water Act programs. Through the agreement, eight DHHS staff in the engineering program were moved to a shared office space with NDEE wastewater engineering staff. The goal is to have the two engineering programs integrate into a team to better serve the communities and citizens of the state. The focus of this relocation of the Drinking Water engineering staff has been to enhance communication and integrate the state's services to communities. Locating staff together better serves Nebraska communities in addressing their water and wastewater infrastructure needs by enhancing state agency coordination. The agencies have focused on cross-training staff between the NDEE and DHHS engineering programs to build resiliency and ensure complete and timely review of applications and coordinated site assistance. As a result of the cross-training, we now have an efficient engineering group that is capable of reviewing wastewater, drinking water, onsite, swimming pool, mobile home park projects, and feedlot projects.

Wastewater Engineering

The engineers in the wastewater division administer Nebraska's construction permit program for wastewater facilities built in the state. Industries, commercial facilities, and municipal utilities are required to submit the plans and specifications for their projects to NDEE for review and approval. The construction documents are reviewed to make sure that the collection systems and treatment facilities will function properly, are able to meet treatment standards as well as meet discharge limits,

and protect the public and the environment from adverse effects. During FY2020, the division received 231 applications for wastewater projects and approved 237 projects. There was one application withdrawn. The cross-training between NDEE and DHHS engineers has improved timeliness of wastewater construction permits as shown in the graph below:



Nebraska’s design standards for wastewater facilities are found in NAC *Title 123 -- Rules and Regulations for the Design, Operation and Maintenance of Wastewater Works*. These standards are updated periodically to keep Nebraska in agreement with regional standards. The state’s design standards are written to encourage the use of proven technologies, but have also allowed the use of innovative designs where they are appropriate. In June 2019, the NDEE proposed updates to Title 123 to the Environmental Quality Council. The majority of the proposed changes were to eliminate duplicative language and provide clarity to the reader. One exemption that was removed did not require a construction permit for pretreatment facilities if the facility discharged to a public owned treatment works in another state. The proposed updates were approved by the Council and later adopted into regulations which became effective on September 4, 2019.

Drinking Water Engineering

The Drinking Water Engineering Section provides engineering plan review; issuance of construction permits; inspection of newly constructed projects for issuance of approvals for placement into service; and technical assistance and advisory contacts with owners/operators of public water systems, consulting engineers, state, federal and local officials, organizations, and the general public in matters relating to siting, design, construction, maintenance, and operation of public water systems. In addition to



Alliance water tower

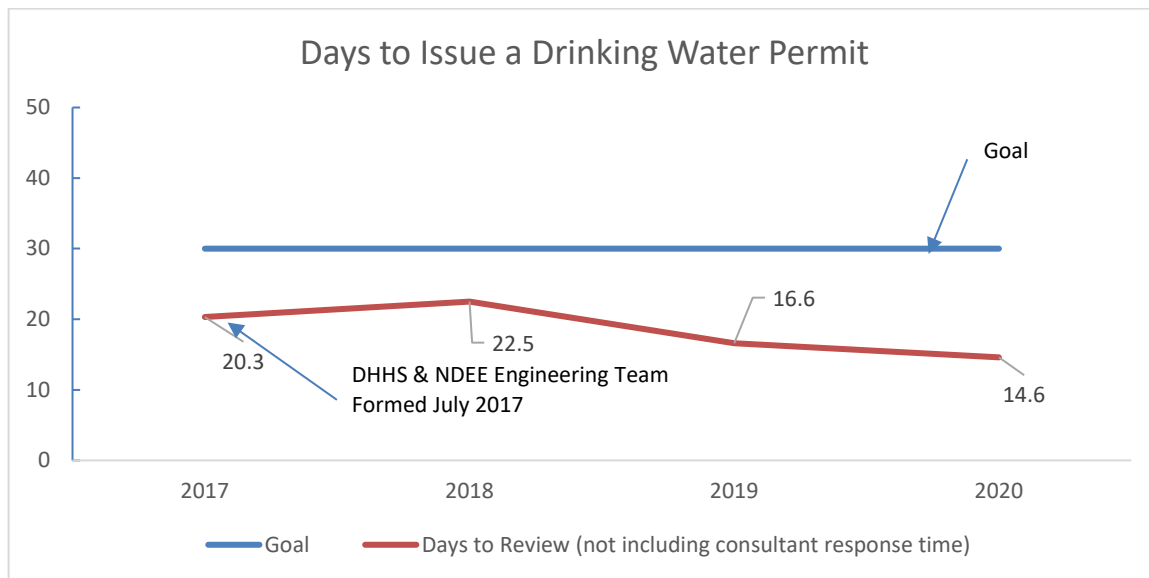
public water systems, the program provides similar services for all new and substantially modified public swimming pools and spas.

On April 4, 2010, NAC Title 179, Chapter 7: *Siting, Design, and Construction of Public Water Systems* became effective. As a result, public water systems can enter into a three-year agreement to construct water distribution main projects without having to submit plans and specifications to DHHS for review and approval. These systems are subject to an annual audit by the Drinking Water Engineering Section as a condition of the agreement. As of June 30, 2020, a total of 23 public water systems had entered into a three-year agreement with the DHHS. NAC Title 178, Chapter 2: *Design Construction, Operation, and Maintenance of Public Swimming Pools* was a combination of Title 178 chapters 2 and 4, effective July 27, 2020.

The following table details the drinking water engineering activities for FY2020:

Drinking Water Engineering Activities	Number
Water Projects Received for Review and Approval	177
Water Projects Inspected	119
Engineering Reports for Water System Improvements Evaluated	14
New Water Well Sites Evaluated	5
Three-Year Agreements for Distribution Main Projects—Annual Audits Completed	13
New/Modified Swimming Pool/Spa Projects Received for Review and Approval	72
Pool/Spa Construction Projects Inspected	48

As with the wastewater engineering program, the drinking water engineering program has experienced improved timeliness as a result of the cross-training between NDEE and DHHS engineers:



National Pollutant Discharge Elimination System (NPDES) and Related Programs

The Water Permits Division administers permitting programs that regulate point source dischargers of water pollutants, including:

- **The National Pollutant Discharge Elimination System (NPDES) Program**, which is responsible for regulating discharges of pollutants to Waters of the State in order to maintain and protect the water quality of Nebraska's streams, lakes, rivers, and groundwater. NPDES programs also include:
 - **Combined Sewer Overflows**, which addresses those municipalities that have combined storm water and wastewater sewer systems. Currently, the City of Omaha is the only municipality operating a combined sewer in the state.
 - **Wastewater Treatment Sludge and Bio-solids Disposal**, which are requirements for treatment and disposal of municipal and industrial wastewater sludges and bio-solids.
 - **Storm Water Permit Program**, which involves: 1) Construction sites of a specific size; 2) the Municipal Separate Storm Sewer System permits for medium and large municipalities; 3) Industrial facilities.

- **The Nebraska Pretreatment Program** functions to protect communities' collection and treatment system assets from damage or overloading by industries.

Activities include issuing permits to minimize, monitor, and limit pollutants in wastewater and storm water discharges, and evaluate compliance with the permits and other applicable regulatory requirements of the programs and provide assistance to the regulated community.

NPDES Permits

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

NDEE is responsible for developing and issuing NPDES permits, and for ensuring that permitted facilities comply with permit requirements. The regulatory basis for this program is through an Environmental Protection Agency (EPA) delegation agreement with the Department and NAC *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 (CSO); and construction, industrial, and municipal storm water discharges. Graphs on the next page show distribution of permits issued to various types of NPDES dischargers. Livestock NPDES permits may be found in the previous Agriculture section.

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). Permits may also require development of Best Management Practice Plans to minimize 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. NDEE 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 NAC 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 NAC Title 118 - Groundwater Quality Standards and Use Classification.

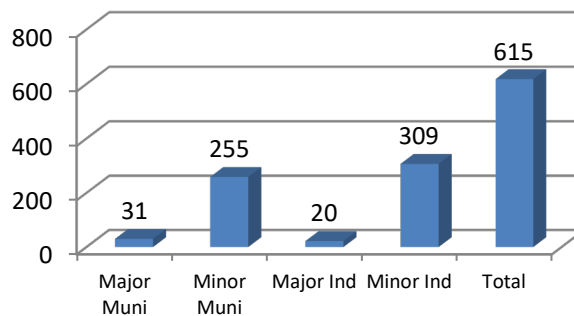
Permits may be developed and issued on an individual site-specific basis, or they may be developed and issued to apply to facilities with similar activities or effluent characteristics. These two types of permits are respectively referred to as individual permits and general permits. To date, the department has developed and issued general permits for the following activity categories: hydrostatic testing, dewatering, land application of concrete grooving/grinding slurry, pesticides applications to, over, and near Waters of the State, gasoline contaminated groundwater remediation projects, petroleum product contaminated groundwater remediation projects, construction site storm water, and industrial site storm water. Municipal Separate Storm Sewer System (MS4) permits have been issued to entities, including metropolitan areas and counties that meet the criteria of the NPDES Storm Water Program.

There are 615 facilities with discharge authorizations under individual permits (municipal, industrial, and pretreatment), and 26 municipal storm water permits (MS4). There are nearly 2,874 active authorized discharges under other general permits. The general permits include 1,630 active authorizations under the construction general storm water permit, 217 dewatering including Omaha, 68 hydrostatic testing, 919 industrial storm water, 20 pesticide, and 20 Treated Ground Water Remediation Discharge sites.

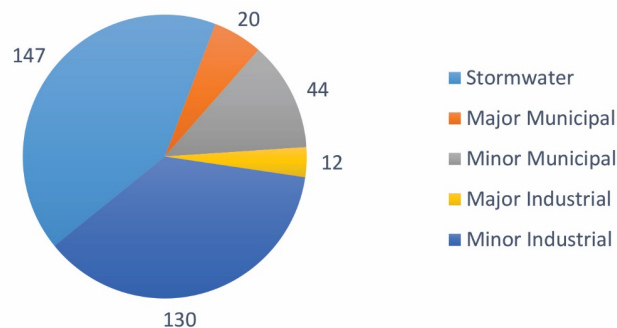
Municipal and Industrial Facilities

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

Major/Minor Municipal and Industrial Facilities



NPDES Inseptions



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 NDEE, typically 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. Inspections are planned and conducted to align with the federal fiscal year.

During on-site inspections, section personnel walk through the facility and review operational procedures and records. Major industrial, major municipal, and pretreatment facilities receive annual on-site inspections. The priority of minor facilities inspections is based on discharge compliance histories, incident reports and complaints. Minor facilities are inspected once every five years at a minimum. Inspectors performed 353 NPDES inspections in Fiscal Year 2020. This is down 97 inspections from FY2019 due to the COVID-19 pandemic. A breakdown of those inspections is provided in the chart above. The minor industrial inspections include 100 pretreatment inspections. During selected effluent monitoring inspections, effluent samples are collected and analyzed by the Department to compare with self-monitoring results. Facilities selected for effluent monitoring inspections are chosen based upon pollution potential, past compliance or incident report histories, complaints, and/or Basin Management Approach priorities.

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

In addition to inspections, NDEE provides permit assistance visits to help permittees better understand the requirements in their permits and help identify problems before they become significant noncompliance. These visits can be requested by the permittee or offered by NDEE. NDEE conducted 20 assistance visits in the 2020 Fiscal Year.

Combined Sewer Overflow Program

The City of Omaha has combined sewers that are subject to storm-induced bypasses of untreated wastewater. Many of Omaha's systems were built prior to the existence of secondary sanitary wastewater disposal standards. When storm or snow melt runoff is occurring, these systems may become hydraulically overloaded and excess water flows bypass the treatment system. Untreated wastewater is discharged into the receiving stream when bypasses occur.

The City and the Department work within the framework of the Clean Water Act, a consent Order initiated in 2007, and the City's Long Term Control Plan (LTCP). The projects included in the LTCP span through 2037 and are estimated to cost over \$2 billion. The goal of the projects is to reduce or eliminate combined sewer overflows and comply with State and Federal regulations. The City has completed 36 of the projects identified in the LTCP. The order was amended in January 2018 to allow for evaluation of existing and future CSO improvements. The evaluation will help determine what efforts have been the most or least effective meeting permit requirements, provide socio-economic value to neighborhoods, improve the bid process, and improve value engineering for projects.

The City of Omaha and NDEE continue to work cooperatively on evaluating and implementing long-term solutions to protect water quality, comply with the CSO requirements of the Clean Water Act, and minimize the financial impacts to the most vulnerable citizens in the community. The key elements of this process are evaluating the success of completed efforts, maximize the effectiveness and value of future efforts, and balance these achievements with other infrastructure needs.

The City provides updates and encourages public involvement with its CSO program. This can be viewed on the City's website at <http://omahacso.com/>.

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 through the land application of biosolids, is an effective management tool.

On Feb. 19, 1993, the EPA published the federal sludge regulations under 40 CFR 503. Under these regulations, an estimated 330 municipal facilities in the state have sludge monitoring requirements. These requirements include metal and nutrient content analyses; improved records for tracking the amount of sludge and metals applied to each disposal site, and cumulative disposal limits. The Department has not sought delegation of this program from the EPA. The program is managed out of the EPA Region 7 office in Lenexa, Kansas. NDEE provides guidance for municipalities, approves land application sites, and provides permit language to assist with biosolids program compliance.

Storm Water Programs

In compliance with federal regulations, the NPDES Storm Water Programs regulate the discharge of pollutants in storm water from certain construction sites, industrial facilities, and municipal storm sewers. Federal Storm Water regulations determine the threshold for coverage of construction sites at one acre or more; or sites that are less than one acre if they are part of a common plan of development or sale. Industrial facilities 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 determine the number of municipalities and urban areas that are subject to the NPDES program for storm water discharges.

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. Since FY2017, an online application process is utilized for the Construction Storm Water General Permit that streamlines the issuance of coverage to applicants. This online process coordinates with the Nebraska Game and Parks Commission and facilitates endangered and threatened species reviews, reducing the time and paperwork needed. The City of Lincoln now shares a construction storm water permitting and records system with the NDEE. This increases communication and efficiency with the state, city, and permitted community.

Urbanized areas are subject to the Municipal Separate Storm Sewer System (MS4) Program. Currently, permitted urbanized areas in Nebraska include the cities of Lincoln and Omaha; Douglas, Sarpy, and Dakota Counties; and the communities of Beatrice, Columbus, Fremont, Grand Island, Hastings, Kearney, Lexington, Norfolk, North Platte and Scottsbluff. The program also requires coverage for the University of Nebraska's campuses in Lincoln and Omaha; the Nebraska Department of Transportation; and Offutt Air Force Base. The NDEE works with individual permittees and organizations, like Nebraska H2O and the Nebraska Floodplain & Stormwater Managers Association, to conduct outreach. The NDEE also evaluates the individual storm water management plans provided by permittees and communicates if these plans meet requirements. This can also include site visits throughout the year to evaluate implementation of the plans.

Nebraska Pretreatment Program Permits

The Nebraska Pretreatment Program functions to protect municipal wastewater collection and treatment systems from damage or overloading by industrial dischargers. The pretreatment regulations are found in NAC 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 NAC 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 the national database, ICIS, to facilitate compliance review activities.

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

State Revolving Loan Fund Programs

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

Clean Water State Revolving Loan Fund

The Nebraska Clean Water State Revolving Loan Fund (CWSRF) program provides below-market financing and small community matching grants to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems to alleviate public health and environmental problems. The loan principal repayments go into new loans, and interest earnings on the fund are used to pay off the state match bonds that are issued annually and to make new loans. An administrative fee is assessed to each loan made through the CWSRF. These funds pay for program operating costs including day-to-day program management activities. Also included are other costs associated with debt issuance, financial management, consulting, and support services necessary to provide a complete program.

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. The EPA awarded the 2019 capitalization grant, in the amount of \$8,109,000, in July 2019. The required match of \$1,640,000 was provided through bonds and cash. In State Fiscal Year (SFY) 2020, the CWSRF funded projects totaling \$68,026,200 in loans and \$1,110,250 in loan forgiveness and grant funds.

Additional Subsidy Awards

Many small municipalities find that the development and construction of needed projects are too costly without the additional grant subsidy provided concurrently with the CWSRF loan. To assist those communities with project costs, the CWSRF provides additional subsidy awards to financially distressed municipalities with a population of 10,000 or less. One available grant is the Project Planning Activities and Report Grant (PPAR). This grant is funded through the Administrative Cash Fund and awarded to small communities to identified wastewater treatment facility project needs. After the project is identified, there is another grant available to communities concurrently with a construction loan called the Small Town Grant (STG). This grant is also funded through the Administration Cash Fund and can provide subsidy of the project cost of up to \$250,000 per project. This grant has provided \$9.98 million in grant funding for 83 projects simultaneous with a CWSRF loan since the start of the program.

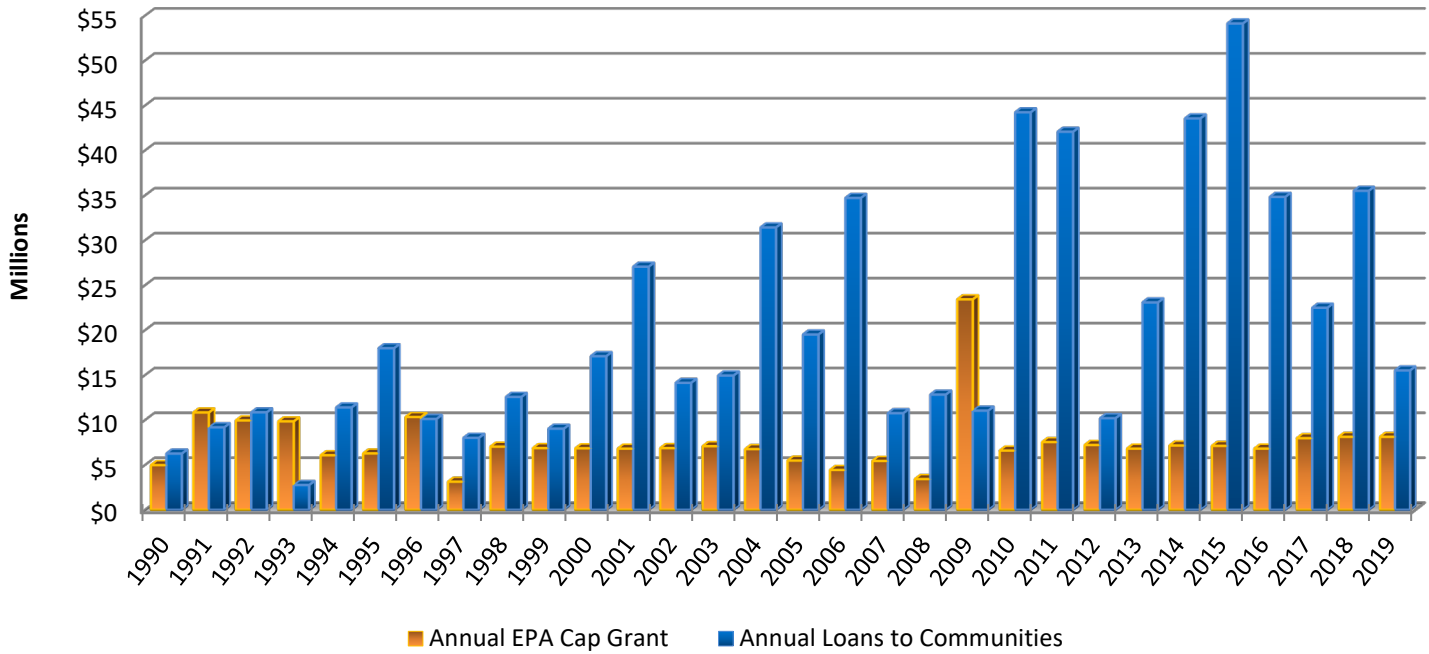
Loan forgiveness is another form of subsidy that is funded through the CWSRF program by reserving up to 10% of the capitalization grant with a maximum award of \$150,000 per project. Similar to the PPAR and STG, borrowers must show financial hardship to be eligible for this grant.

