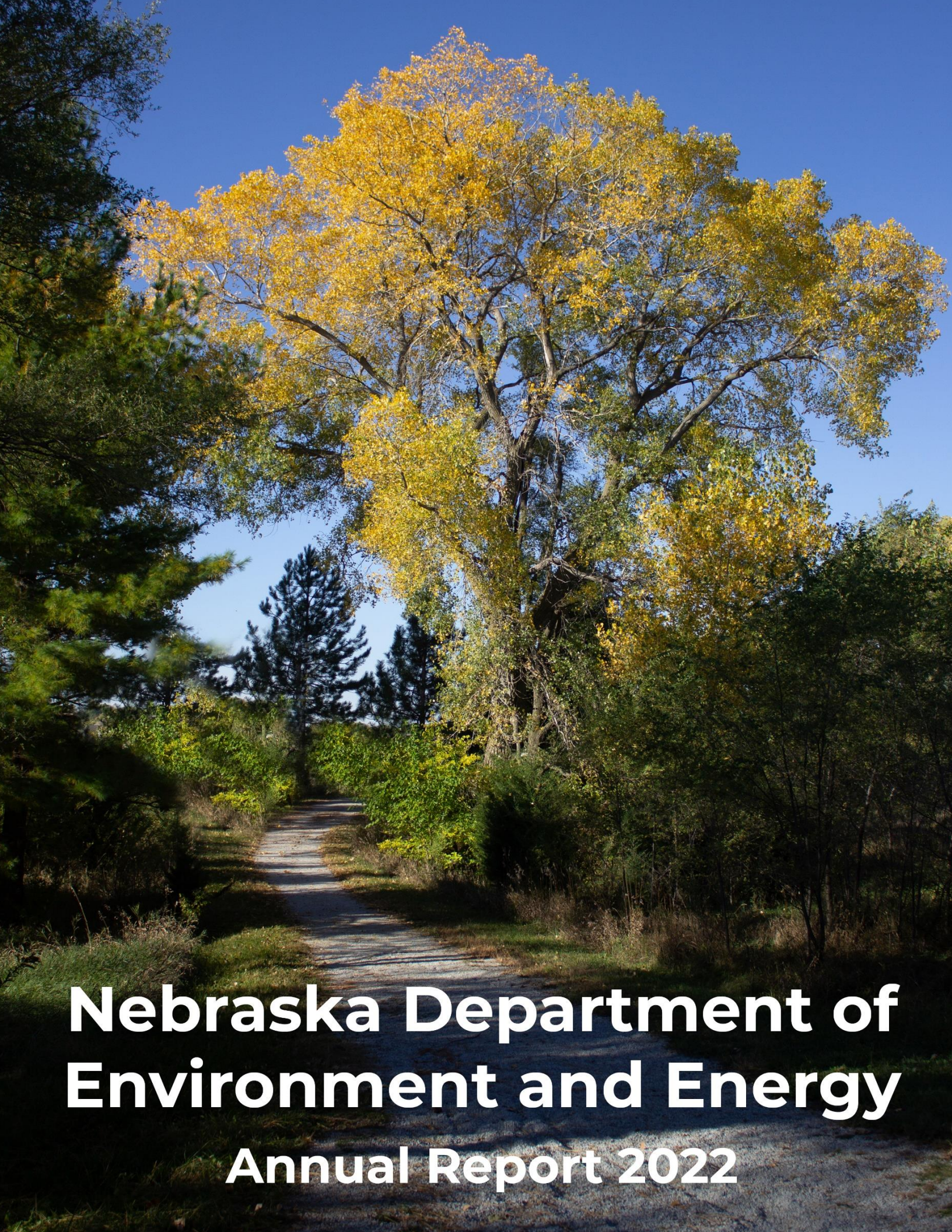

Nebraska Department of Environment and Energy

Annual Report 2022

More information about the
Nebraska Department of Environment and Energy

NDEE's vision is everyone living, working and enjoying a healthy Nebraska environment. Our mission is to protect and improve human health, the environment and energy resources. We enforce regulations and provide assistance, but to fully accomplish this vital mission we need your help. We encourage you to work with us to ensure future generations can use and enjoy the precious natural resources we enjoy today.