Total CWSRF Assistance Provided

After 30 years of activity, the Fund's Net Assets have reached \$337.6 million. Since its inception, the CWSRF has provided loans for 323 projects with a cumulative loan award amount of \$641.3 million.

The following graph provides the total assistance provided by the Clean Water program per year since inception.

CWSRF Annual Assistance



Drinking Water State Revolving Loan Fund

The Nebraska Drinking Water State Revolving Loan Fund (DWSRF) program provides below-market loans and grants to owners of public water systems. Similar to the CWSRF loan program, loan principal repayments go into new loans, and interest earnings on the Fund are used for revenue bonds purchased for state match, a requirement of the capitalization grant, and to make new loans. There is also a small administration fee charged to each loan of the DWSRF that goes to program management activities.

The DWSRF differs from the CWSRF in that there is an agreement between the NDEE and the Nebraska Department of Health and Human Services, Division of Public Health (NDHHS-DPH), to operate the program and administer the DWSRF funds. In addition, the DWSRF is also unique in that loans may be awarded to privately owned public water supplies. Other program differences include set-asides for program administration, technical assistance, wellhead protection, capacity development, and operator certification. After 23 years of activity, the Fund’s Net Assets have reached \$219.4 million.

DWSRF Set-Aside Funds

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

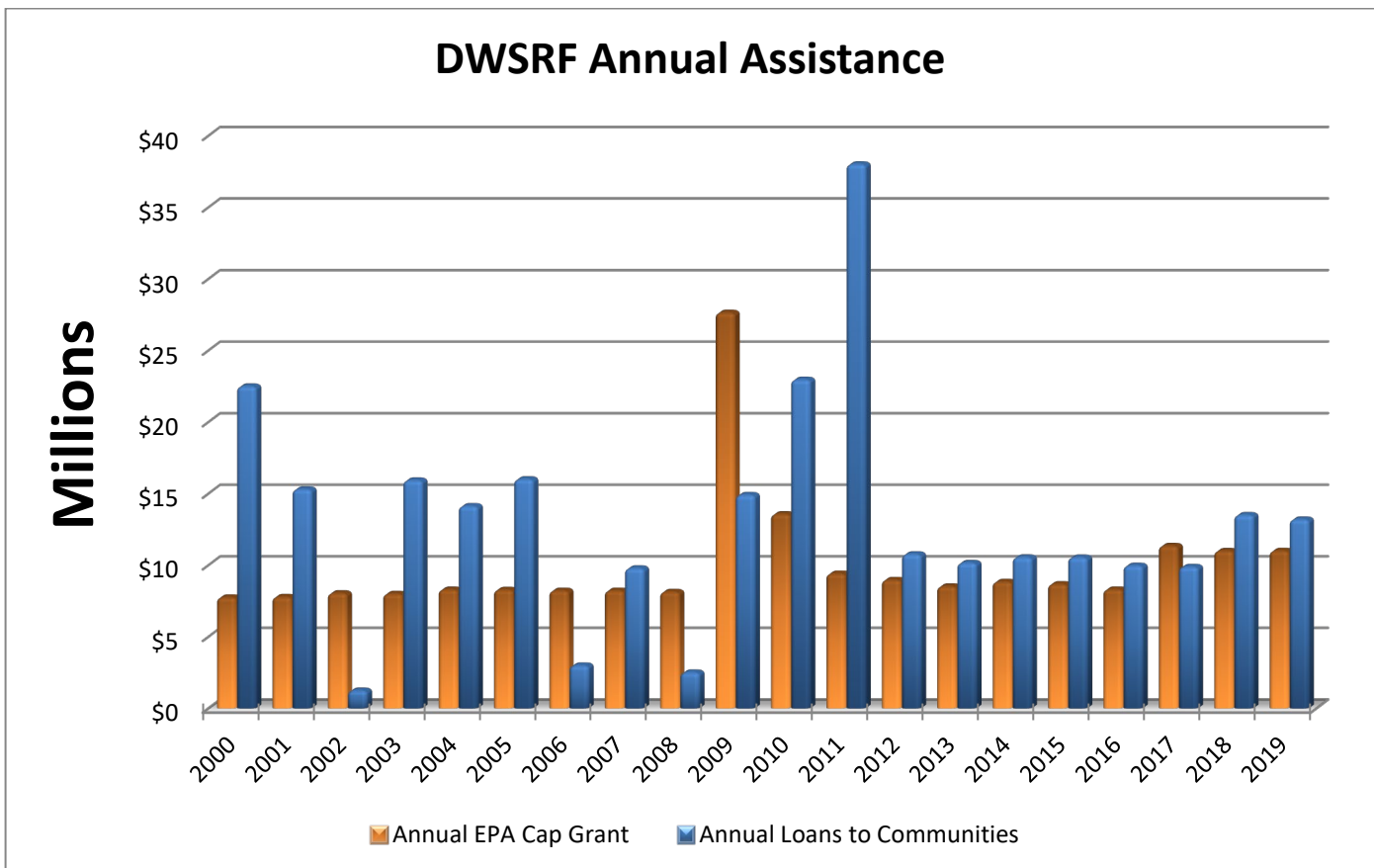
In SFY2020, under the Local Assistance and Other State Programs set-aside (15%), two agreements for preliminary engineering reports totaling \$30,000 were awarded to high priority communities to address public health issues associated with public water supplies. In addition, the communities of Ashland, Creighton, Dodge, Plainview, and West Knox Rural Water District were selected to receive Source Water Grants totaling approximately \$150,000 from the 2019 Capitalization Grant.

The state may use up to a total of 10% of the Capitalization Grant for the PWS Program Administration set-aside. NDHHS-DPH used \$1,234,500 from the Federal Fiscal Year (FFY) 2019 Capitalization Grant to administer Nebraska’s Public Water Supply Program during SFY 2020. That amount included \$134,100 of authority that had been previously reserved from past capitalization grants.

The 2019 DWSRF capitalization grant allocation totaled \$11,004,000. In SFY 2020, the DWSRF entered into 21 binding commitments to communities, including one amendment to already existing loans. These are commitments to provide financial assistance to PWS, with projects totaling \$34,215,931. Of that amount, disadvantaged communities received \$4,674,530 in forgiveness funding. The FFY 2019 capitalization grant required that a minimum of 20% of the grant be reserved for additional subsidization (e.g., principal forgiveness).

In addition, from the FFY 2019 capitalization grant, \$2,009,500 was allocated to the 10% (\$1,234,500), and 15% (\$775,000) set-asides, and the authority reserved for the 2% set-aside. More details on the programs associated with these set-asides can be found in the Drinking Water State Revolving Fund Annual Report for SFY 2020 at http://deq.ne.gov/Publica.nsf/Pubs_DWSRLF.xsp.

The following graph reflects the cumulative loan assistance of DWSRF over the past 20 years.



State Revolving Loan Assistance by Legislative District as of August 2020

District	CWSRF Assistance			DWSRF Assistance			Total SRF Assistance		
	Below Market Interest Loan	CWSRF Grant Assistance	CWSRF Total Assistance	Below Market Interest Loan	DWSRF Grant Assistance	DWSRF Total Assistance	Total Below Market Loan	Total Grant Assistance	Total Assistance
1	\$8,583,858	\$926,436	\$9,510,294	\$13,042,084	\$2,898,203	\$15,940,287	\$21,625,942	\$3,824,639	\$25,450,581
2	\$13,173,808	\$650,919	\$13,824,727	\$9,574,715	\$540,935	\$10,115,650	\$22,748,523	\$1,191,854	\$23,940,377
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9*	\$140,619,110	\$1,908,000	\$142,527,110	\$6,552,655	\$1,272,182	\$7,824,837	\$147,171,765	\$3,180,182	\$150,351,947
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	\$3,874,588	\$120,577	\$3,995,165	\$2,984,156	\$772,916	\$3,757,072	\$6,858,744	\$893,493	\$7,752,237
16	\$15,528,483	\$2,008,079	\$17,536,562	\$17,422,618	\$1,340,896	\$18,763,514	\$32,951,101	\$3,348,975	\$36,300,076
17	\$22,367,736	\$1,523,766	\$23,891,502	\$6,962,528	\$557,664	\$7,520,192	\$29,330,264	\$2,081,430	\$31,411,694
18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19	\$11,663,750	\$189,394	\$11,853,144	\$2,273,161	\$125,000	\$2,398,161	\$13,936,911	\$314,394	\$14,251,305
20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21	\$750,000	\$250,000	\$1,000,000	\$0	\$0	\$0	\$750,000	\$250,000	\$1,000,000
22	\$4,327,139	\$1,086,404	\$5,413,543	\$5,537,187	\$1,614,846	\$7,152,033	\$9,864,326	\$2,701,250	\$12,565,576
23	\$25,826,664	\$833,963	\$26,660,627	\$4,049,050	\$814,955	\$4,864,005	\$29,875,714	\$1,648,918	\$31,524,632
24	\$27,798,199	\$524,400	\$28,322,599	\$15,759,160	\$4,025,420	\$19,784,580	\$43,557,359	\$4,549,820	\$48,107,179
25	\$0	\$0	\$0	\$2,056,127	\$0	\$2,056,127	\$2,056,127	\$0	\$2,056,127
26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	\$0	\$0	\$0	\$14,977,829	\$0	\$14,977,829	\$14,977,829	\$0	\$14,977,829
29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	\$5,274,475	\$334,478	\$5,608,953	\$9,916,128	\$1,905,104	\$11,821,232	\$15,190,603	\$2,239,582	\$17,430,185
31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	\$7,322,713	\$1,502,949	\$8,825,662	\$6,226,189	\$1,468,291	\$7,694,480	\$13,548,902	\$2,971,240	\$16,520,142
33	\$9,693,048	\$75,989	\$9,769,037	\$1,663,361	\$289,293	\$1,952,654	\$11,356,409	\$365,282	\$11,721,691
34	\$13,352,041	\$757,551	\$14,109,592	\$6,109,170	\$1,360,906	\$7,470,076	\$19,461,211	\$2,118,457	\$21,579,668
35	\$37,338,756	\$0	\$37,338,756	\$0	\$0	\$0	\$37,338,756	\$0	\$37,338,756
36	\$13,355,804	\$2,611,798	\$15,967,602	\$6,559,816	\$660,564	\$7,220,380	\$19,915,620	\$3,272,362	\$23,187,982
37	\$29,389,328	\$0	\$29,389,328	\$15,318,375	\$223,869	\$15,542,244	\$44,707,703	\$223,869	\$44,931,572
38	\$9,818,320	\$1,697,932	\$11,516,252	\$2,046,701	\$318,126	\$2,364,827	\$11,865,021	\$2,016,058	\$13,881,079
39	\$7,450,784	\$100,000	\$7,550,784	\$859,653	\$186,578	\$1,046,231	\$8,310,437	\$286,578	\$8,597,015
40	\$8,038,867	\$2,291,297	\$10,330,164	\$8,953,930	\$2,387,352	\$11,341,282	\$16,992,797	\$4,678,649	\$21,671,446
41	\$7,697,064	\$1,213,004	\$8,910,068	\$6,933,602	\$2,191,300	\$9,124,902	\$14,630,666	\$3,404,304	\$18,034,970
42	\$18,064,666	\$40,484	\$18,105,150	\$10,750,175	\$737,046	\$11,487,221	\$28,814,841	\$777,530	\$29,592,371
43	\$23,522,145	\$2,314,344	\$25,836,489	\$7,791,151	\$1,397,958	\$9,189,109	\$31,313,296	\$3,712,302	\$35,025,598
44	\$28,069,565	\$1,886,650	\$29,956,215	\$19,739,097	\$1,694,631	\$21,433,728	\$47,808,662	\$3,581,281	\$51,389,943
45	\$6,985,901	\$0	\$6,985,901	\$0	\$0	\$0	\$6,985,901	\$0	\$6,985,901
46*	\$34,847,644	\$1,250,000	\$36,097,644	\$0	\$0	\$0	\$34,847,644	\$1,250,000	\$36,097,644
47	\$14,392,211	\$2,392,483	\$16,784,694	\$24,399,184	\$3,843,862	\$28,243,046	\$38,791,395	\$6,236,345	\$45,027,740
48	\$14,142,244	\$991,959	\$15,134,203	\$7,688,598	\$2,550,340	\$10,238,938	\$21,830,842	\$3,542,299	\$25,373,141
49	\$12,160,210	\$0	\$12,160,210	\$1,476,413	\$0	\$1,476,413	\$13,636,623	\$0	\$13,636,623

*The data collected is from loan obligations and grants awarded to communities for SRF related projects. Grants include Loan Forgiveness, Small Town Grant (CW only), and Planning Grants.

**For the cities of Omaha and Lincoln, which have multiple districts in the area, District 9 was selected for Omaha projects and District 46 was used for Lincoln area projects

Public Water Systems

Information presented for the rest of this chapter reflects calendar year activities as published in the Nebraska 2019 *Public Water System Annual Report*, issued in June 2020.

Population and Type of System

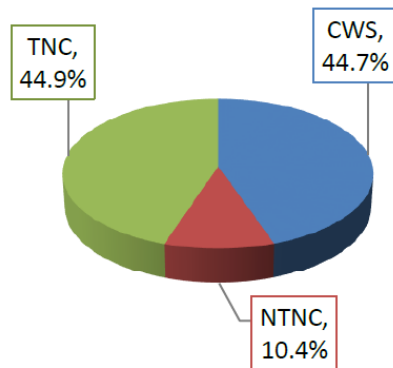
Nebraska Public Water Systems (PWSs) can be broken down into categories based on the size of the population served and/or the type of population served.

Population	CWS	NTNC	TNC	Total Systems	Percentage*
< 101	105	75	511	691	51.6%
101-500	267	46	86	399	29.8%
501-1000	97	8	5	110	8.2%
1001-3300	88	8	0	96	7.2%
3301-10000	28	2	0	30	2.2%
10001-50000	11	0	0	11	0.8%
>50000	3	0	0	3	0.2%
TOTAL	599	139	602	1340	100.00%

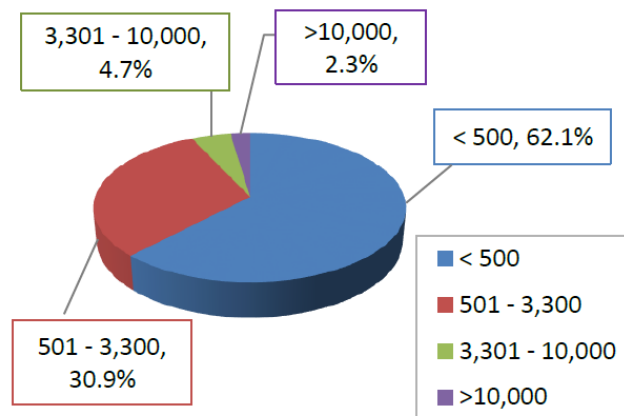
*Based on approximate population

CWS = Community 599 systems
 NTNC = Non-transient, non-community 139 systems
 TNC = Transient, non-community 602 systems

Public Water System Types



Community Public Water Systems by Size of Population

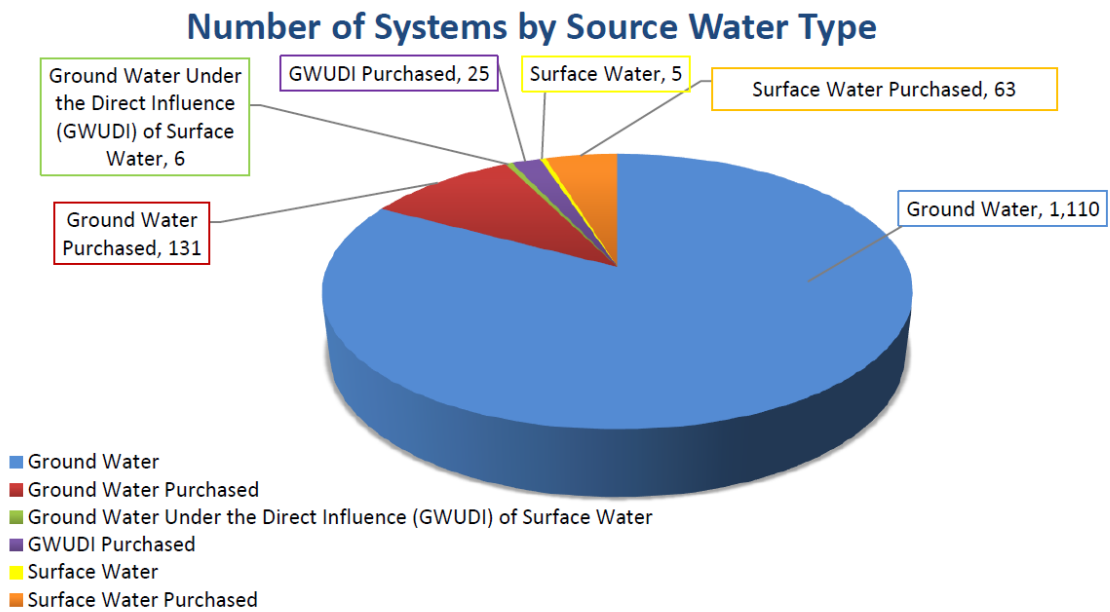


Over 60% of Nebraska’s CWSs serve populations less than 500 people. Water systems with populations below 3,300 are considered to be “small systems” by the EPA. This makes Nebraska a predominantly small system state with 93% of all of the State’s CWSs serving 3,300 or fewer people.