The agency's mailing address:
Nebraska Department of Environment and Energy
P.O. Box 98922
Lincoln, NE 68509-8922

Main phone number: (402) 471-2186
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Toll-Free air construction permit hotline 1-877-834-0474
Public Information Office: (402) 471-4223
Records requests: (402) 471-3557

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
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CHAPTER 1:
Agency Overview

The Nebraska Department of Environment and Energy (NDEE) marked its 50th year as a state agency in 2021. The agency was originally created with the passage of the Environmental Protection Act in 1971. At that time, the agency was named the Nebraska Department of Environmental Control; it later became the Nebraska Department of Environmental Quality in 1992. With the 2019 merger of the Nebraska Energy Office, the agency became the Nebraska Department of Environment and Energy to better reflect its new focus.

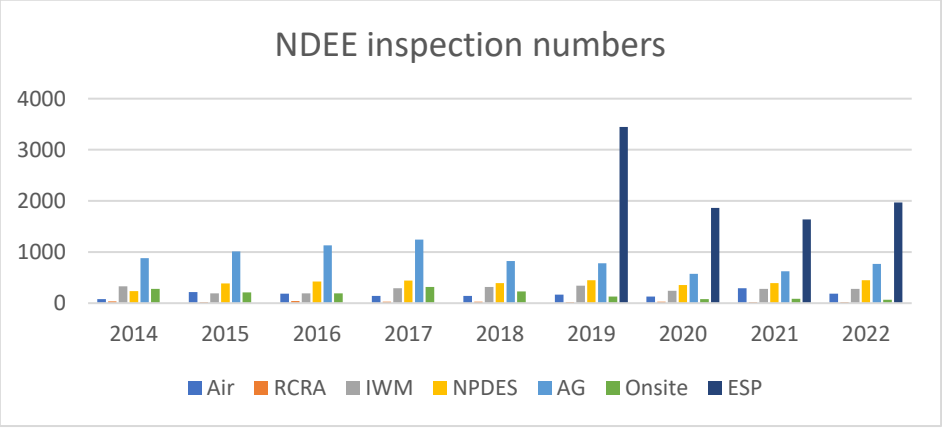
The 2021 Nebraska Legislature passed a bill transferring several EPA state-delegated environmental health programs from the Department of Health and Human Services (DHHS) to the Nebraska Department of Environment and Energy. On July 1, 2021, over 40 DHHS teammates officially became part of NDEE's team.

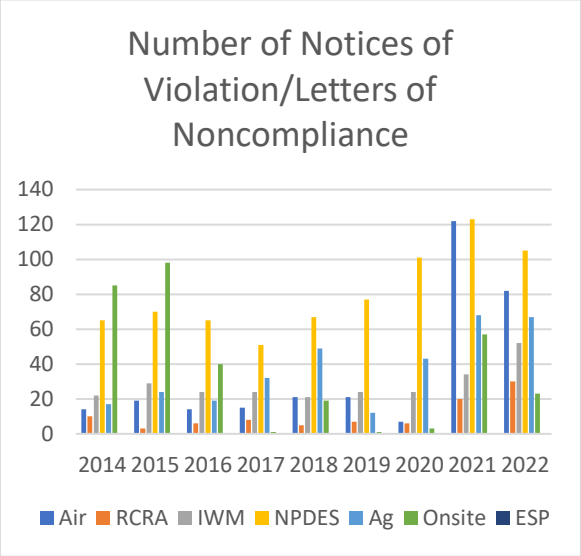
Compliance Accomplishments Since 2014

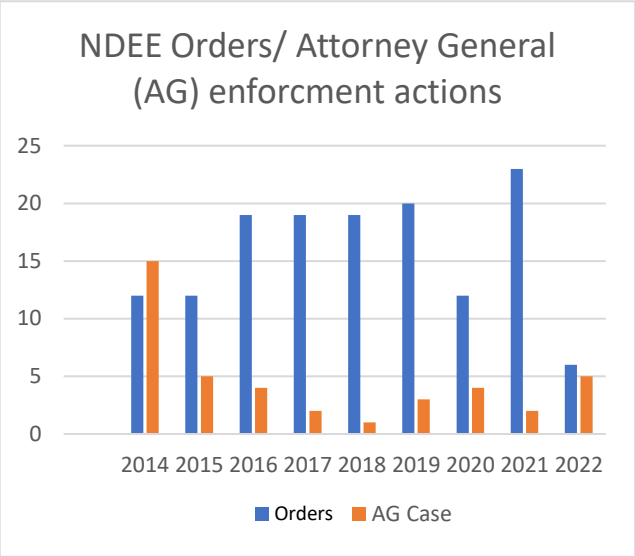
NDEE is tasked with protecting and improving human health, the environment, and energy resources. The Department is privileged to work with many Nebraskans who are consciences stewards of the land. Through this collaboration and the Department's regulatory oversight, NDEE strives to preserve air, land, water, and energy resources both now and for future generations.