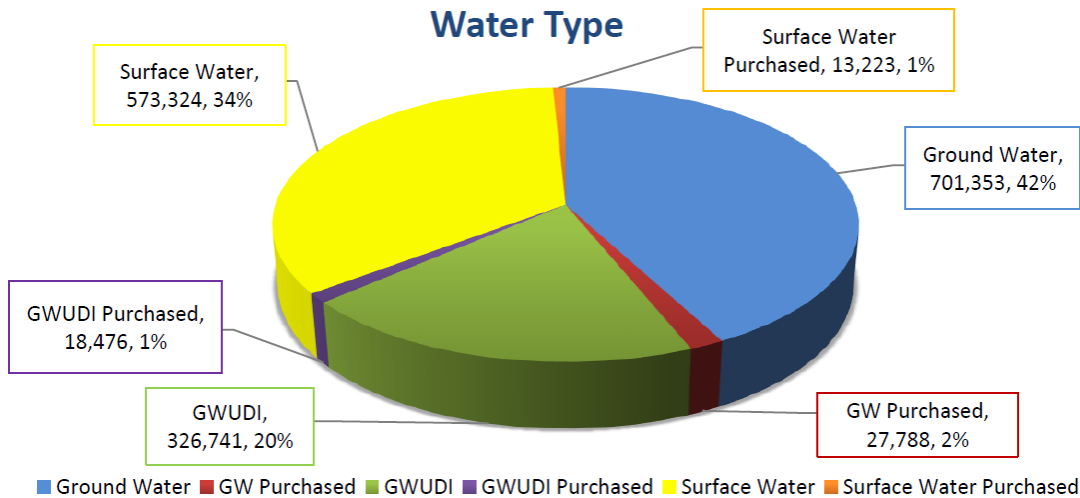
Public Water in Nebraska

The Drinking Water Division administers the State’s regulations governing PWSs, Nebraska Administrative Code *Title 179*, Chapters 2 through 26, promulgated under the State’s SDWA pursuant to and in accordance with the federal Safe Drinking Water Act (SDWA). EPA promulgates rules and sets standards in accordance with the federal SDWA, originally passed in 1974 and later amended in 1986 and 1996.

PWSs provide water to approximately 80% of the people of Nebraska. Private domestic wells provide water for the other 20% of Nebraskans. Most of the water Nebraskans drink is ground water and only five public water systems in the state obtain their drinking water from surface water. Another 64 systems purchase water from these five systems. In addition, six systems utilize ground water under the influence of surface water (GWUDI), and 27 additional systems purchase water from those six systems. The remaining 1,125 systems use ground water, and an additional 147 systems purchase their water from another ground water system.



Public Water System Population Served by Source Water Type



*Percentages rounded to nearest 1%

Drinking Water Division Activities

In July 2017, the Nebraska Department of Health and Human Services (DHHS) and the Nebraska Department of Environmental Quality (now the Nebraska Department of Environment & Energy (NDEE)), entered into a Memorandum of Agreement (MOA), with the purpose of enhancing the protection of public health and the environment through improved customer service, and increased efficiency. The Drinking Water Division staff continue to administer the PWSS program under the supervision of NDEE.

The Drinking Water Division has 27 full time equivalent positions (FTEs). The Monitoring and Compliance Section has seven, the Engineering Section has seven, the Field Services and Training Section has nine, and four FTEs contribute to the administration of the program.

Drinking Water Field Services and Training Section

The Field Services and Training (FS&T) Section encompasses four separate but related areas of responsibility:

- 1) Field services (inspections, operator assistance, etc.),
- 2) Training,
- 3) Capacity development, and
- 4) Water system security.

FS&T staff include a supervisor, eight field representatives, a training coordinator, a capacity development coordinator, and a staff assistant. FS&T staff conduct sanitary surveys, train public water system operators, attend and present information at continuing education programs for water operators, assist public water systems (PWSs) with Level 1 and Level 2 assessments during emergency situations, and help PWSs achieve or maintain adequate technical, financial, and managerial capacity. There are eight field areas with locations in North Platte, Grand Island, Norfolk, Blair, Nelson, Chadron, and Lincoln to provide close contact and timely assistance to Nebraska's PWSs. The Norfolk office serves two field areas.

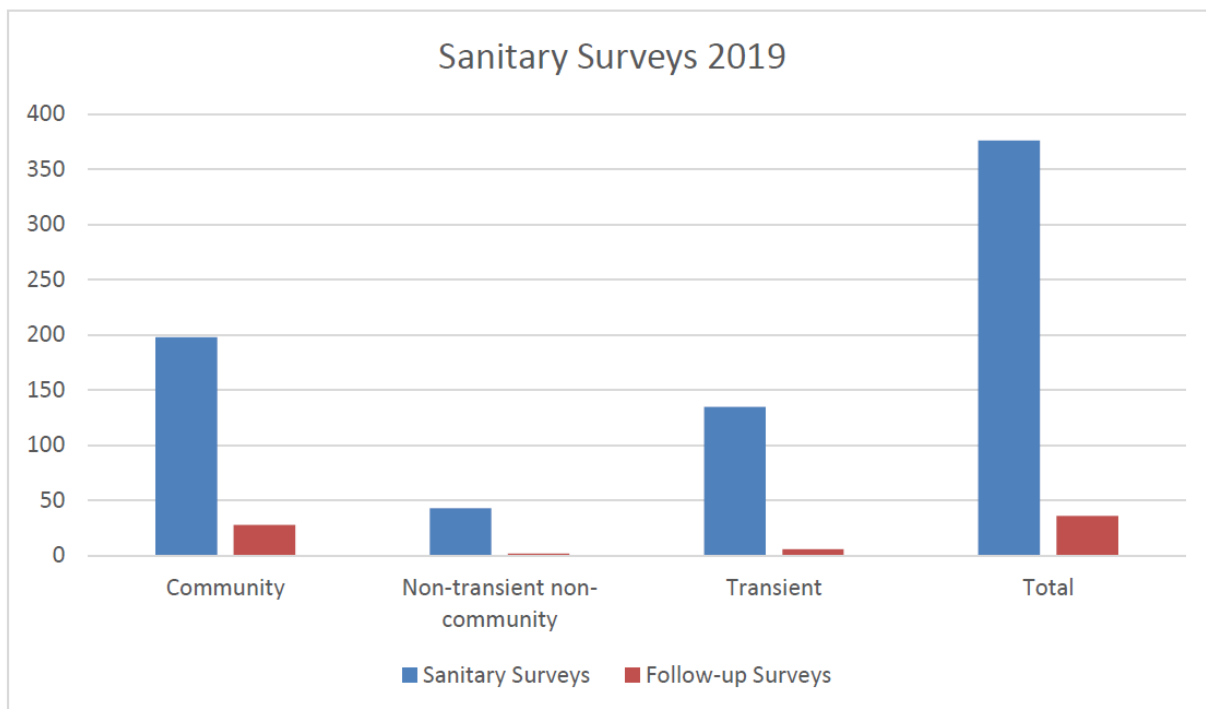
Field Services

Sanitary Surveys

Routine sanitary surveys are conducted once every three years for community water systems (CWS) and non-transient non-community (NTNC) public water systems and once every five years for transient non-community (TNC) PWSs. A sanitary survey helps to ensure that a water system is operating properly by working with their licensed water operator(s) to evaluate records, review their emergency plan and cross-connection control program, and inspect components of the water system.

In 2019, field personnel conducted 376 sanitary surveys (198 community, 43 non-transient non-community, and 135 transient public water systems) and 36 follow-up surveys (28 community, two non-transient non-community, and six transient public water systems). A total of 729 deficiencies were found in 2019. This reflects an overall deficiency rate of 1.9 deficiencies per sanitary survey in 2019. No deficiencies were found in 122 (32%) of the sanitary surveys completed in 2019. The average number of deficiencies found in Nebraska's public water systems remained stable from 2018 to 2019, highlighting the great work of water operators in our state.

Outside of sanitary surveys, field staff conduct site inspections for the location of new public wells and assist engineering services personnel in conducting construction inspections of public water system projects (such as the drilling of wells, the construction of treatment plants, and the erection of water towers). Field services staff provide necessary response to emergency situations associated with natural disasters, water service interruption, and/or contamination of a public water system.



Level 1 & Level 2 Assessments

When public water systems have a confirmed presence of coliform bacteria, the Revised Total Coliform Rule (RTCR) requires that an assessment of the system be conducted. An assessment helps to identify the likely reason for the presence of coliform bacteria in the system. Any identified defects are required to be corrected.

A Level 1 assessment is triggered by the confirmed presence of total coliform bacteria in a public water system. The public water system is responsible for completing a Level 1 assessment. Then field staff are responsible for completing a review of this assessment.

A Level 2 assessment is triggered by either multiple Level 1 assessments within a running 12-month period, or by the confirmed presence of *E. coli* bacteria in the system. A Level 2 assessment is conducted by field staff and provides a much more detailed evaluation of the public water system.

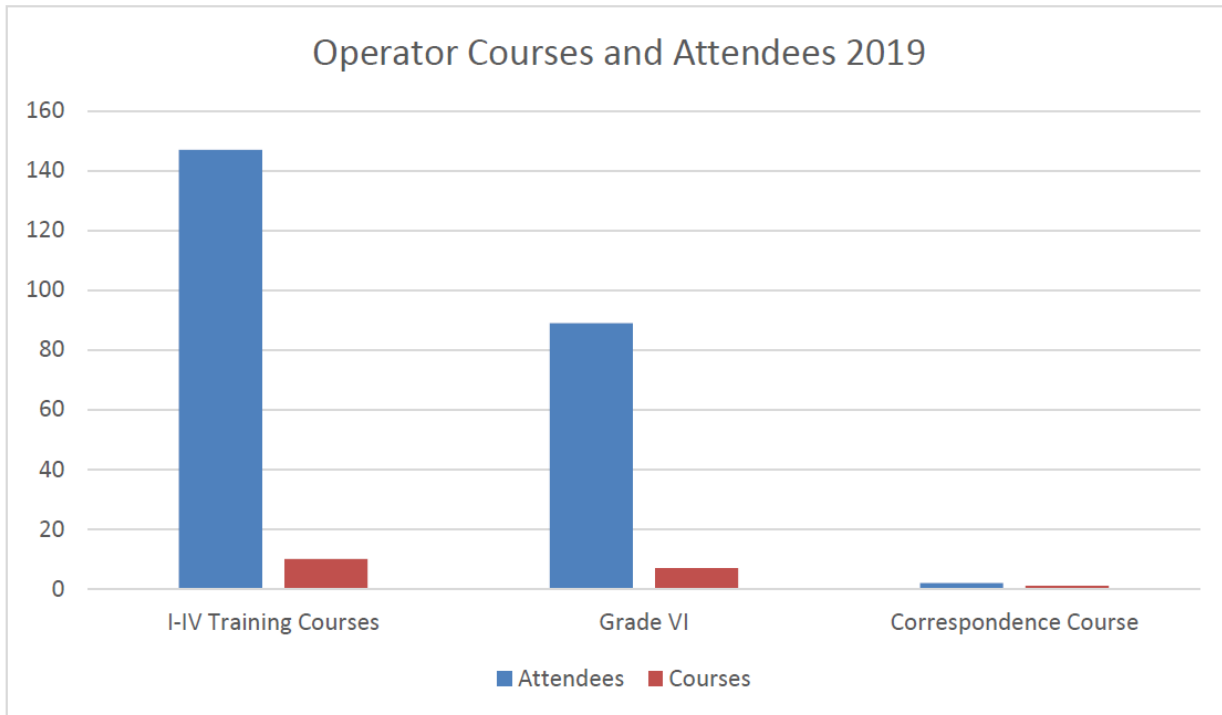
Natural Disasters Impacting PWS

The spring of 2019 brought historic flooding to the region. Forty-four water systems were impacted, but with the hard work of local utility workers and the staff of the Drinking Water Division, 92% of those systems have returned to normal operations. There were 22 community water systems that were damaged and 16 of those have made all repairs. Two community water systems were inactivated due to the condemnation of homes. There were also 22 non-community water systems that were damaged. Nineteen of those have been repaired and have returned to normal operation. Three non-community systems were inactivated and have not reopened.

The Department partnered with EPA to help private homeowners get analysis kits for coliform and *E. coli*. Several drop-off sites were set up in areas that were the most impacted and the most accessible to the largest populations. Citizens could come to one of those sites, receive a sample kit, collect a drinking water sample from their residence, and return it to the drop-off site for transportation back to the State of Nebraska Public Health Laboratory for analysis. There were no costs to the citizens for the tests conducted. Having a reliable drinking water source is critical to help meet the goals of public health, and while the Drinking Water Division only regulates public water systems, the Division felt it was necessary to work with private well owners to help them determine if the water from their wells were safe for consumption.

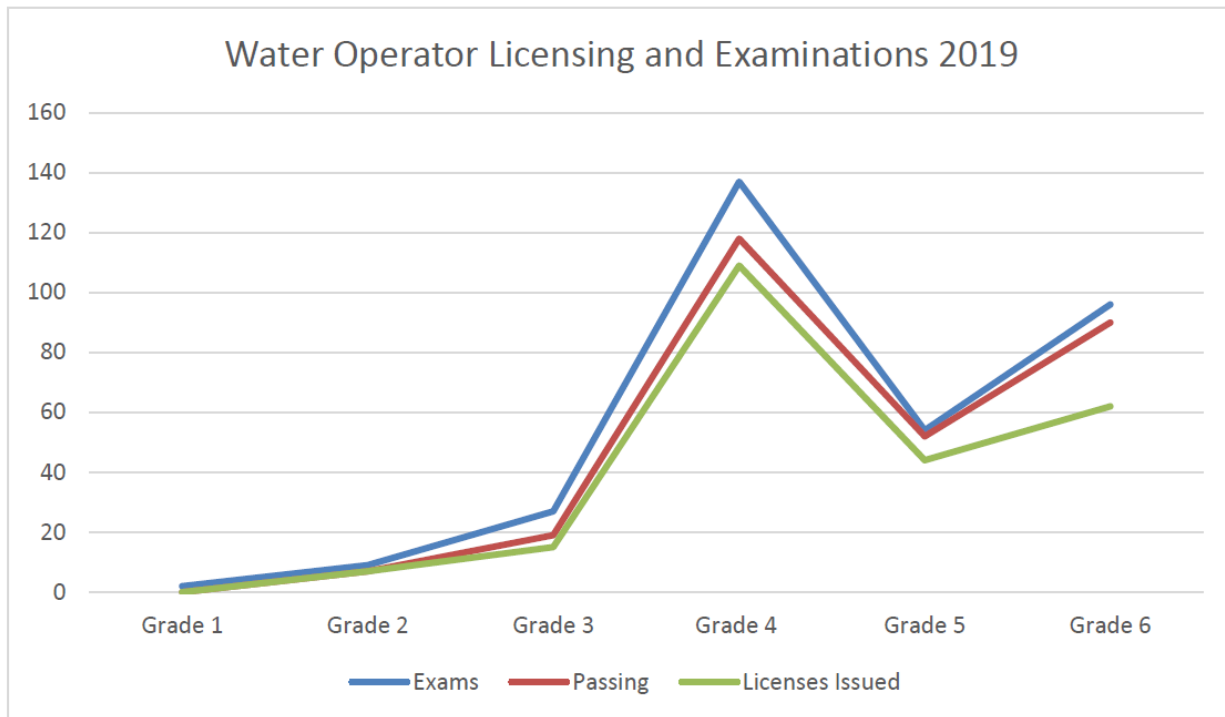
Training

In 2019, FS&T program personnel conducted 10 water operator training courses, Grades I through IV, with a total of 147 attendees. An additional two individuals completed the correspondence course that is also offered to prepare for the Grade IV licensure examination. For Grade VI licensure (backflow preventer testing and repair), seven courses were offered with a total of 89 attendees. For Grade V operators (transient systems only), there are no classroom courses. Training is obtained through a self-study process. Water operators are licensed only after successfully passing an exam. Examinations are offered following each training course and can also be scheduled individually.



The following table breaks down the number of initial licenses issued and examinations conducted at each grade level during 2019.

Grade	Examinations	Passing	Number of Licenses Issued
I	2	0	0
II	9	7	7
III	27	19	15
IV	137	118	109
V	54	52	44
VI	96	90	62



Water Operator Licensing and Examinations 2019

The Drinking Water Division and other training providers offered continuing education opportunities for water operators in 2019. Coordinated by the program, a group informally known as the Water Operator Training Coalition met to identify training needs and to assist with scheduling training opportunities. Members include the Nebraska Rural Water Association, the League of Nebraska Municipalities, the Midwest Assistance Program, Central Community College, and the Nebraska Section of the American Water Works Association. In 2019, as in past years, the Coalition produced a calendar identifying dates and locations of continuing education opportunities for distribution to licensed water operators.

A total of 133 workshops/seminars/conferences were offered in Nebraska in 2019 for water operator continuing education. Of these, 53 focused primarily on backflow prevention continuing education for Grade VI operators.

Capacity Development

Capacity development is a proactive approach for water systems to acquire and maintain adequate technical, managerial, and financial capabilities, enabling them to provide safe drinking water to Nebraskans. The Capacity Development Coordinator oversees the program’s activities to bolster water systems’ capacity.

Additional support is provided by the 2% Team, which consist of the same members as the Water Operator Training Coalition. The name comes from the 2% set-aside from the Drinking Water State Revolving Fund (DWSRF).

DWSRF 2% Set-Aside Funds

Funds from the 2% Set-Aside of the DWSRF are used to provide assistance to public water systems to develop and maintain technical, managerial, and financial capacity. DHHS works with contractors to provide on-site technical assistance, capacity assessment, and board/council trainings.

On-Site Assistance: The Department, along with the 2% Team, prioritize water systems in need of assistance. Technical assistance providers then work with water systems and assist with applications for funding, capacity development training, and manuals and provide mentorship. Technical assistance providers made 319 in-person or phone contact visits with systems in 2019.

Capacity Assessment: Assessments of a system's managerial and financial capacity are conducted at water systems that receive loans through the DWSRF. An assessment is completed before the funded project begins, and again after it is complete, to determine the impact of the project on the system's capacity.

Board/Council Training: Information sessions are held to advise board/council members about the legal and fiduciary responsibilities they have as owners of a public water system, and their role in maintaining an adequate, safe supply of water for their customers. A total of 72 board/council members, representing 15 community water systems, attended sessions in 2019.

Education and Outreach

The Capacity Development Coordinator worked with the Water Operator Training Coalition partners to provide capacity development training for water operators with a focus on their role in developing and maintaining adequate capacity for their water systems. Included in this focus was emphasis on the importance of maintaining an up-to-date emergency response plan and training all individuals who have a role in the plan. The Capacity Development Coordinator provided this training at 10 conferences and workshops in 2019.

Drinking Water Engineering Section

The Nebraska Safe Drinking Water Act, and regulations adopted thereunder, require that plans and specifications for all major construction related to public water systems be prepared by a registered professional engineer and be approved by the Department before construction begins. The law defines major construction as structural changes that affect the source of the water supply, treatment processes, or transmission of water to service areas, but it does not include the extension of service mains within an established service area.

Plan Reviews and Inspections

The Drinking Water Engineering Section provides engineering plan reviews; issues construction permits; inspects newly constructed projects for issuance of approvals for placement into service; and technical assistance and advice to owners/operators of PWSs, consulting engineers, state, federal and local officials, organizations, and the general public in matters relating to siting, design, construction, maintenance, and operation of PWSs.

Water system plan review was incorporated into state law to increase assurance that water source development, treatment, storage, and distribution facilities would be constructed or expanded in a manner contributing to the ability of the system to deliver safe drinking water. Emphasis is placed on encouraging long-term benefits from capital investment as opposed to temporary actions designed to eliminate an emergency situation.

In 2019, DHHS received 172 sets of plans and specifications for the construction of water projects for review and approval. In addition, engineering staff conducted 129 inspections constructed water projects.

Annual Audits

On April 4, 2010, state regulations – NAC *Title 179, Chapter 7: Siting, Design and Construction of Public Water Systems* -- became effective. As a result, public water systems can enter into a three-

year agreement to construct water distribution main projects without having to submit plans and specifications to DHHS for review and approval. These systems are subject to an annual audit by the Drinking Water Engineering Section as a condition of the agreement. In 2019, 13 annual audits were completed and as of December 31, 2019, a total of 23 public water systems have entered into three-year agreements with the DHHS.

Drinking Water State Revolving Fund

The engineering staff also participates in the common pre-application review processes for federal and state agencies' loans; grant programs for water and wastewater projects; and the Drinking Water State Revolving Fund (DWSRF) program activities. In late 2019, a Kaizen process was completed to assess the performance of the DWSRF program with the goal of improving and streamlining processes.

The annual DWSRF infrastructure needs survey was sent out to all public water systems in 2018. The surveys identified 378 eligible projects with just over \$1 billion in infrastructure needs. A ranking system developed by DHHS was used to prioritize and establish the funding order for infrastructure projects that could be funded by the DWSRF. The DWSRF provided 14 loans in 2019 for a total of \$20,326,631, with \$3,038,205 of that provided in forgiveness assistance.

Each year the Clean Water State Revolving Fund (CWSRF) and DWSRF publish an Intended Use Plan (IUP), which explains how the SRF programs will use capitalization grants received annually from the federal government, annual state matching funds, and current program funds to meet Nebraska's communities' needs and funding requirements for the State Fiscal Year (SFY), July 1 to June 30. IUPs also include a priority funding list for CWSRF and DWSRF projects that lists and prioritizes projects that are submitted to the program by the communities. Every year, IUPs undergo a public hearing and comment period that are presented to the Environmental Quality Council (EQC) for review and approval.

Other Engineering Activities

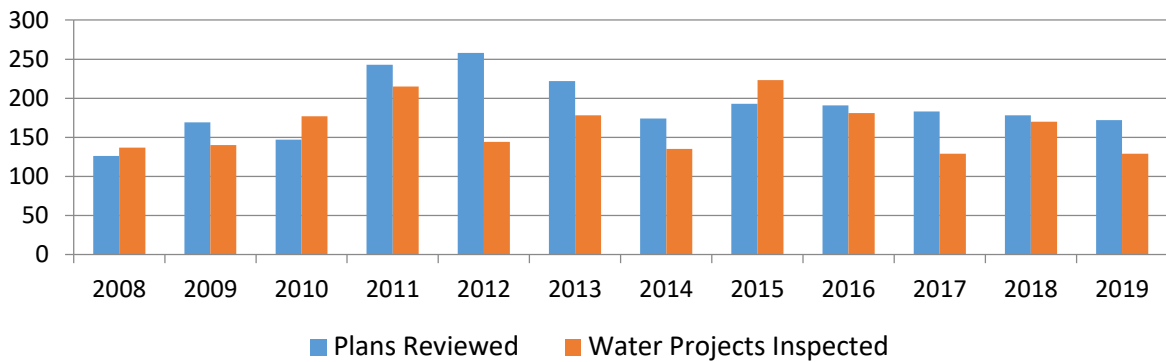
The Drinking Water Engineering Section staff also reviews and evaluates justifications provided by professional engineers for any new well siting that does not meet the setback distances identified in NAC *Title 179, Chapter 7*. In 2019, a total of five new well site justifications were reviewed and approved. In addition, the engineering staff worked with NDEE and city officials to evaluate encroachment issues that may be of concern to existing public drinking water wells. Six encroachment issues were evaluated and resolved.



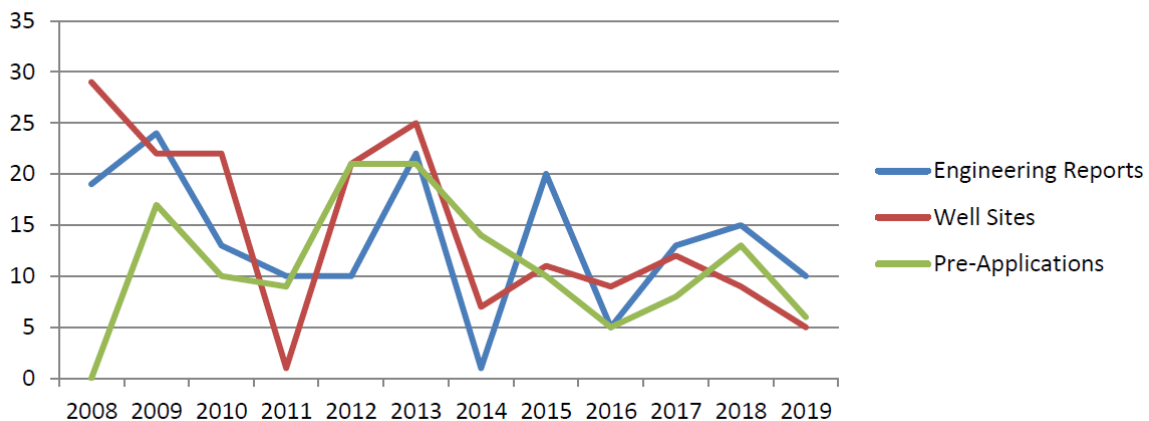
Summary of the Drinking Water Engineering Section Activities
January 1, 2019 to December 31, 2019

Activities	Number
Water Projects Received for Review and Approval	172
Water Projects Inspected	129
Engineering Reports for Water System Improvements Evaluated	10
New Water Well Sites Evaluated	5
Common Pre-Applications for Water/Wastewater Projects for Federal and State Financial Assistance Reviewed	6
Operation and Maintenance Manuals for Drinking Water State Revolving Loan Funded Projects Reviewed	2
Three-Year Agreements for Distribution Main Projects—Annual Audits Completed	13
Encroachment Issues	6

**Engineering Plans Reviewed/
Water Projects Inspected**



Engineering Evaluations



Monitoring and Compliance Section

The Monitoring and Compliance (M&C) Section of the Drinking Water Division establishes monitoring schedules and reviews analytical results for contaminants in drinking water. In this review of analytical results, M&C personnel determine compliance with Maximum Contaminate Levels (MCLs) and issue appropriate enforcement actions, when necessary, to help a PWS return to compliance.

Safe Drinking Water Information System

The Safe Drinking Water Information System (SDWIS) is a database developed by EPA for states to report water quality data test results, violations, compliance assistance, enforcement, compliance schedules, water operator licensure, and PWS operating permits. SDWIS receives electronic data from the State of Nebraska Environmental Health Laboratory and four contract laboratories (Midwest Lab, Hall County, American Ag, and Enviro Services) that perform water analyses for DHHS.

The Drinking Water Division is preparing for transition to cloud-based software called SDWIS PRIME. This transition includes staff training, implementing routine quality assurance and quality control measures, and implementing standard data entry and reporting methods.

Monitoring and MCL Violations and Assessments

A public water system is required to monitor for the presence of 83 different contaminants. If a contaminant is present in the water, the system must verify that it does not exceed the maximum contaminant level (MCL).

In 2019, only nine of 83 contaminants for which community public water systems monitor were found in quantities above the MCL. That means 74 contaminants for which monitoring was conducted were not found above the MCL in **any** community water system in Nebraska.

Monitoring & Compliance enforces nine different federal monitoring rules. Each rule contains a group of similar contaminants. Below is a list of the rules:

1. Revised Total Coliform Rule
2. Disinfections Byproducts
3. Groundwater
4. Lead & Copper
5. Inorganic Chemicals
6. Radionuclides
7. Synthetic Organic Chemicals
8. Surface Water Treatment
9. Volatile Organic Chemicals

A major monitoring violation occurs when a system fails to collect any samples during a compliance period. Significant monitoring violations are defined as any major monitoring violation that has occurred during a specified reporting period, which differs for each contaminant.

There were a total of 265 violations from 175 public water systems in 2019 for exceeding an MCL or failing to properly monitor. More detailed information on each of the monitoring rules follow the summary table on the following pages.

Revised Total Coliform Rule (RTCR)

The objective of the Revised Total Coliform Rule (RTCR) is to reduce potential pathways of entry for fecal contamination into distribution systems. The rule established an MCL for *E. coli*, a type of pathogenic coliform bacteria that can be associated with fecal contamination. All public water systems are required to monitor for the presence of coliform bacteria and routine monitoring is based on the system type and size. RTCR assessments and corrective actions are required based on these monitoring results. A system is required to issue a Public Notice (PN) if they fail to monitor for bacteria, if *E. coli* bacteria are found, or if they fail to complete an assessment or corrective action.

A Level 1 Assessment is triggered when total coliform is found in the system. The public water system conducts the Level 1 Assessment and it is reviewed by the Drinking Water Division. Identified deficiencies noted in the Assessment are required to be corrected in a timely manner.

A Level 2 Assessment is triggered when a system incurs more than one Level 1 Assessment in a running 12-month period, or if a system has a confirmed *E. coli* bacteria presence within their system. The Level 2 Assessment is conducted by the Drinking Water Division with a representative of the public water system. Level 2 paperwork is completed and identified deficiencies are noted and the system is responsible for correcting deficiencies in a timely manner.

Significant deficiencies must be corrected within 120 days and minor deficiencies must be corrected within 12 months.

RTCR Assessments 2019

Type of RTCR Assessment	Number of Assessments Triggered	Number of Systems	% of Systems with Assessments
Level 1, Multiple TC +	132	132	9.8%
Level 2, 2 nd Level 1 triggered	96	63	4.7%
Level 2, <i>E. coli</i> MCL triggered	14	14	1.0%

RTCR Violations 2019

Type of RTCR Violation	Number of Violations Issued	Number of Systems	% of Systems with Violations
Treatment Technique, Level 1 requirements not met	0	0	0%
Treatment Technique, Level 2 requirements not met	0	0	0%
MCL – <i>E. coli</i> +	13	13	1.0%
Monitoring, Additional Routine, Major Routine	162	121	9.0%

Nitrate-Nitrite Rule

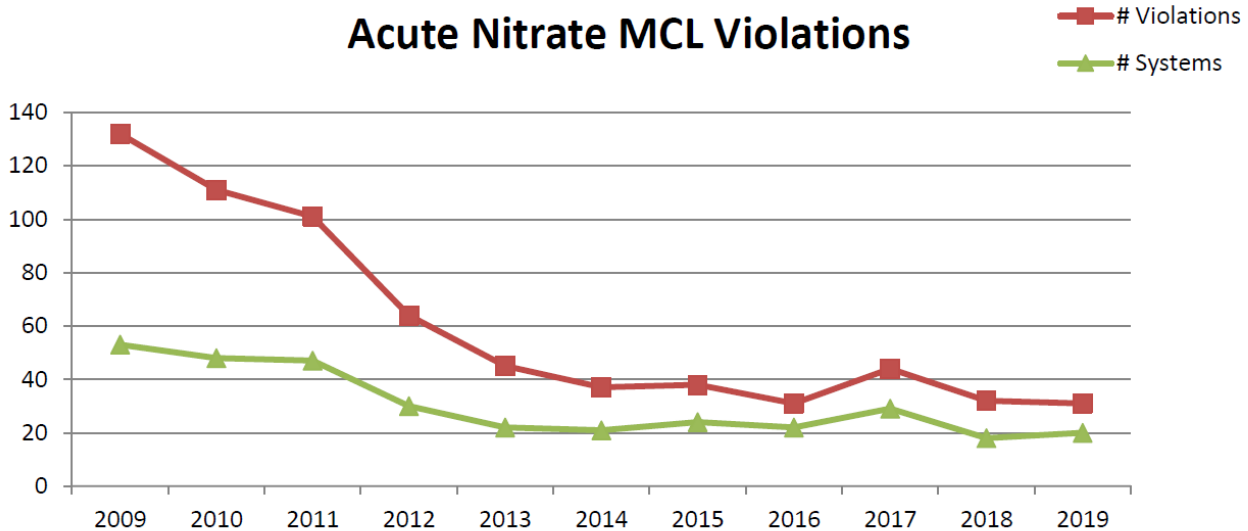
All public water systems monitor for nitrate-nitrite. Adverse health effects can be experienced when high levels of nitrate or nitrite, above their respective MCLs, are consumed by pregnant women, infants under six months of age, and nursing mothers. A system is out of compliance when it receives one monitoring or MCL violation. A system is issued an Administrative Order (AO) to correct a nitrate contamination problem if two nitrate-nitrite violations are issued within a consecutive three-quarter period.

A summary of the 2019 nitrate-nitrite violations is presented below along with historic data. Nitrate MCL violations have decreased significantly in Nebraska since 2009.

Nitrate-Nitrite Violations 2019

Violation	Number of Violations	Number of Systems	% of Systems with Violations
MCL – 10 mg/l	31	20	1.5%
Monitoring	17	16	1.1%

Acute Nitrate MCL Violations



Public Notification Rule 2019

Public Notification is required if a PWS receives an MCL, monitoring, or acute violation. There were no systems in violation of the PN Rule.

Rule	Number of Violations	Number of Systems
Public Notification Rule	9	7

Consumer Confidence Rule 2019

The Consumer Confidence Rule requires all community water systems to prepare and distribute a brief annual water quality report summarizing information regarding source water, detected contaminants, compliance, and educational information. There were no systems in violation of the Rule.

Rule	Number of Violations	Number of Systems
Consumer Confidence Rule	0	0

MCL Violations for Chronic Contaminants

All maximum contaminant level violations other than total coliform and nitrate are considered to be chronic in nature, i.e., the adverse health effects are evident only after exposure over a long period of time. These contaminants are listed at the end of this report. When a chronic contaminant is detected, the PWS must monitor quarterly for that contaminant. If the level decreases below the MCL, the monitoring frequency may be reduced. A public water system is issued an AO to correct a chronic

contamination issue after three quarterly MCL violations are issued in a rolling 12-month period. An AO is issued immediately if detected levels pose a health risk. Below are a list of tables that outline the type of contaminants and the number of violations issued for each.

Volatile Organic Chemical (VOC) Violations 2019

(Only Community and Non-transient, non-community systems monitor for VOCs.)

VOC Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with Violations
1,1-Dichloroethylene	0	0	0	0.0%
1,1,1-Trichloroethane	0	0	0	0.0%
1,1,2-Trichloroethane	0	0	0	0.0%
1,2-Dichloroethane	0	0	0	0.0%
1,2-Dichloropropane	0	0	0	0.0%
1,2,4-Trichlorobenzene	0	0	0	0.0%
Aldrin	0	0	0	0.0%
Benzene	0	0	0	0.0%
Carbon tetrachloride	0	0	0	0.0%
cis-1,2-Dichloroethylene	0	0	0	0.0%
Dicamba	0	0	0	0.0%
Dichloromethane	0	0	0	0.0%
Metribuzin	0	0	0	0.0%
Monochlorobenzene	0	0	0	0.0%
o-Dichlorobenzene	0	0	0	0.0%
para-Dichlorobenzene	0	0	0	0.0%
Styrene	0	0	0	0.0%
Tetrachloro-ethylene	0	0	0	0.0%
Toluene	0	0	0	0.0%
trans-1,2-Dichloroethylene	0	0	0	0.0%
Trichloroethylene	0	0	0	0.0%
Vinyl chloride	0	0	0	0.0%
Xylenes (total)	0	0	0	0.0%

Inorganic Chemical (IOC) Contaminant Violations 2019

(Only Community and Non-transient, non-community systems monitor for Inorganic Chemicals.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with MCL Violations
Antimony	0	0	0	0%
Asbestos	0	0	0	0%
Arsenic	8	8	6	0.4%
Barium	0	0	0	0%
Beryllium	0	0	0	0%
Cadmium	0	0	0	0%
Chromium total	0	0	0	0%
Cyanide (as free cyanide)	0	0	0	0%
Fluoride	0	0	0	0%
Mercury	0	0	0	0%
Nickel	0	0	0	0%
Selenium	0	0	0	0%
Sodium	0	0	0	0%
Thallium	0	0	0	0%

Non-Volatile Synthetic Organic Chemical (SOC) Contaminants 2019

(Only Community and Non-transient, non-community systems monitor for Non-Volatile Synthetic Organic Chemicals.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with Violations
2,3,7,8-TCDD (Dioxin)	0	0	0	0%
2,4-D	0	0	0	0%
2,4,5-TP	0	0	0	0%
Alachlor (Lasso)	0	0	0	0%
Atrazine	0	0	0	0%
Benzo[a]pyrene	0	0	0	0%
Butachlor	0	0	0	0%
Carbaryl	0	0	0	0%
Carbofuran	0	0	0	0%
Chlordane	0	0	0	0%
Dalapon	0	0	0	0%
Di(2-ethylhexyl)adipate	0	0	0	0%

Di(2-ethylhexyl)phthalate	0	0	0	0%
Dibromochloropropane	0	0	0	0%
Dieldrin	0	0	0	0%
Dinoseb	0	0	0	0%
Diquat	0	0	0	0%
Endothall	0	0	0	0%
Endrin	0	0	0	0%
Ethylene dibromide	0	0	0	0%
Glyphosate	0	0	0	0%
Heptachlor	0	0	0	0%
Heptachlor epoxide	0	0	0	0%
Hexachlorobenzene	0	0	0	0%
Hexachlorocyclopentadiene	0	0	0	0%
Lindane	0	0	0	0%
Methomyl	0	0	0	0%
Methoxychlor	0	0	0	0%
Oxamyl (Vydate)	0	0	0	0%
Pentachlorophenol	0	0	0	0%
Picloram	0	0	0	0%
Polychlorinated biphenyls	0	0	0	0%
Propachlor	0	0	0	0%
Simazine	0	0	0	0%
Toxaphene	0	0	0	0%

Radionuclide Violations 2019

(Only Community water systems monitor for Radionuclides.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with Violations
Gross Alpha Including Radon and Uranium	0	0	0	0%
Uranium Mass Combined Uranium	5	0	2	0.15%
Combined Radium (Radium - 226 and Radium -228)	1	0	1	0.07%

Disinfection Byproduct Violations 2019

(Only water systems that disinfect their water, monitor for Disinfection Byproducts and Disinfectant Residuals.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems
Total Trihalomethanes	1	0	1
Total Haloacetic Acids	0	0	0

Disinfection Byproducts Stage 1 Monitoring

Violation	# Violations	# Systems
Qualified Operator Failure	0	0

Disinfection Byproducts Monitoring

	# Violations	# Systems
Monitoring	1	1

Disinfectant Residual

MRDL	Treatment Technique # Violations	Treatment Technique # Systems	Monitoring # Violations	Monitoring # Systems
0	1	1	1	1

Lead and Copper Rule 2019

(Only Community and Non-transient, non-community water systems monitor for Lead and Copper.)