With this approach, NDEE has maintained a 92-percent voluntary compliance rate among its inspected facilities since 2014. During that time, the department conducted more than 26,000 inspections and issued 2,046 letters of noncompliance. Of the facilities that received a letter of noncompliance, 91 percent voluntarily returned to compliance under NDEE's guidance.

The department prioritizes working alongside Nebraskans from a place of goodwill and trust to achieve compliance with rules and regulations that are protective of the environment, but NDEE does have the tools to pursue formal enforcement if necessary. The department has only needed to pursue formal enforcement 183 times since 2014; only 1 percent of all department inspections result in formal enforcement proceedings. The following graphs offer a depiction of the department's inspections performed, letters of noncompliance issued, and formal enforcement proceedings pursued.







RCRA = Resources Conservation Recovery Act; IWM = Integrated Waste Management; NPDES = National Pollutant Discharge Elimination System; Ag = Agriculture; Onsite = Onsite Waste Management; ESP = Environmental Safety Program

This report focuses on activities occurring in state fiscal year 2022 (July 1, 2021, to June 30, 2022). During FY2022 NDEE was authorized for a staffing level of 270 full-time employees.

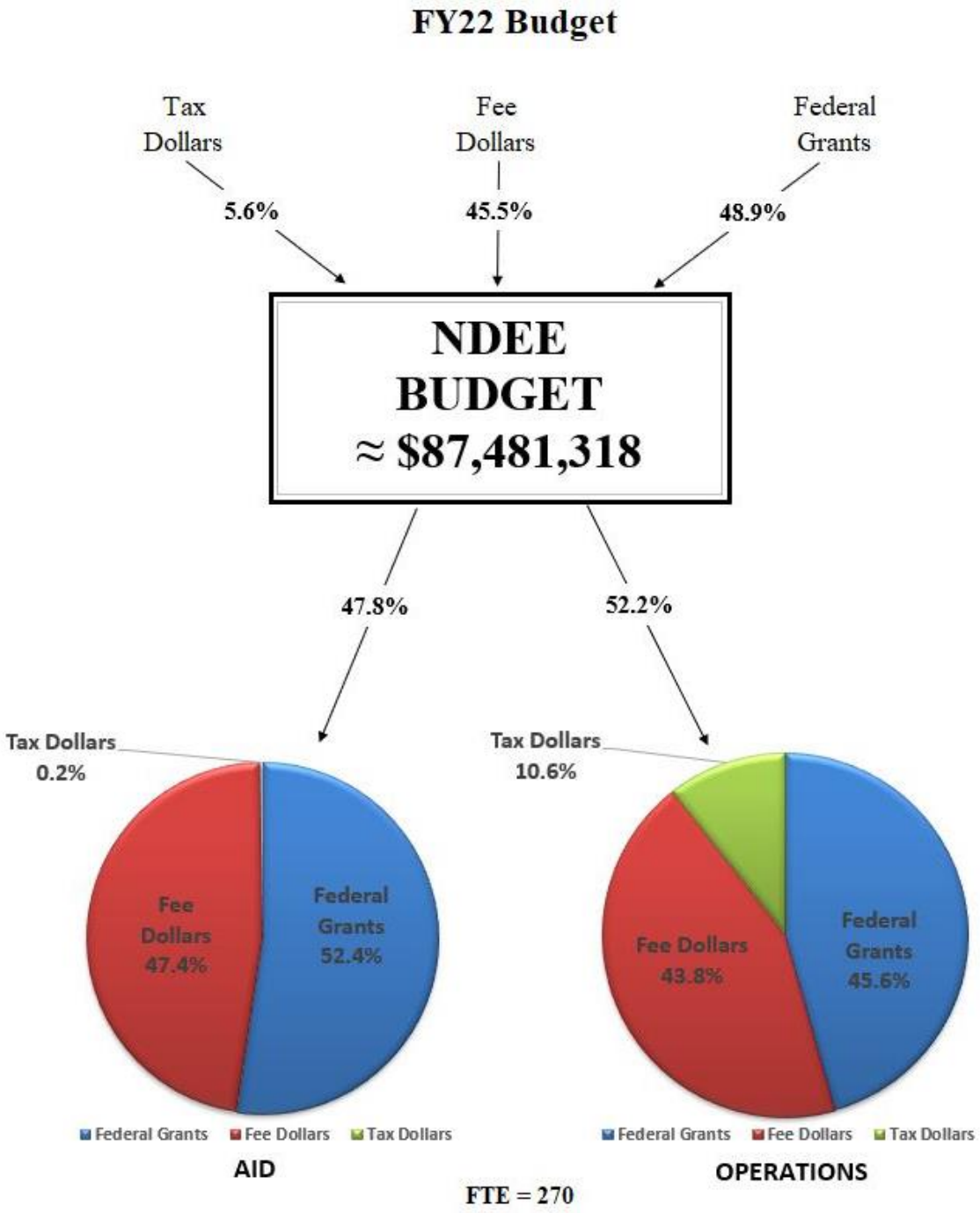
Department Budget

The NDEE has an FY2022 annual budget of approximately $87 million. This includes money from federal grants, state taxes, and fees.