Contaminant	Number of Monitoring Violations	Number of Systems	Systems with Violations
Lead and Copper	2	2	0.15%

Surface Water Treatment Rule 2019

Type of Violation	Number of Violations	Number of Systems
Treatment Technique	3	2
Monitoring	0	0
Record Keeping	0	0

Ground Water Rule 2019

(All water systems who use ground water as their source water have to monitor for the Ground Water Rule.)

Type of Violation	Number of Violations	Number of Systems
Sanitary Survey – Failure to Address Deficiency	0	0
Sanitary Survey – Failure to Consult	0	0
Treatment Technique	0	0
Monitoring/Reporting/Recordkeeping	0	0

Administrative Orders 2019

The Drinking Water Division issues an Administrative Order (AO) when a public water system is significantly out of compliance. (Each contaminant has different parameters that indicate what constitutes “significantly out of compliance.”) Once an AO is issued, MCL violations continue to be issued until the system returns to compliance. Failure to comply with the terms of an AO can result in administrative action or revoking the system’s permit to operate.

	Total Coliform Monitoring	Nitrate	Arsenic	DBP
Number of Orders	0	0	0	1
Population Affected	0	0	0	2405

Variances and Exemptions

No variances or exemptions were issued in 2019.

MCL Violations other than Total Coliform/RTCR and Nitrate**Population Affected by Various Contaminants**

Contaminant	Population
Arsenic	25,254
Uranium Mass	139
Nitrate/Nitrite	3,579

CHAPTER 7:

Energy and Assistance Division

With the enactment of LB302, on July 1, 2019, the Nebraska Department of Environmental Quality and the Nebraska Energy Office (NEO) merged into the Nebraska Department of Environment and Energy (NDEE). The functions and programs of NEO are now primarily the responsibility of NDEE's Energy and Assistance Division (EAD). The EAD also provides information and assistance to the public and the regulated community and partners with other agency programs to manage specific projects.



This photo shows a residential solar installation a few miles south of Howells (in Colfax County) funded by a Dollar and Energy Savings Loan from NDEE.

The primary energy-related activities include administering the Dollar and Energy Saving Loan Program (DESL), administering the federally-funded state Weatherization Assistance Program (WAP), and conducting the overall State Energy Program (SEP). The SEP consists of the general pursuit of all energy-related activities and is funded by the Department of Energy (DOE). Specific efforts include the administration and implementation of the Nebraska State Energy Code, pursuit of an energy benchmarking effort focused on improving energy use in state buildings, and the implementation of the Renewable Fuel Infrastructure Program to improve air quality in Nebraska through the installation of ethanol blender pumps capable of dispensing clean burning high-blend ethanol. The DESL and WAP provide financial resources for Nebraska citizens to install upgrades to their homes or businesses to make them more energy efficient and decrease energy costs.

EAD assistance-based programs are focused on making compliance easy for the regulated community. Related programs include Small Business and Public Assistance – including serving the Small Business Compliance Advisory Panel, coordination of the Grow Nebraska Team, the One-Stop Permit Assistance Program, and the Public Advocate. Other division responsibilities include administering its Smoke Awareness Program, Nebraska Clean Diesel Rebate Program, and Volkswagen State Trust Activities.

A comprehensive annual report on energy activities is required by statute and the 2020 report will be included in a separate report submitted to the Governor and the Clerk of the Legislature by February 15, 2021. The Energy and Assistance Division annual report for 2019 may be found at <http://deq.ne.gov/publica.nsf/PubsForm.xsp?documentId=64448A52AB038D058625850E0061C7FE&action=openDocument>.

Energy

Dollar and Energy Savings Loan Program

The Dollar and Energy Saving Loans (DESL) program helps hundreds of Nebraska residents, local businesses, school districts, and municipalities make their homes and buildings more energy efficient, and helps them reduce energy bills by providing low-cost financing for energy-efficient equipment and projects. NDEE provides funds to Nebraska-based lending institutions to participate in a portion (50-90%) of each energy conservation loan. The DESL revolving loan system will continue to provide for energy conservation loans far into the future. These energy loans can be used for a multitude of energy-related projects including replacing inefficient lighting; installing highly-rated, energy-efficient heating and cooling systems; and installing solar projects for homes, places of business, or for an entire community.

In fiscal year 2020, the DESL program helped finance \$9.95 million worth of projects that improved energy efficiency. Over that time period the DESL program is estimated to have saved 143,345 kilowatt-hours of electricity, 65,780 therms of natural gas and reduced carbon emissions by 369.7 tons. Since the inception of the program in 1990, the DESL program has helped finance over 30,000 energy saving projects with the total cost of all improvements financed totaling over \$369.7 million.

Along with helping Nebraskans finance everyday energy improvements, the DESL program also provided relief for 2019 Nebraska flooding victims by helping finance repairs or the replacement of flood damaged foundations and equipment. Through the DESL program, affected Nebraskans were able to obtain very low (1%) interest loans through local lending institutions.

Weatherization Assistance Program

The EAD administers the federally funded Weatherization Assistance Program (WAP). This program enables low-income families in Nebraska to reduce their energy bills by making their homes more energy efficient. Program staff evaluate the homes of clients that meet income requirements and are approved for weatherization assistance services to identify the most effective energy- and dollar-saving improvements. Seven community action agencies and one non-profit agency are responsible for implementing the home weatherization improvements in Nebraska.

The types of improvements vary based on an energy audit analysis of the home; improvement investment averages between \$5,000 and \$7,500 per home, excluding the cost of health and safety improvements such as furnace repairs. The most common improvements are adding insulation, air sealing the home, repairing and replacing furnaces, installing energy-efficient lighting, and installing weather-stripping. Beyond the energy savings achieved, clients generally notice an increase in comfort due to reduced drafts and a more even temperature throughout their home. Between July 1, 2019 and June 30, 2020, 356 homes were weatherized across the state, helping to reduce the energy burden for low-income Nebraskans. The EAD staff inspects a minimum of 10-15% of all completed homes to ensure the quality of work performed.

The program receives funding from two sources: DOE's Weatherization Assistance Program and the Low-Income Home Energy Assistance Program (LIHEAP) financed through the Nebraska Department of Health and Human Services. Since the WAP began in 1977, \$216.8 million has been provided to make energy efficiency improvements in 69,975

homes. The EAD also received an additional \$500,000 from LIHEAP to use for Heating and Cooling Repair and Replacement. This program, started in January of 2019, is able to offer furnace and AC repair or replacement assistance to extremely low-income clients. This program was especially beneficial in providing heating system replacements needed as a result of Nebraska's historic flooding during the spring of 2019.

The Covid-19 pandemic has presented numerous challenges for the program. Changes to standard operating procedures were needed to conduct normal weatherization activities and to keep program clients and sub-grantee staff safe. NDEE Weatherization Assistance Program staff collaborated with sub-grantee representatives to develop guidance and identify needed training to enable weatherization services to take place in residential homes with potentially high-risk individuals at home. NDEE staff and sub-grantees will continue to work on updating these processes to ensure the safety of our clients while continuing to provide needed weatherization services across Nebraska.

State Energy Program and Special Projects

The Department of Energy (DOE) provides funds to states for the general operations of State Energy Offices. These funds support the day-to-day energy responsibilities of NDEE. The funds provide support for both the DESL and WAP programs and serve as a primary funding source for a number of other efforts that are the responsibility of the EAD. A description of those efforts follows.

Energy Codes

As a result of LB 405, signed into law by Governor Ricketts on May 8, 2019, the Nebraska Energy Code was updated from the 2009 standards established by the International Energy Conservation Code to the 2018 standard. Nebraska was among the first states to adopt the 2018 standard. With the adoption of the updated code, homeowners of the typical three-bedroom house are projected to save between \$165 and \$206 annually on energy costs.

NDEE staff have been actively involved in providing training on the new code, including five well-received training webinars. NDEE staff also partnered with other organizations by providing on-site training prior to the pandemic. NDEE is continuing virtual training efforts through a training partnership with the Midwest Energy Efficiency Alliance.

Building Energy Benchmarking

NDEE staff are administering a grant from DOE involving benchmarking energy use in state buildings. To date, energy benchmarking has occurred in approximately 60% of all state-owned buildings. Building managers now can document the value of subsequent energy conservation measures. DOE estimates that benchmarking programs can save anywhere from 7-20% energy savings on an annual basis. Additionally, this grant enabled the development of a tool to calculate economic, energy, and environmental impacts in public and commercial buildings. Finally, grant funds helped establish a curriculum for middle and high school students to learn how to benchmark energy use in any public or private building.

Renewable Fuel Infrastructure Program

From 2016 to 2019, the Energy Office staff administered the Access Ethanol Nebraska program that provided \$2.285 million in funds to support the installation of 88 high-blend ethanol pumps at 22 retail locations across the state. LB 585, enacted by the legislature in 2019, provided a second round of blender pump installations. With the support of the Nebraska Environmental Trust, NDEE will administer the Renewable Fuel Infrastructure Program over the next three years. Funds should be sufficient to support an additional 66

high-blend ethanol pumps, with a priority for presently underserved areas. Increased use of advanced biofuels can have a positive impact on air quality across the state.

State Heating Oil and Propane Programs

NDEE staff support the state's heating oil and propane users by participating in the DOE State Heating Oil and Propane Program. Price and supply information is obtained from Nebraska retailers and entered on the NDEE website. Consumers can then effectively plan for purchases of these commodities during the heating season.

Information may be found at:

- Propane Prices: <https://neo.ne.gov/programs/stats/inf/86.html>
- Heating Oil Prices: <https://neo.ne.gov/programs/stats/inf/87.html>

Small Business and Public Assistance Program

The Small Business and Public Assistance program and associated Small Business Compliance Advisory Panel (SBCAP) were created to comply with the Clean Air Act Amendments of 1990 to assist businesses in complying with air quality regulations. However, the Department has provided the same compliance assistance services and support to Water Quality and Land Management Division stakeholders as well, and this support has expanded to include energy programs.

Key activities of the program include developing guidance and outreach materials; responding to outside requests for information; hosting training and informational workshops, webinars, and one-stop meetings to help new businesses determine their permit applicability; expanding partnerships; helping the regulated community understand their obligations under state and federal law; and promoting compliance and permit assistance visits to small businesses and municipalities.

Grow Nebraska Team

The NDEE Grow Nebraska Team (GNT) was launched in July 2018 to work within and outside of the Department to support and assist the regulated community in a clear, timely, and efficient manner. The GNT assumed the duties and responsibilities of the previous NDEE Assistance Team. The core duty of both the Assistance Team, and now the GNT, is to make compliance easy for the regulated community. The GNT is responsible for NDEE's One-Stop Permit Assistance Program, which focuses on offering information and permit application assistance to the regulated community. In addition to making compliance easy, the team seeks to provide the public with clear and understandable explanations of environmental regulations, codes, policies, and processes.

The GNT meets quarterly and conducts special project meetings throughout the year. In 2020 the team's activities and work on an updated outreach plan were slowed by the pandemic. However, momentum continued and expanded on accomplishments outlined in the Department's 2019 outreach plan.

Key accomplishments for the team during the year included:

- Added updated permit information and resources to the Permit Matrix. The Matrix helps small businesses with compliance-related topics by sharing links to guidance documents, program overviews, regulations, supporting NDEE web pages, and additional resources.
- Participated in process improvement, training, and interagency coordination with the Nebraska State Fire Marshall and USDA Rural Development Program
- Held 12 compliance and energy code training webinars with 1,026 remote participants
 - Follow-up surveys provided immediate customer feedback
 - Estimated cost savings greater than \$30,000
- Conducted three multi-program Compliance Assistance Visits (two in-person, one virtual), including a community college and two privately-owned manufacturing facilities

- Maintained regular engagement with the Nebraska Industrial Council on the Environment (NICE)
- Established video events page on the NDEE website with webinar recordings, presentation slide decks, and compilations of answers to participant questions
- Provided ongoing social media outreach via Twitter, Facebook, and LinkedIn with monitoring of metrics in conjunction with the Public Information Office

Future plans include assessing changes in the Department's outreach and assistance processes in the wake of the pandemic, determining what activities should be retained, and maintaining the goal to provide necessary support for stakeholders in an effort to make compliance easy.

Other Division Programs

Smoke Awareness Program

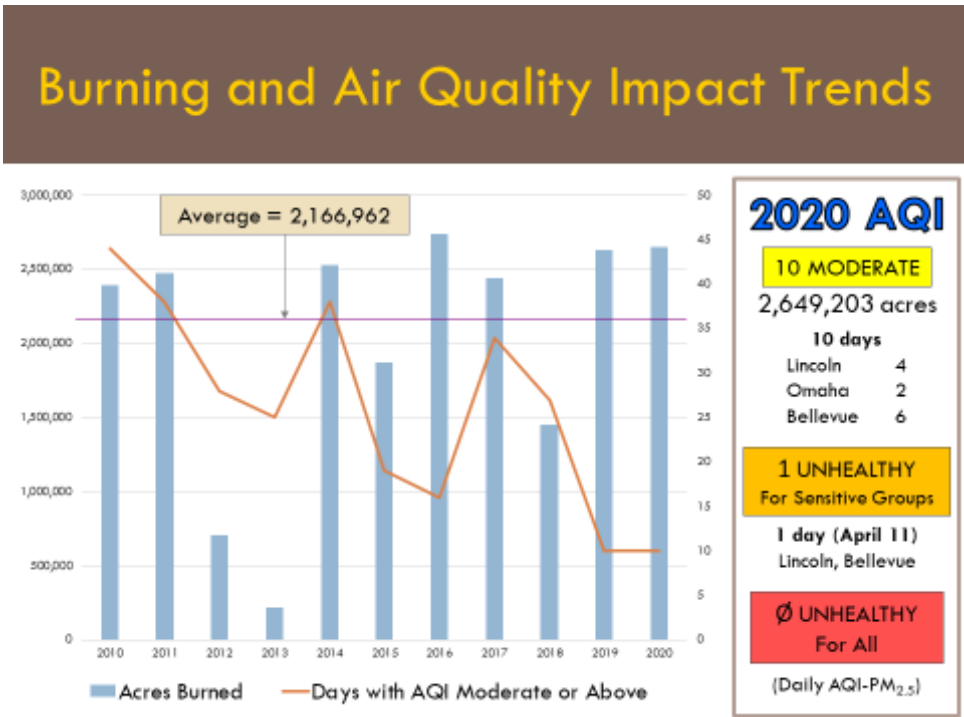
Prescribed fires and wildfires impact Nebraska's air quality and have received increased attention over the last several years. In early to mid-spring, ranchers and land managers burn an average of 2.3 million acres of tallgrass prairie in the Flint Hills of Kansas to control invasive plant species and to encourage growth of pasture grasses. Unpredictable spring weather conditions may provide only a few days of optimal weather for burning, which can result in widespread burning and large amounts of smoke on those days. Wind from the south is typical during the spring and Nebraska can experience air quality impacts (elevated fine particulates, known as PM_{2.5}, and ozone) for 24-48 hours following these events. Rangeland prescribed burning and wildfires also occur in Nebraska, though fewer acres are burned.

Collaborative efforts with key stakeholder agencies continued in 2020 and included a meeting in February 2020 and a post-season assessment teleconference in May 2020, both with a number of local health departments, the Nebraska Game and Parks Commission, University of Nebraska Agronomy-Horticulture program researchers, and landowners and land managers who rely on prescribed fire as a management practice. Other activities included communicating about potential smoke and air quality impacts, consulting on the scope and extent of smoke advisories, and planning for future burn seasons.

Daily tasks performed by EAD in conjunction with Air Quality Division staff during the 2020 burn season included:

- Monitoring air quality (PM_{2.5} and ozone levels)
- Generating maps showing fire locations and smoke plumes
- Reviewing weather and smoke forecasts, prescribed fire and smoke updates from Kansas, and smoke prediction models
- Updating the NDEE Smoke Awareness webpage with current information on smoke impacts and pollutant monitoring
- Conducting conference calls with stakeholders to determine the likelihood for smoke impacts and to generate advisories for the public
- Learning to interpret and deploy new National Weather Service software technologies.

Division staff coordinate and consult with other stakeholder agencies on days when heavy burning is predicted. If a health advisory is warranted, staff coordinated with the Nebraska Department of Health and Human Services (DHHS) to issue a Smoke Advisory to the public. Smoke Advisories were issued in 2020 on April 6-7, April 10-11, April 18-19, August 24-26, and September 16-18.



During the 2020 burn season, Nebraska experienced a total of 10 days with an Air Quality Index (AQI) for fine particulates (PM_{2.5}) in the *Moderate* range (19% of days) and one day with an AQI for ozone in the *Moderate* range (see chart above). The *Moderate* range is characterized by pollutant levels at or above the National Ambient Air Quality Standards for a 24-hour period, which may induce health effects in those who are unusually sensitive to fine particulates or ozone. The *Unhealthy for Sensitive Groups* range is characterized by pollutant concentrations which may induce health effects in those who are sensitive as opposed to unusually sensitive to air pollution. In comparison, Nebraska experiences daily AQI levels in the *Moderate* category for PM_{2.5} on about 24% of days outside of the burn season.

There were no days during the 2020 burn season in which the AQI values in Nebraska were in the *Unhealthy for All* category, as was the case in 2018 and 2019. Burn seasons in previous years (2010-2017) averaged about one day per year in the *Unhealthy for Sensitive Groups* category.

The activities conducted with other agencies in 2020 resulted in timely health advisories and notification to the public of potential air quality impacts from prescribed burning. Predictions of potential impacts, while cautious, were fairly accurate. The flow of information continues to improve, and a standardized process for dissemination of advisories is in place.

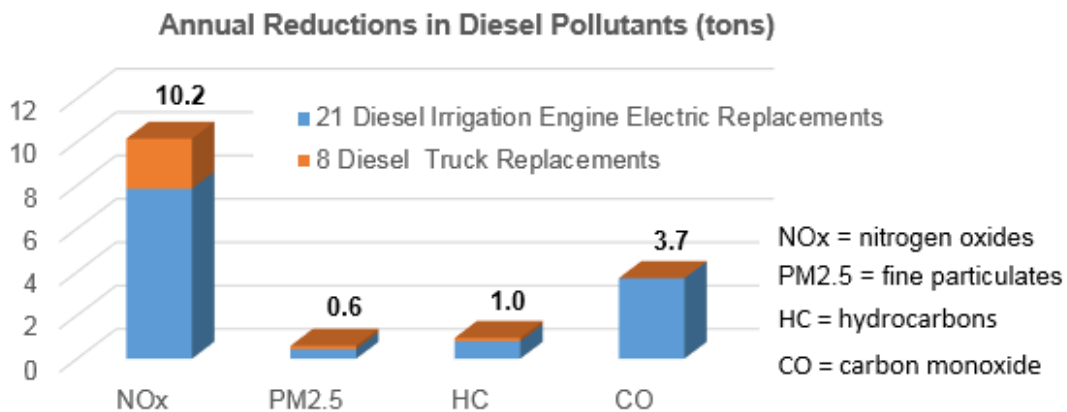
It should be noted that while both prescribed and wildfire burning affect localized air quality, Nebraska remains one of the few states to comply with all federally established National Ambient Air Quality standards.

Nebraska Clean Diesel Rebate Program

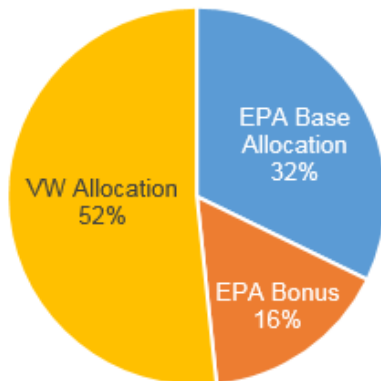
The Department established the Nebraska Clean Diesel Program in 2008 to distribute federal funding received from the EPA to reduce diesel emissions, as authorized by Congress in the Diesel Emissions Reduction Act (DERA). The DERA program provides annual funding to states for the establishment of grant, rebate, and loan programs for the early replacement of diesel engines and vehicles and the installation of diesel emission controls. Starting in 2017, NDEE has elected to

supplement the federal grant with funds from Nebraska’s portion of the *Volkswagen Diesel Emissions Environmental Mitigation Trust (VW Trust)*; see next section), which earns bonus EPA funding.

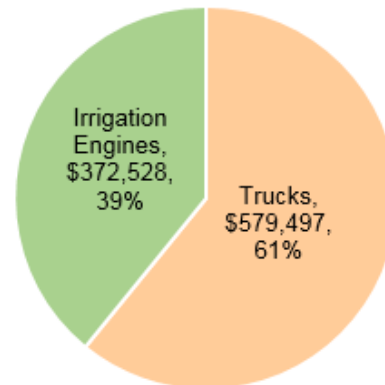
For the Clean Diesel Rebate Program annual funding cycle that opened in October 2019, NDEE has awarded or expects to award \$952,025 in rebates to 29 projects. The two types of projects funded are diesel truck replacements (eight trucks) and all-electric replacements of 21 diesel irrigation engines. The truck replacement rebates reimburse 25% of the cost (maximum \$70,000) of a new diesel vehicle or 35% (up to \$120,000) for a new compressed natural gas (CNG) vehicle meeting emission standards for nitrogen oxides that are stricter than the current EPA standard. The irrigation engine rebates are for replacement of a diesel irrigation engine with an electric motor (to power a surface pump) or for connecting an existing submersible pump directly to the electric grid. The rebate reimburses up to 60% of the cost of the electric equipment, installation, and required extension of electric service lines. All replaced diesel vehicles and engines must be scrapped in order to eliminate their emissions. Estimated annual reductions in diesel pollutants as a result of these replacement projects are shown below.



Funding for 2019 Clean Diesel Rebate Program \$984,414



2019 Clean Diesel Replacement Rebates \$952,025



2019-2020 Refuse Truck Replacement Rebates: \$579,497

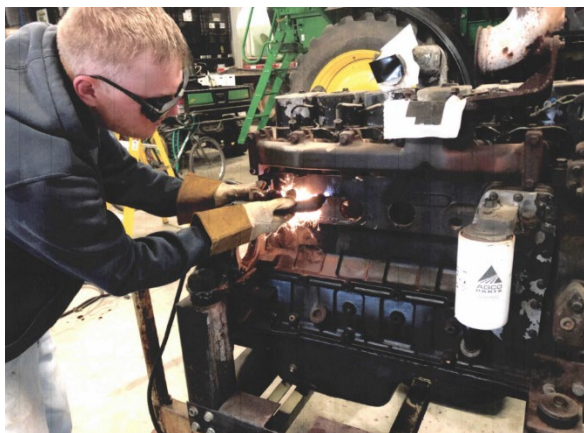
Name	Location	Replacement	Rebate Amount
City of Lincoln Fleet Services	Lincoln	2 Diesel Plow Trucks	\$103,255
Gretna Sanitation	Gretna	2 CNG Refuse Trucks	\$240,000
Soil Dynamics Composting Farm	Springfield	2 Diesel Truck Cabs	\$96,242
S2 Rolloffs	Fremont	2 Diesel Refuse Trucks	\$140,000



Left: Old refuse truck being scrapped. Above: new replacement refuse truck. Photos courtesy of Niederhaus Brothers Refuse, Lincoln

2019-2020 Irrigation Engine Replacement Rebates: \$372,528

Name	County	Replacement	Rebate Amount
Anson, Lester	Antelope	Electric motor	\$20,000
Asmus, David	Wayne	Electric motor	\$20,000
Beierman, Larry	Boone	Electric motor	\$20,000
Blase Farms LLC	Howard	Electric motor	\$20,000
Boner, Jason	Frontier	Electric motor	\$20,000
Brookhauser, Mark	Antelope	Electric motor	\$20,000
Drueke, William	Holt	Electric motor	\$15,694
Dyczek, Albert	Pierce	Electric motor	\$13,516
Eaton, Daniel	Holt	Electric motor	\$19,200
Hansen Farm	Frontier	Electric motor	\$20,000
Hinrikus, Daniel	Hall	Electric motor	\$18,653
Kunneemann, Dennis	Hitchcock	Electric motor	\$20,000
Ox Hoof LLC	Holt	Electric motor	\$20,000
Rainbow Farms Inc.	Antelope	Electric motor	\$18,476
RATLI LLP	Holt	Electric motor	\$17,312
Rodney Heiss Family Farms	Holt	Electric motor	\$20,000
Ruth, Barton D.	Polk	Electric motor	\$13,134
Snowshoe Cattle	Keith	Electric motor	\$13,945
Summers, George	Holt	Electric motor	\$6,479
Sweeney Farm	Phelps	Electric motor	\$19,099
Werkmeister, Joe	Frontier	Electric motor	\$17,837



Hole being cut in old diesel engine block. Photo courtesy Barton Ruth, Shelby



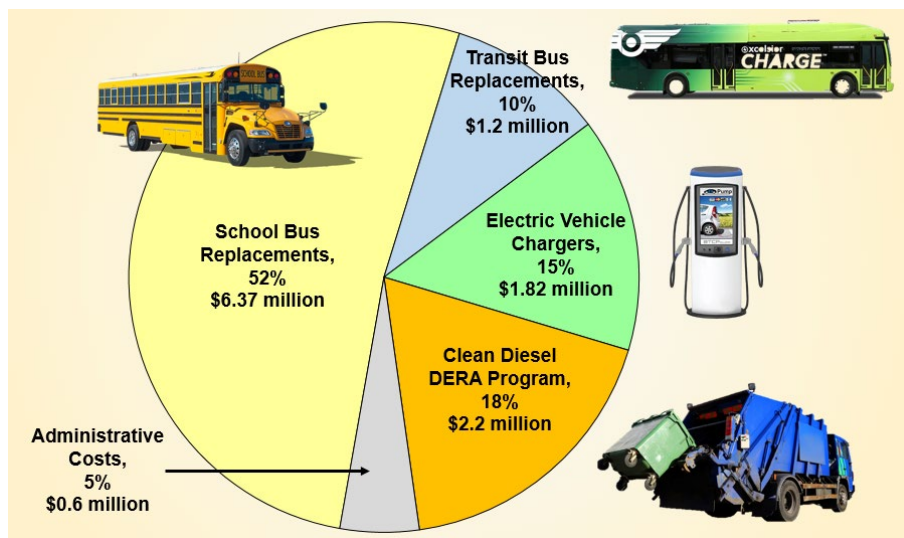
New electric motor in place at center pivot.

Volkswagen State Trust Activities

NDEE is the lead agency administering funds allocated to Nebraska from the *Volkswagen Environmental Mitigation Trust for State Beneficiaries, Puerto Rico, and the District of Columbia* (VW State Trust). The VW State Trust was established in 2017 as part of court settlements with Volkswagen AG and its subsidiaries to resolve charges that their diesel passenger vehicles were equipped with devices to circumvent emissions testing and allow them to emit excess nitrogen oxide gases in normal operation, in violation of the Clean Air Act. The initial allocation to Nebraska from the VW State Trust is approximately \$12.25 million. As directed by the Trust Agreement, these funds are to be used to undertake authorized actions to reduce nitrogen oxide (NOx) emissions in Nebraska.

Beneficiary Mitigation Plan

In April 2020, NDEE submitted a revised Beneficiary Mitigation Plan that summarizes how Nebraska intends to use the funds allocated to it under the Trust. The table and figure below present the project types selected for funding in Nebraska and the percentage of funds expected to be allocated to each type.



Planned Allocations of VW State Trust Funds by Mitigation Action

Action	Percent	Dollars
Transit Bus Alternative Fuel Replacements	10%	\$1,224,835
School Bus Diesel & Propane Replacements	52%	\$6,369,141
Zero Emission Vehicle (Electric Vehicle) Charging Infrastructure	15%	\$1,818,224
DERA: Irrigation engine & refuse Truck Replacements	18%	\$2,223,729
Administrative Costs*	5%	\$612,417
TOTAL	100%	\$12,248,347.48

* The State Mitigation Trust agreement allows reimbursement of administrative costs up to 15% of each funded project.

Nebraska’s Beneficiary Mitigation Plan is intended to provide the public with insight into the Department’s intentions for the use of the mitigation funds and information about the specific uses for which funding is expected to be requested. Nebraska may adjust its goals and specific spending plans at its discretion by providing an updated Beneficiary Mitigation Plan to the Trustee. Each state beneficiary must expend at least 80% of its initial allocation by October 2, 2027; otherwise, the

unexpended funds will be reallocated to other beneficiaries that have complied with that guideline. The Department has set a goal of expending Nebraska's share of the funds by the end of 2023.

Nebraska Diesel Emission Mitigation Program

NDEE has established the Nebraska Diesel Emission Mitigation Program to use funds from the VW State Trust to undertake projects to mitigate NOx emissions in addition to the Clean Diesel Program described above. During the fiscal year the Department continued to administer previous projects (Transit Bus Alternative Fuel Replacements and 2018 School Bus Replacements) and initiated two new programs: Electric Vehicle Charging Rebates and 2019 School Bus Replacements.

Electric Vehicle Charging Rebates

The Nebraska 2019 Electric Vehicle Charging Rebate Program provided financial incentives to municipalities and businesses to encourage installation of electric vehicle charging stations to serve light-duty electric vehicles in Nebraska. The program awarded rebates for 28 projects for the installation and maintenance of Level 2 and Direct Current (DC) Fast Charging equipment at public and workplace locations. The awards totaling \$1,818,222 are expected to result in 35 new electric vehicle charging locations in 18 Nebraska counties by April 2021.

2019 Electric Vehicle Charging Rebate Projects			
Recipient	City	Charger Type	Award
2627 Lodging, Inc. – Fairfield Inn	Scottsbluff	Level 2 Dual	\$ 8,139.07
B&R Stores – Russ's Market 33 rd & Hwy 2	Lincoln	DCFC + Level 2 Dual	\$ 68,048.40
B&R Stores – Russ's Market	Hastings	DCFC + Level 2 Dual	\$ 68,434.80
B&R Stores – Russ's Market Express	Waverly	DCFC + Level 2 Dual	\$ 68,002.20
B&R Stores – Super Saver	Columbus	DCFC + Level 2 Dual	\$ 77,313.60
B&R Stores – Super Saver	Grand Island	DCFC + Level 2 Dual	\$ 68,653.20
B&R Stores – Super Saver Fallbrook	Lincoln	DCFC + Level 2 Dual	\$ 67,704.00
Cambridge Hotel Group – Cobblestone Inn	Cambridge	Level 2 Dual	\$ 7,052.71
Charge Express – Downtown Geneva	Geneva	DCFC + Level 2 Dual	\$ 91,047.60
City of Aurora	Aurora	DCFC + Level 2 Dual	\$ 66,630.04
City of South Sioux City – HyVee	South Sioux City	DCFC + Level 2	\$ 77,411.00
H.I.S. Auto Care LLC	Lincoln	Level 2 Dual	\$ 12,568.35
High West Energy – Potter Service Center	Potter	DCFC + Level 2	\$ 75,381.00
Lincoln Public Schools	Lincoln	6 Level 2	\$ 56,111.78
Loup River PPD – Columbus Holiday Inn	Columbus	Level 2 Dual	\$ 20,645.81
Metropolitan Community College	Omaha	DCFC*	\$ 48,579.00
Nebraska City Utilities	Nebraska City	DCFC*	\$ 72,731.94
Nebraska Innovation Campus	Lincoln	DCFC + Level 2 Dual	\$ 91,430.46
NPPD Service Center	Scottsbluff	Level 2 Dual	\$ 9,948.00
NPPD – Lichti Brothers Truck Stop	York	DCFC + Level 2 Dual	\$ 91,138.38
NPPD – Downtown Norfolk	Norfolk	DCFC + Level 2 Dual	\$ 59,376.47
OPPD – Casey's General Store	Blair	DCFC + Level 2 Dual	\$ 108,667.00
OPPD - City of La Vista - Cabela's	La Vista	DCFC + Level 2 Dual	\$ 100,267.00
OPPD – City of Omaha I-480 Parking Lot	Omaha	DCFC + Level 2 Dual	\$ 134,267.00
OPPD – Casey's General Store	North Bend	DCFC + Level 2 Dual	\$ 108,667.00
OPPD – Casey's General Store	Syracuse	DCFC + Level 2 Dual	\$ 120,667.00
Polk County Rural Public Power District	Stromsburg	Level 2	\$ 6,866.00
University of Nebraska-Lincoln	Lincoln	3 Level 2 Dual	\$ 32,473.65
TOTAL AWARDED			\$ 1,818,222.46

DCFC = Direct Current Fast Charger;

Level 2 Dual = dual-port Level 2 charger

NPPD = Nebraska Public Power District;

OPPD = Omaha Public Power District

*Level 2 Charger is already present at site or will be provided using other funding.

2019 School Bus Replacement Rebates

In SFY2020, the Nebraska Diesel Emission Mitigation Program awarded a total of \$2,698,981 for the replacement and scrapping of 62 older diesel school buses. School districts were eligible for a 50% reimbursement (up to \$42,000) for a new diesel public school bus or 60% of the cost (up to \$57,000) for a new propane-fueled public school bus meeting NOx emission standards stricter than the federal standard. All projects were completed by the end of summer 2019.