The table on 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)	$20.8 million	45.6%	$21.9 million	52.4%
State General Funds (Tax $)	$4.8 million	10.6%	$0.1 million	0.2%
Cash Funds (Fees)	$20.0 million	43.8%	$19.80 million	47.4%
Total	$45.6 million		$41.8 million	

The following graphic depicts NDEE's FY2022 budget by funding source and percent expended by fund type and activity (aid or operations).

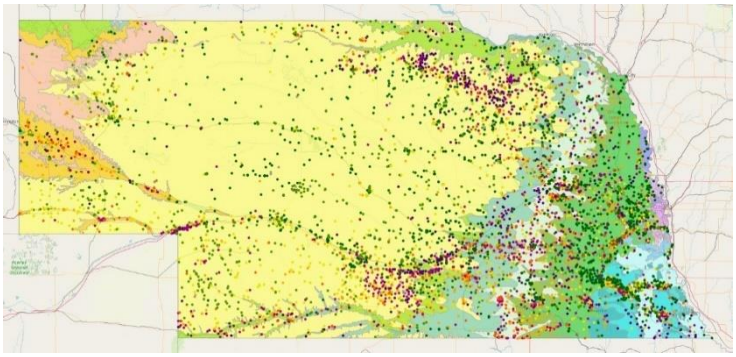


Significant Topics in 2022

The following are some of the significant topics, challenges, and accomplishments that NDEE addressed in FY2022:

Groundwater Clearinghouse

NDEE launched the groundwater clearinghouse in July 2021. With the launch of this website, groundwater information in the state is now easily accessible to the public. It serves as a valuable resource for Nebraska residents making decisions about well placement and water quality.



The website shows a map of Nebraska water wells and features various layers, including a map of the High Plains Aquifer and soil data.

The database has over 1.6 million sample results and is believed to be the largest collection of nitrate groundwater data in the nation with over 200,000 results from 34,000 wells.

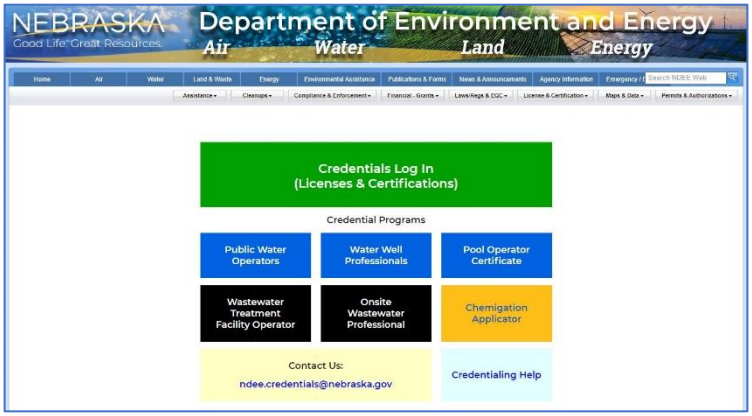
The clearinghouse is a diverse resource that allows users to view nitrate levels over time, see information about the well, and access well registration information on the Nebraska Department of Natural Resources website.

Most of the groundwater quality data used in the database comes from the state's 23 Natural Resources Districts (NRDs), who have been collecting data since the 1970s.