2019 School Bus Replacement Rebates			
Anselmo-Merna Public School	\$41,913	Lexington Public Schools	\$42,000
Bancroft-Rosalie Community Schools	\$42,000	Maxwell Public Schools	\$42,000
Banner County School	\$40,508	Maywood Public Schools	\$57,000
Bayard Public Schools	\$42,000	McCool Junction Public Schools	\$57,000
Bellevue Public Schools	\$56,222	Meridian Public Schools	\$42,000
Bertrand Public Schools	\$42,000	Mid States School Bus	\$16,375
Blair Community Schools	\$42,000	Minden Public Schools	\$53,579
Brady Public Schools	\$40,350	Morrill Public Schools	\$39,750
Bridgeport Public Schools	\$50,232	North Bend Central Public Schools	\$42,000
Cedar Catholic HS, Hartington	\$22,475	Ogallala Public Schools	\$42,000
Centennial Public School	\$57,000	Ord Public Schools	\$42,000
Centura Public Schools	\$42,000	Overton Public Schools	\$57,000
Chambers Public Schools	\$42,000	Palmyra Schools	\$42,000
Chase County Schools	\$40,753	Paxton Consolidated Schools*	\$42,000
Clarkson Public Schools	\$42,000	Pleasanton Public Schools	\$52,739
Cozad Community Schools	\$42,000	Ralston Public Schools	\$42,000
Elba Public Schools	\$42,000	Randolph Public Schools	\$54,839
Elkhorn Valley Schools	\$42,000	Ravenna Public Schools	\$42,000
Elm Creek Public Schools	\$42,000	Raymond Central Public Schools	\$42,000
Friend Public Schools	\$42,000	Seward School District	\$42,000
Fullerton Public Schools	\$42,000	Shelby-Rising City Public Schools	\$42,000
Gretna Public Schools	\$42,000	Shickley Public Schools	\$42,000
Hastings Public Schools	\$42,000	Silver Lake Public Schools	\$42,000
Hemingford Public Schools	\$42,000	Southern Public Schools	\$42,000
Hershey Public Schools	\$42,000	St Paul Public School	\$42,000
High Plains Community Schools	\$42,000	Stapleton Public Schools	\$42,000
Humphrey Public Schools	\$42,000	Tri County Public Schools	\$42,000
Johnson County Central Public School	\$41,192	Twin River Public Schools	\$57,000
Johnson-Brock Public Schools	\$42,000	Wahoo Public Schools	\$42,000
Kearney Public Schools	\$57,000	York Public Schools	\$42,000
Kenesaw Public Schools	\$42,000	Yutan Public Schools	\$42,000

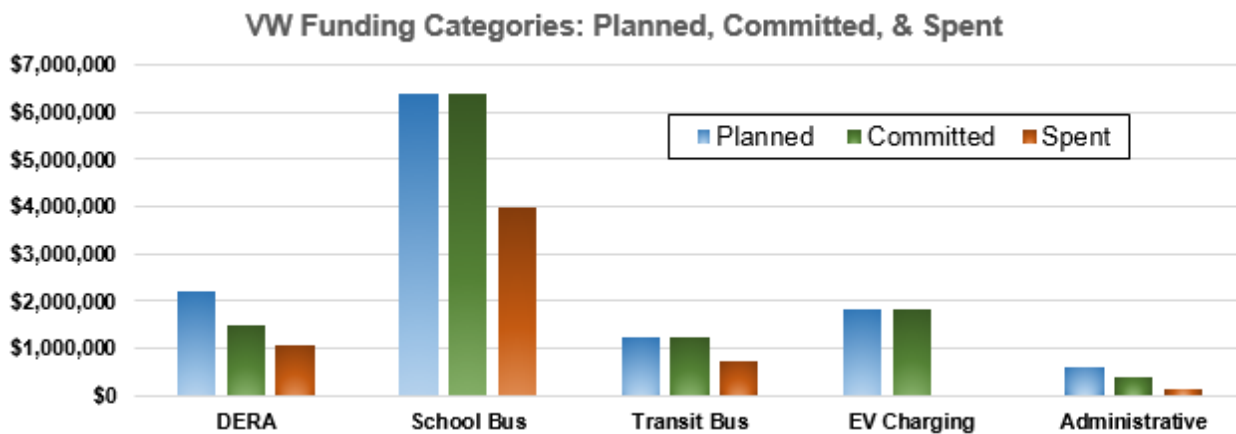
* Project withdrawn



Shelby-Rising City Public Schools replacement school bus partially funded through the 2019 School Bus Rebate Program.

Current Status of Nebraska’s Volkswagen State Trust Funds

As of the summer of 2020, NDEE has committed \$11,310,563 in funds from the Volkswagen State Trust in five funding categories, as shown in the figure below.



CHAPTER 8:

Expenditure and Budget Summary

The following information summarizes department expenditures for fiscal year 2020 and outlines budget projections for fiscal year 2021. The figures in the expenditure summaries were derived from the state accounting system. The budget projections were prepared by the Department.

Chart A shows actual FY20 expenditures for each federal grant, including the state match.

Chart B lists actual FY20 expenditures of programs funded by state general funds and/or cash funds. This chart lists expenditures by activity. Activity in this case is not considered a program activity, but is a category of expenditure. Activities listed in this chart are personal services, operating expenses, travel, capital outlay, contracting and distribution of aid.

Chart C outlines the proposed FY21 budget for each federal grant. Chart C also lists proposed match for each program for which a non-federal match is required. Additionally, match for the 319H grant is provided by in-kind services in the Groundwater Management Area program.

Chart D outlines proposed FY21 budgets for programs funded by state funds. This chart lists proposed expenditures by activity. As in Chart B, activity is not a program activity, but a category of expenditure. Activities listed are personnel services, operations, travel, capital outlay, contracting and distribution of aid.

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

Chart A -- Actual Expenditure for Each Federal Grant for FY20			
Grant / Program Title	Grant \$	Match \$	Total \$
Drinking Water State Revolving Fund	12,556,987		12,556,987
Clean Water State Revolving Fund	7,997,541	230,113	8,227,654
Weatherization	4,329,068		4,329,068
Performance Partnership	4,144,362	1,865,092	6,009,455
319 H Non-Point Source	1,986,133		1,986,133
Dollar & Energy Savings Loan (DESL)	1,776,147	85,123	1,861,270
Section 128 (a) State Response	509,119		509,119
State Energy Program (SEP)	488,001	102,563	590,565
Leaking Underground Storage Tanks	413,014	68,029	481,043
Clean Diesel	411,295		411,295
PM 2.5 Ambient Air Monitoring	368,002		368,002
Section 106 Monitoring	283,261		283,261
Superfund Pre-remedial	278,662		278,662
Superfund Core	145,054	2,613	147,667
Superfund Management Assistance	143,580		143,580
State Heating Oil & Propane Program (SHOPP)	140,556		140,556
Department of Defense	100,988		100,988
604 B Water Quality Management	95,963		95,963
Exchange Network	39,754		39,754
Superfund UNL Mead	6,111		6,111
Lead in Schools/Daycares	3,206		3,206
Totals	\$ 36,216,805	\$ 2,353,534	\$ 38,570,339
Non-grant federal expenditures*	\$ 3,458,888		
*Indirect Cost Pool, EQC, and USDA/RAPMA			
Performance Partnership is made up of Water 106/NPDES, Air 105, Groundwater, RCRA 3011, a part of nonpoint source program, Underground Injection Control, and Mineral Exploration			
A portion of the match for the State Revolving Fund Programs is provided by Revenue Bonds issued by NIFA			
An indirect rate of 48.23% was negotiated with EPA for FY20 and charged against direct payroll cost to cover agency administrative expenses			

Chart B - Actual Expenditure of State Funds for State Programs for FY20 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Subtotal	Distribution of Aid	Total
Petroleum Release Remedial Action Act	051	C	1,073,521	831,840	3,232	64,054	5,688,245	7,660,893	3,319,096	10,979,989
Volkswagen	065	C	55,345	18,733	93	-	-	74,170	4,075,590	4,149,761
Waste Reduction & Recycling	091	C	183,937	144,124	1,050	-	-	329,111	2,759,259	3,088,370
Emission Inventory - Title V	033	C	1,801,881	720,024	23,636	-	495	2,546,036	-	2,546,036
Ag - Livestock	016	G/C	1,491,034	514,201	47,771	-	17,550	2,070,555	-	2,070,555
Integrated Solid Waste Management	004	C	1,031,806	804,676	23,148	-	1,380	1,861,010	-	1,861,010
Litter Reduction	024	C	166,263	126,814	345	-	90,753	384,175	1,222,738	1,606,913
Superfund State Cost Share	023	G/C	34,785	10,971	-	-	415,113	460,868	270,949	731,817
Private Onsite Wastewater Cert & Registration	030	C	339,307	119,880	4,648	-	26,307	490,141	-	490,141
Engineering Reviews	061	G	232,721	5,146	30	-	53,256	291,153	-	291,153
Emergency Response	057	G/C	75,479	34,408	-	15,299	-	125,186	-	125,186
Private Onsite Wastewater Permit & Approval	037	C	55,079	21,860	800	-	23,161	100,900	-	100,900
Operator Certification	040	C	40,006	15,398	314	-	16,699	72,417	-	72,417
Chemigation	034	C	18,061	12,137	68	-	33,227	63,493	-	63,493
Air Construction Permits	020	C	43,857	16,470	542	-	-	60,869	-	60,869
Remedial Action Plan Monitoring Act	036	C	39,238	-	145	-	-	39,383	-	39,383
Community Right to Know	041	G	11,841	1,193	148	-	-	13,182	-	13,182
Energy Admin/Special Projects	816	C								
Totals			\$ 6,694,161	\$ 3,397,876	\$ 105,969	\$ 79,353	\$ 6,366,185	\$ 16,643,544	\$ 11,647,632	\$ 28,291,176

FUND TYPE LEGEND

G - Program Expends General Funds

C - Program Expends Cash Funds

G/C - Program Expends Both General and Cash Funds

An indirect rate of 48.23% was negotiated with EPA for FY20 and charged against direct payroll cost to cover agency administrative expenses.

Chart C - Proposed Budget for Each Federal Grant Program for State FY21			
Grant / Program Title	Grant \$	Match \$	Total \$
Drinking Water State Revolving Fund	9,566,759	527,806	10,094,565
Performance Partnership	7,626,518	1,861,774	9,488,292
Clean Water State Revolving Fund	7,316,654	1,572,848	8,889,503
319 H Non-Point Source	3,927,046		3,927,046
Weatherization	3,846,585		3,846,585
State Heating Oil & Propane Program (SHOPP)	3,284,042	112,942	3,396,984
Dollar & Energy Savings Loan (DESL)	919,054	638,667	1,557,721
State Energy Program (SEP)	901,030	100,206	1,001,236
Leaking Underground Storage Tanks	777,000		777,000
Section 128 (a) State Response	538,410		538,410
Section 106 Monitoring	317,051		317,051
Superfund Pre-remedial	290,611		290,611
PM 2.5 Ambient Air Monitoring	281,518		281,518
Clean Diesel	274,353		274,353
Superfund Core	166,785	18,532	185,317
Superfund Management Assistance	129,593		129,593
604 B Water Quality Management	116,960		116,960
Department of Defense	82,446		82,446
Superfund UNL Mead	9,995		9,995
Exchange Network	-		-
Lead in Schools/Daycares	-		-
Totals	\$ 40,372,411	\$ 4,832,775	\$ 45,205,186
Non-grant federal expenditures*	4,925,880		
*Indirect Cost Pool, EQC, and USDA/RAPMA			
Performance Partnership is made up of Water 106/NPDES, Air 105, Groundwater, RCRA 3011, a part of nonpoint source program, Underground Injection Control, and Mineral Exploration			
A portion of the match for the State Revolving Fund Programs is provided by Revenue Bonds issued by NIFA			
An indirect rate of 46.62% was negotiated with EPA for FY21 and charged against direct payroll cost to cover agency administrative expenses			

Chart D - Proposed Budget of State Funds for State Programs for FY21 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Subtotal	Distribution of Aid	Total
Integrated Solid Waste Management	004	C	1,654,056	661,019	24,500	-	10,000	2,349,575	-	2,349,575
Ag - Livestock	016	G/C	1,651,003	339,467	50,700	-	17,500	2,058,671	-	2,058,671
Air Construction Permits	020	C	34,378	14,287	1,500	-	-	50,165	-	50,165
Superfund State Cost Share	023	G/C	35,038	13,153	200	-	1,297,700	1,346,091	300,000	1,646,091
Litter Reduction	024	C	161,072	1,367,956	950	-	90,000	1,619,977	2,100,000	3,719,977
Private Onsite Wastewater Cert & Registration	030	C	364,653	142,994	5,200	-	-	512,847	-	512,847
Emission Inventory - Title V	033	C	2,049,364	2,255,996	25,500	-	2,000	4,332,861	-	4,332,861
Chemigation	034	C	22,422	13,239	-	-	32,000	67,661	-	67,661
Remedial Action Plan Monitoring Act	036	C	61,886	-	-	-	-	61,886	-	61,886
Private Onsite Wastewater Permit & Approval	037	C	60,807	23,172	1,600	-	25,000	110,578	-	110,578
Operator Certification	040	C	34,491	15,709	1,100	-	17,000	68,299	-	68,299
Community Right to Know	041	G	17,928	445	-	-	-	18,373	-	18,373
Petroleum Release Remedial Action Act	051	C	778,882	7,767,875	4,700	-	5,200,000	13,751,457	7,710,601	21,462,058
Emergency Response	057	G/C	83,119	40,912	2,050	-	-	126,081	-	126,081
Engineering Reviews	061	G	288,322	5,200	-	-	60,000	353,522	-	353,522
Volkswagen	065	C	100,000	19,175	-	-	-	119,175	3,700,000	3,819,175
Waste Reduction & Recycling	091	C	180,272	1,344,425	3,700	-	-	1,528,397	4,800,000	6,328,397
Energy Admin/Special Projects	816	C	132,266	675,088	1,300	-	776	809,429	-	809,429
Totals			\$ 7,709,957	\$ 14,700,112	\$ 123,000	\$ -	\$ 6,751,976	\$ 29,285,045	\$ 18,610,601	\$ 47,895,646

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

An indirect rate of 46.62% was negotiated with EPA for FY21 and charged against direct payroll cost to cover agency administrative expenses.

CHAPTER 9:

Distribution of Aid

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

Waste Management Aid Programs

Following is a summary of funds provided in FY2020 through Waste Grants programs, managed by the Waste Planning and Aid Section.

A. Litter Reduction and Recycling

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

In Calendar Year 2020, 51 Litter Reduction and Recycling grants were awarded, totaling \$1,740,176. The grants were awarded in three categories: Public Education, \$1,325,085; Cleanup, \$89,153; and Recycling, \$325,938. These grants were awarded to both public and private entities.

B. Waste Reduction and Recycling

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

In CY2020, 110 projects totaling \$4,271,764 were funded from the Waste Reduction and Recycling Incentive Grants Program.

C. Illegal Dumpsite Cleanup Program

The Illegal Dumpsite Cleanup Program, established in 1997, provides funding for political subdivisions to clean up solid waste disposed of along public roadways or ditches. Potential funding is limited to five percent of the total revenue from the disposal fee collected in the preceding fiscal year. In FY2020, the program provided \$23,017 to 24 recipients.

D. Landfill Disposal Fee Rebate Program

The Landfill Disposal Fee Rebate Program was created as an incentive to political subdivisions to support and encourage the purchasing of products, materials, or supplies that are manufactured or produced from recycled material. Funding for the program is from the Waste Reduction and Recycling Incentive Fund. In FY2020, the program provided 102,061 to 11 recipients.

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

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

Water Quality Aid Programs

A. Petroleum Remediation

The Petroleum Remediation program provides aid through the Petroleum Release Remedial Action Fund to assist in paying the cost of cleanup of sites where petroleum has leaked from tanks, generally service stations. Funding to this program is primarily provided by a fee on petroleum sold in Nebraska. Over \$245 million has been disbursed since the program began. The program provided \$3.1 million to 158 sites for investigation and cleanup in FY2020.

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

B. State Revolving Loan Fund Program

I. The Clean Water State Revolving Loan Fund provides low interest loans and loan forgiveness to municipalities for construction of wastewater treatment facilities and sanitary sewer collection systems. The sources of funding for this program include federal grants and funds from the Nebraska Investment Financial Authority (NIFA) through bond issuance. In FY2020, the CWSRF funded projects totaling \$68,026,200 in loans and \$1,110,250 in principal forgiveness and grant funds.

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

II. The Drinking Water State Revolving Fund provides low-interest loans and loan forgiveness to owners of public water systems. In FY2020, the program provided financial assistance to public water system projects totaling \$34,215,931, of which disadvantaged communities received \$4,674,530 in forgiveness funding.

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

CHAPTER 10:

Staffing

NDEE deals with a wide array of complex environmental issues and it is essential to our operations to recruit and hire technically competent people. Trained, experienced, and dedicated staff within NDEE provide the foundation to support the mission of the agency to protect and improve human health, the environment, and energy resources.

Staff retention continues to be an important goal for NDEE. Staff turnover impacts continuity in NDEE's programs and activities, and results in additional costs for recruitment and training of replacement staff members. NDEE 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.

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

The chart on the following page shows hiring activity on specific job categories for the last 10 years.

Employees Assuming Agency Positions										
<i>These figures include new hires, promotions, transfers and classification upgrades. Figures for 2020 are from July 1, 2019, through June 30, 2020.</i>										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Director, Deputy Director, Assistant Director, Division Administrator	0	0	0	0	1	5	0	0	0	1
Section Supervisor, Records Manager Budget Officer, IT Manager, Energy Division Chief	0	0	1	5	0	4	0	1	2	5
Unit Supervisor	0	2	1	1	2	0	0	0	3	1
Human Resources, Training Coordinator	0	0	0	0	1	0	1	0	1	0
Process Improvement Coordinator							1	0	0	0
Federal Aid Administrator, Financial Assurance Coordinator, Accountant	1	1	0	0	0	1	1	1	0	0
Clerical/Accounting Clerk	5	0	2	4	4	4	1	3	2	3
Information Technology, Public Information, Research Analyst	1	0	0	0	0	0	2	0	2	2
Attorney I, II & III	0	0	0	2	0	2	1	0	0	1
Environmental Engineer	3	2	2	7	2	4	5	4	6	1
Compliance Specialist	0	0	1	0	0	1	1	0	0	3
Programs Specialist I & II	9	11	10	7	11	19	8	11	9	15
Geologist, Groundwater I & II	0	2	4	2	3	1	0	0	0	2
Environmental Assistance Coordinator	1	1	1	0	0	0	0	1	1	1
Energy Conservation Program Specialist										1
TOTALS	20	19	22	28	24	41	21	21	26	36

CHAPTER 11:

Financial Assurance Requirements

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

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

NDEE FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
Municipal Solid Waste Disposal Areas (MSWDA), Sanitary Landfills (LF)							
Alliance Landfill	Alliance	MSWDA	03/17/94	\$ 4,854,171	\$ 2,044,793	Enterprise Fund	City of Alliance
Beatrice Area SW Agency	Beatrice	MSWDA	07/12/00	\$ 7,031,930	\$ 7,031,930	Financial Test	City of Beatrice
Butler County Landfill	David City	MSWDA	10/03/08	\$ 15,215,125	\$ 6,825,295	Trust Fund	US Bank
Douglas County Landfill	Bennington	MSWDA	03/28/00	\$ 13,552,420	\$ 13,552,420	Surety Bond	Evergreen Ntl. Indemnity Co.
G & P Dev Landfill	Milford	MSWDA	10/03/08	\$ 12,552,275	\$ 3,280,916	Trust Fund	US Bank
Gering Landfill	Gering	MSWDA	02/13/96	\$ 2,351,540	\$ 1,882,873	Enterprise Fund	City of Gering
L.P. Gill Landfill	Jackson	MSWDA	04/09/96	\$ 7,790,435	\$ 4,835,604	Trust Fund	Premier Trust
Grand Island Landfill	Grand Island	MSWDA	03/31/96	\$ 10,724,846	\$ 10,724,846	Financial Test	City of Grand Island
Hastings Area Landfill	Hastings	MSWDA	03/18/13	\$ 6,153,684	\$ 3,906,355	Enterprise Fund	City of Hastings
Hastings Landfill	Hastings	Sanitary LF	10/01/97	\$ 145,106	\$ 33,073	Faith & Credit	City of Hastings
Holdrege Landfill	Holdrege	MSWDA	07/29/96	\$ 3,181,558	\$ 2,162,499	Enterprise Fund	City of Holdrege
J-Bar-J Landfill	Ogallala	MSWDA	03/28/00	\$ 6,449,374	\$ 6,449,374	Performance Bond	Evergreen Ntl. Indemnity Co.
Kearney Landfill	Kearney	MSWDA	03/31/94	\$ 8,411,828	\$ 4,060,012	Trust Fund	Union Bank & Trust
Kimball Landfill	Kimball	MSWDA	05/10/96	\$ 1,973,824	\$ 1,178,699	Enterprise Fund	City of Kimball
Lexington Landfill	Lexington	Sanitary LF	07/25/96	\$ 322,114	\$ 263,083	Faith & Credit	City of Lexington
Lexington Area Agency	Lexington	MSWDA	01/19/97	\$ 2,950,097	\$ 2,423,605	Enterprise Fund	Lexington Area SW Agency
Lincoln Bluff Road Landfill	Lincoln	MSWDA	04/01/96	\$ 26,403,094	\$ 26,403,094	Financial Test	City of Lincoln
Loup Central Landfill	Elba	MSWDA	04/09/96	\$ 2,529,185	\$ 1,146,234	Trust Fund	Citizens Bank & Tr St. Paul
McCook Landfill	McCook	Sanitary LF	03/04/96	\$ 377,208	\$ 83,824	Faith & Credit	City of McCook
NE Ecology Landfill	Geneva	MSWDA	10/03/08	\$ 3,269,800	\$ 1,097,637	Trust Fund	US Bank
NNSWC Landfill	Clarkson	MSWDA	04/09/96	\$ 20,109,524	\$ 8,889,930	Enterprise Fund	NNSWC
Pheasant Point Landfill	Bennington	MSWDA	08/01/03	\$ 30,307,451	\$ 30,307,451	Surety Bond	Evergreen Ntl. Indemnity Co.
Sarpy County Landfill	Papillion	MSWDA	03/31/96	\$ 3,937,989	\$ 3,937,989	Enterprise Fund	Sarpy County
Sidney Landfill	Sidney	MSWDA	02/11/97	\$ 2,524,627	\$ 1,106,871	Enterprise Fund	City of Sidney
SWANN Landfill	Chadron	MSWDA	09/25/97	\$ 2,551,680	\$ 834,180	Enterprise Fund	SWANN
Valentine Landfill	Valentine	MSWDA	04/09/96	\$ 2,155,742	\$ 857,783	Enterprise Fund	City of Valentine
York Landfill	York	Sanitary LF	05/14/96	\$ 46,490	\$ 11,750	Faith & Credit	City of York
York Area SW Landfill	York	MSWDA	05/14/96	\$ 4,730,229	\$ 2,171,572	Enterprise Fund	City of York
*MSWDAs are landfills that are operating under current solid waste management regulations.							
**Sanitary LFs are closed facilities that have post-closure monitoring and maintenance.							
Construction/Demolition Landfills							
Abe's Trash Service C & D	Blair	Const./Demol.	03/30/98	\$ 284,565	\$ 284,565	Escrow Account	Bank of Bennington
Alliance C & D Landfill	Alliance	Const./Demol.	12/02/99	\$ 414,022	\$ 103,896	Enterprise Fund	City of Alliance

NDEE FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
Anderson Excavating C & D	Omaha	Const./Demol.	11/15/12	\$ 1,008,241	\$ 1,008,241	Letter of Credit	Availa Bank
Arnold C & D Landfill	Arnold	Const./Demol.	07/24/00	\$ 50,454	\$ 50,200	Enterprise Fund	Village of Arnold
Beatrice Area SW Agency	Beatrice	Const./Demol.	10/15/12	\$ 1,076,273	\$ 1,076,273	Financial Test	City of Beatrice
Benkelman C & D Landfill	Benkelman	Const./Demol.	10/15/06	\$ 69,078	\$ 22,733	Enterprise Fund	City of Benkelman
Broken Bow C & D Landfill	Broken Bow	Const./Demol.	11/23/07	\$ 131,809	\$ 44,486	Enterprise Fund	City of Broken Bow
Bud's Sanitary Service C & D	Newman Grove	Const./Demol.	06/01/97	\$ 39,204	\$ 39,204	Letter of Credit	First Natl. Bank Newman Gr
Eco-Storage C & D Landfill	Omaha	Const./Demol.	06/03/10	\$ 293,077	\$ 293,077	Surety Bond	Evergreen Ntl Indemnity Co.
Franklin C&D Landfill	Franklin	Const./Demol.	11/08/10	\$ 28,770	\$ 16,735	Enterprise Fund	City of Franklin
Gage County C & D Landfill	Beatrice	Const./Demol.	02/23/98	\$ 171,845	\$ 200,000	Letter of Credit	Security First Bank
Hawkins Construction C & D	Omaha	Const./Demol.	01/03/02	\$ 408,556	\$ 408,556	Surety Bond	Hartford Fire Ins. Co.
Holdrege C & D Landfill	Holdrege	Const./Demol.	05/01/09	\$ 323,698	\$ 77,814	Enterprise Fund	City of Holdrege
KGP Services C & D	Norfolk	Const./Demol.	11/06/03	\$ 100,795	\$ 100,795	Escrow Account	Elkhorn Valley Bank & Trust
Kimball C & D Landfill	Kimball	Const./Demol.	04/01/01	\$ 83,662	\$ 64,614	Enterprise Fund	City of Kimball
Lead Waste Mgmt C&D Landfill	Waterbury	Const./Demol.	05/28/14	\$ 75,056	\$ 75,056	Letter of Credit	Adrian State Bank
L.P. Gill Landfill C & D	Jackson	Const./Demol.	04/09/96	\$ 168,065	\$ 162,025	Trust Fund	Premier Trust
Lexington C & D Landfill	Lexington	Const./Demol.	09/30/98	\$ 345,431	\$ 172,513	Enterprise Fund	Lexington Area SW Agency
Lincoln North 48th St. C & D	Lincoln	Const./Demol.	04/01/96	\$ 3,632,390	\$ 3,632,390	Financial Test	City of Lincoln
Loup Central C & D Landfill#2	Elba	Const./Demol.	01/28/01	\$ 180,313	\$ 55,753	Trust Fund	Citizens Bank & Tr. St. Paul
NPPD Gerald Gentleman	Sutherland	Const./Demol.	04/01/95	\$ 268,980	\$ 268,980	Financial Test	NPPD
O'Neill C & D Landfill	O'Neill	Const./Demol.	06/01/01	\$ 235,788	\$ 51,291	Enterprise Fund	City of O'Neill
O'Neill Wood Resources C & D	Grand Island	Const./Demol.	10/10/18	\$ 473,390	\$ 23,289	Trust Fund	Minden State Bank & Trust
PAD LLC C & D Landfill	Hastings	Const./Demol.	06/05/02	\$ 209,008	\$ 210,484	Escrow Account	Five Points Bank
Plainview C & D Landfill	Plainview	Const./Demol.	09/26/00	\$ 79,697	\$ 63,288	Enterprise Fund	City of Plainview
Rainwood Hill LLC C & D	Omaha	Const./Demol.	05/29/15	\$ 215,018	\$ 215,018	Surety Bond	Hudson Insurance Co.
Red Cloud C&D Landfill	Red Cloud	Const./Demol.	04/04/17	\$ 99,986	\$ 12,180	Enterprise Fund	City of Red Cloud
Schmader C & D Landfill	West Point	Const./Demol.	07/27/12	\$ 205,163	\$ 193,805	Letter of Credit	Charter West Ntl Bank
Sidney C & D Landfill	Sidney	Const./Demol.	11/23/99	\$ 200,277	\$ 55,752	Enterprise Fund	City of Sidney
SW NE Solid Waste Agency	Imperial	Const./Demol.	06/01/01	\$ 154,619	\$ 78,002	Enterprise Fund	City of Imperial
Three Valleys C & D Landfill	Indianola	Const./Demol.	02/24/10	\$ 172,626	\$ 81,539	Letter of Credit	McCook Ntl Bank
York C & D Landfill	York	Const./Demol.	12/01/07	\$ 822,221	\$ 136,307	Enterprise Fund	City of York
Fossil Fuel Combustion Ash (FFCA), Industrial Waste Landfills, Monofills							
Ash Grove Cement Co.	Louisville	Indus. Waste	03/01/03	\$ 4,795,726	\$ 4,795,726	Insurance Policy	Great American E&S Ins. Co.
Clean Harbors Technology	Kimball	Monofill	08/01/95	\$ 2,867,743	\$ 2,867,743	Insurance Policy	Indian Harbors Insurance Co.

NDEE FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
Fremont Utilities	Fremont	FFCA	05/28/96	\$ 3,574,472	\$ 886,457	Enterprise Fund	City of Fremont
Hastings Utilities	Hastings	FFCA	02/01//01	\$ 13,482,200	\$ 2,510,194	Enterprise Fund	City of Hastings & PGA
NPPD Gerald Gentleman 4	Sutherland	FFCA	04/01/95	\$ 7,448,469	\$ 7,448,469	Financial Test	NPPD
NPPD Sheldon Station 4	Sheldon	FFCA	07/01/01	\$ 2,373,469	\$ 2,373,469	Financial Test	NPPD
OPPD NE City 1	NE City	FFCA	04/04/95	\$ 6,846,090	\$ 6,846,090	Financial Test	OPPD
OPPD NE City 2	NE City	FFCA	06/30/09	\$ 6,232,618	\$ 6,232,618	Financial Test	OPPD
OPPD North Omaha	Omaha	FFCA	04/04/95	\$ 9,182,733	\$ 9,182,733	Financial Test	OPPD
Platte Generation	Grand Island	FFCA	03/18/14	\$ 2,334,900	\$ 1,803,802	Financial Test	City of Grand Island
Waste Management of NE	Bennington	Indus. Waste	02/19/04	\$ 1,483,654	\$ 1,483,654	Surety Bond	Lexon Insurance Co.
Transfer Stations, Material Recovery Facilities, Compost Sites							
AltEn LLC	Mead	Compost	04/01/07	\$ 188,466	\$ 188,508	Escrow Account	American Ntl Bank
Bud's Sanitary Service	Newman Gr.	Transfer Station	05/19/17	\$ 2,970	\$ 2,970	Letter of Credit	First Natl. Bank, NG
Custer Transfer Station	Broken Bow	Transfer Station	11/08/16	\$ 10,339	\$ 10,339	Letter of Credit	Nebraska State Bank
Doernemann Const. Co.	Clarkson	Compost	12/15/99	\$ 101,013	\$ 101,013	Letter of Credit	Clarkson Bank
Eco-Storage Inc.	Omaha	Mat. Recovery	12/10/19	\$ 70,017	\$ 70,017	Surety Bond	Federal Ins. Co.
Edgetown Properties LLC	Madison	Transfer Station	06/27/12	\$ 7,500	\$ 7,500	Escrow Account	Frontier Bank
Fremont CRD, Inc.	Fremont	Transfer Station	07/02/03	\$ 13,125	\$ 13,125	Surety Bond	Capitol Indemnity Corp
King Transfer Station	Walthill	Transfer Station	04/02/96	\$ 1,182	\$ 1,187	Escrow Account	First Natl. Bank, Walthill
Medi-Waste Disposal	Lincoln	Processing Fac	01/24/18	\$ 36,036	\$ 36,036	Surety Bond	Cincinnati Ins. Co.
Prairieland Dairy LLC	Firth	Compost	08/01/15	\$ 313,830	\$ 313,830	Letter of Credit	First State Bank Nebraska
Recycling Enterprises of NE, Inc.	Lincoln	Mat. Recovery	08/30/12	\$ 7,734	\$ 7,734	Letter of Credit	CityBank & Trust Co.
River City Recycling	Omaha	Mat. Recovery	01/01/01	\$ 55,920	\$ 55,920	Escrow Account	US Bank Ntl Assoc
Sarpy County	Papillion	Transfer Station	04/17/12	\$ 98,643	\$ 98,643	Surety Bond	Travelers Surety Co. of Amer.
Seneca Sanitation	Dubois	Transfer Station	09/27/17	\$ 4,012	\$ 4,012	Letter of Credit	First Heritage Bank
Stericycle	Lincoln	Processing Fac	07/01/12	\$ 56,873	\$ 56,873	Surety Bond	Westchester Fire Ins. Co.
Waste Connections of NE	Gering	Transfer Station	08/15/03	\$ 25,831	\$ 25,831	Surety Bond	Evergreen Ntl. Indemnity Co.
Waste Connections of NE	Ord	Transfer Station	07/02/03	\$ 8,387	\$ 8,387	Surety Bond	Capitol Indemnity Corp
Waste Connections of NE	Central City	Transfer Station	05/30/13	\$ 9,223	\$ 9,223	Surety Bond	Platte River Ins Co.
Loveland Products	Fairbury	RCRA PC	12/10/15	\$ 630,697	\$ 630,697	Letter of Credit	Bank of Nova Scotia
Bosch Security Systems	Lincoln	RCRA PC	06/02/09	\$ 10,344	\$ 10,344	Letter of Credit	Bank of Montreal
Clean Harbors Technology	Kimball	RCRA Closure	09/16/13	\$ 34,111,908	\$ 34,111,908	Insurance Policy	Indian Harbors Insurance Co.
Douglas County Landfill	Omaha	RCRA PC	03/08/85	\$ 43,911	\$ 274,952	Trust Fund	First Natl Bank of Omaha
Eaton Corporation	Omaha	RCRA PC	06/08/09	\$ 4,463,158	\$ 4,463,158	Letter of Credit	JP Morgan/Chase Bank

NDEE FINANCIAL ASSURANCE

Facility Name	Location	Permit Type	Initial Date	Obligated Amount	Current Amount Demonstrated	FA Mechanism	Guarantor
Safety Kleen	Grand Island	RCRA Closure	10/15/01	\$ 152,046	\$ 152,046	Insurance Policy	Indian Harbors Insurance Co.
Safety Kleen	Omaha	RCRA Closure	10/15/01	\$ 402,841	\$ 402,841	Insurance Policy	Indian Harbors Insurance Co.
Tenneco Automotive Inc.	Cozad	RCRA PC	09/17/97	\$ 52,366	\$ 52,366	Letter of Credit	Canadian Imperial Bank
Van Diest Supply Liquid Plant	McCook	RCRA PC	02/16/06	\$ 1,691,925	\$ 1,691,925	Letter of Credit	1st State Bank Webster Cty IA
Douglas County Landfill	Omaha	RCRA Cor Act	08/20/18	\$ 1,821,035	\$ 1,821,035	Financial Test	Douglas County
Underground Injection Control (UIC)							
Crow Butte Resources, Inc.	Crawford	UIC		\$ 51,772,730	\$ 51,772,730	Letter of Credit	Royal Bank of Canada
Waste Tire Haulers							
ABC Tire LLC	Kansas C, KS	Waste Tire	06/24/13	\$ 10,000	\$ 10,000	Surety Bond	Nationwide Mutual Ins.
Abe's Trash Service Inc.	Omaha	Waste Tire	02/08/19	\$ 5,000	\$ 5,000	Letter of Credit	Bank of Bennington
B-Rose Transportation	Alvo	Waste Tire	04/16/15	\$ 60,000	\$ 60,000	Surety Bond	Merchants Bonding Co.
Butler County Landfill	David City	Waste Tire	05/16/97	\$ 50,000	\$ 50,000	Surety Bond	Travelers Casualty & Surety
Champlin Tire Recycling Inc	Concordia KS	Waste Tire	10/04/96	\$ 10,000	\$ 10,000	Letter of Credit	United Bank & Trust
D & B Enterprise LLC	Correctville, IA	Waste Tire	01/22/18	\$ 10,000	\$ 10,000	Surety Bond	Western Surety Co.
Don's Used Tires	Lincoln	Waste Tire	03/13/03	\$ 5,000	\$ 5,000	Surety Bond	Old Republic Surety Co.
Gill Hauling Inc.	Jackson	Waste Tire	02/04/09	\$ 10,000	\$ 10,000	Letter of Credit	Dakota County State Bank
Hoke Transport LLC	Gering	Waste Tire	04/04/12	\$ 5,000	\$ 5,000	Surety Bond	Old Republic Surety Co.
Intrawest LLC	Fountain CO	Waste Tire	09/15/15	\$ 5,000	\$ 5,000	Surety Bond	U.S. Specialty Ins. Co.
J & M Steel	Hastings	Waste Tire	01/15/15	\$ 5,000	\$ 5,000	Letter of Credit	Five Points Bank
Kenny Frazier	Edmond OK	Waste Tire	05/26/04	\$ 5,000	\$ 5,000	Escrow Account	Bank of America, Inc.
LAL Enterprise, LLC	Alvo	Waste Tire	04/16/15	\$ 60,000	\$ 60,000	Surety Bond	Merchants Bonding Co.
Leo Porter	Oshkosh	Waste Tire	02/21/08	\$ 15,000	\$ 15,000	Escrow Account	Nebraska State Bank
Liberty Tire Services of Ohio	Savage, MN	Waste Tire	03/09/09	\$ 10,000	\$ 10,000	Surety Bond	Evergreen Ntl. Indemnity Co.
Million Tire Disposal	Sarcoxi, MO	Waste Tire	09/16/16	\$ 5,000	\$ 5,000	Surety Bond	Great American Ins.Co.
New Horizons Enterprises LLC	Lincoln	Waste Tire	05/11/12	\$ 5,000	\$ 5,000	Surety Bond	Granite Re, Inc.
Omaha Casing Co. Inc	Omaha	Waste Tire	12/05/14	\$ 5,000	\$ 5,000	Letter of Credit	Security Natl. Bank
Resource Management Co	Brownell, KS	Waste Tire	01/17/06	\$ 10,000	\$ 10,000	Letter of Credit	First State Bank, Ness Cy,KS
River City Recycling	Omaha	Waste Tire	04/22/16	\$ 43,750	\$ 43,750	Letter of Credit	Access Bank
Shockley Trucking	Octavia	Waste Tire	02/24/16	\$ 10,000	\$ 10,000	Surety Bond	Universal Surety Co.
Tire Cutters	Centralia KS	Waste Tire	05/13/06	\$ 5,000	\$ 5,000	Letter of Credit	First Heritage Bank
Tire Town, Inc.	Leavenworth,KS	Waste Tire	06/11/15	\$ 10,000	\$ 10,000	Letter of Credit	Bank of the Prairie
Uribe Scrap Tires, LLC	Lincoln	Waste Tire	01/06/14	\$ 5,000	\$ 5,000	Surety Bond	Ohio Casualty Ins. Co.