Work on the project started in 2017, with funding from U.S. Environmental Protection Agency grants. To create this application, NDEE worked with the Groundwater Protection Council (GWPC), a national nonprofit organization whose members are the state agencies that protect and regulate groundwater resources. The app uses open-source code that can be adopted by other organizations interested in sharing groundwater data.

Credentialing Portal

In June 2022, NDEE launched a new online credentialing portal for several professional licenses and certifications. This online service streamlines the application and certification process for water professionals throughout the state.



In Nebraska, public water operators, water well professionals, pool operators, wastewater treatment facility operators and onsite installers are required to have a license, obtain continuing education (CE) credits, and renew their license every two years.

The credentialing portal allows these water professionals to apply for and maintain their licenses online. Users can create an account to view exam dates and training course availability and sign up for training and exams. Users can also use a credit card to pay for their books, exams, license renewals and their credentials through the portal.

In addition, the portal makes tracking CE credits easier. Users can log in to review their current credits and add new ones. They can also update their personal information. These added credits and information changes are processed the same day thanks to the portal's automation.

Previously, the application and renewal processes were paper-driven. Licensed professionals had to submit exam applications, CE credits, payments, and personal information changes by mail. This paper process took 3-5 days to complete, and professionals needed to contact NDEE to review or manage their CE credits.

The credentialing portal provides live feedback regarding application review, and users may view and print their certificate from home. As the agency transitions to this new online process, the paper process will be phased out over the next few years.

The online portal saves NDEE-certified professionals several steps when maintaining their licenses, making it easier to access their information and know what is required of them so they can do their jobs protecting Nebraskans' health and water resources.

Passage of LB 1102

The Nebraska Department of Environment and Energy worked collaboratively with the 2022 Nebraska Legislature on the passage of LB 1102. LB 1102, introduced by Senator Bruce Bostelman, added new enforcement tools to improve protection of Nebraska's environment. LB 1102 created the Nebraska Environmental Response Act, which gives the NDEE director authority to issue orders to initiate cleanup at contaminated sites, to assess cleanup costs, and to pursue cost recovery for cleanup costs against a responsible party who fails or refuses to comply with the director's cleanup order. It also created an Environmental Response Cash Fund seeded by $300 thousand dollars in General Funds to initiate cleanups in circumstances when responsible parties refuse to act. Additionally, the bill amended the Nebraska Environmental Protection Act to authorize the director to issue cease and desist orders to stop practices that violate the law and pose a substantial risk of harm to the environment.

In testimony at the hearing, NDEE Director Jim Macy commented that LB 1102 provides NDEE another tool to enforce cleanup initiatives that are protective of the environment. "We've always had authority to act, and we've always had great tools in the toolbox to act, but we're an agency that always looks for better ways to more effectively and efficiently provide more focused state government for the protection of the environment," Macy said of the bill.

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.

The department's vision and mission statement are as follows:
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.

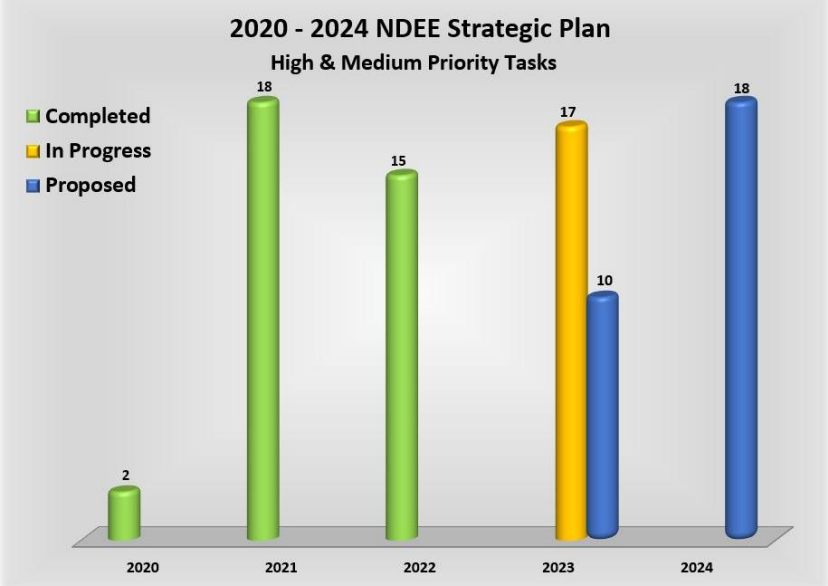
Strategic planning affects both internal and external components of NDEE functions. Internally, it addresses areas in need of improvement and helps teammates work more efficiently. It also allows teammates and team leaders to focus on the future and process improvement in addition to day-to-day tasks.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

Highlights of 2021 and 2022 Strategic Plan accomplishments include:

- Staff training and succession planning – Personnel expenses are the largest expenditure made by NDEE. The Department understands an effective leader can leverage the dollars spent on people into astounding results. This requires an investment into the leaders themselves. Last year 11 team members were enrolled in the DAS Leadership Cohort with the intent of developing the next level of the Department's leadership.

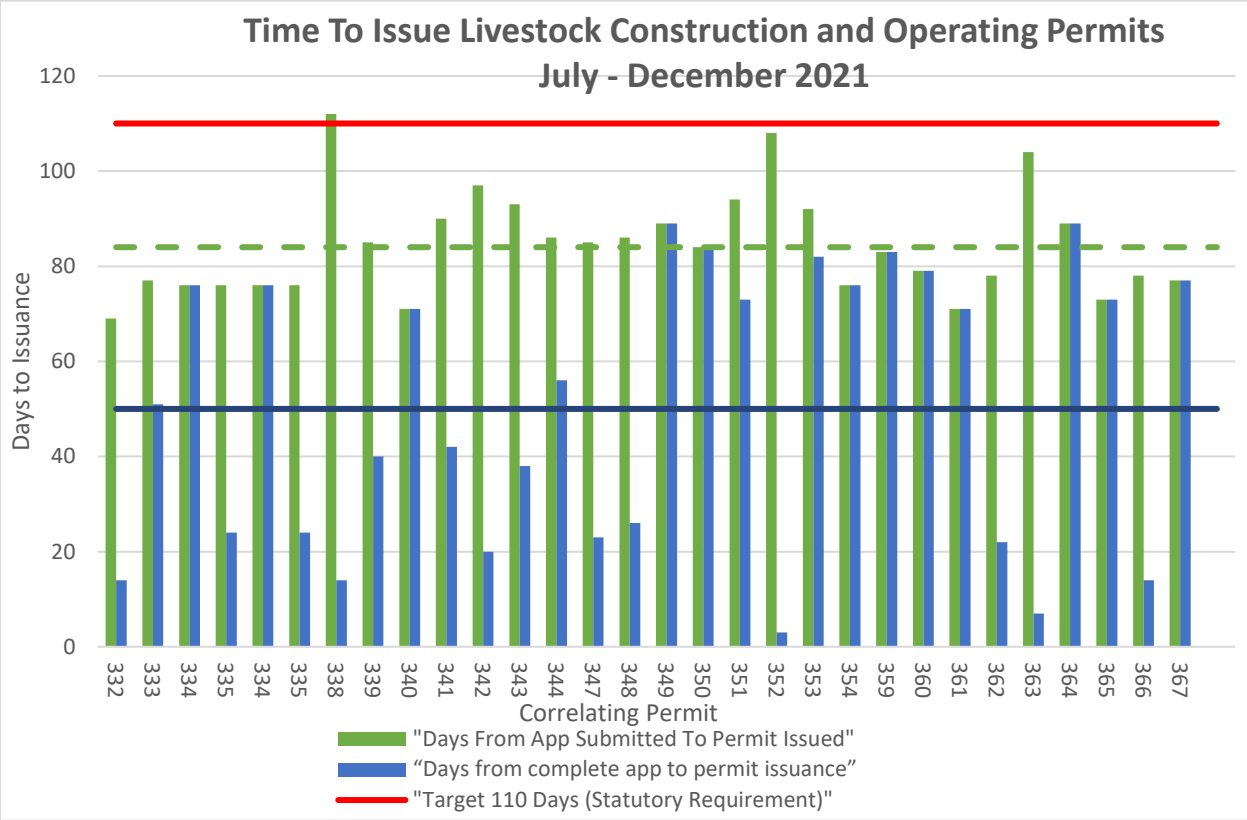
- Secure funding for the Clean Water Act 404 Program - LB809 passed which gave the EQC authority to establish fees sufficient to cover the direct and indirect costs of the program. The Department's leadership has calculated several fee scenarios and will provide this information to EQC at the appropriate time.

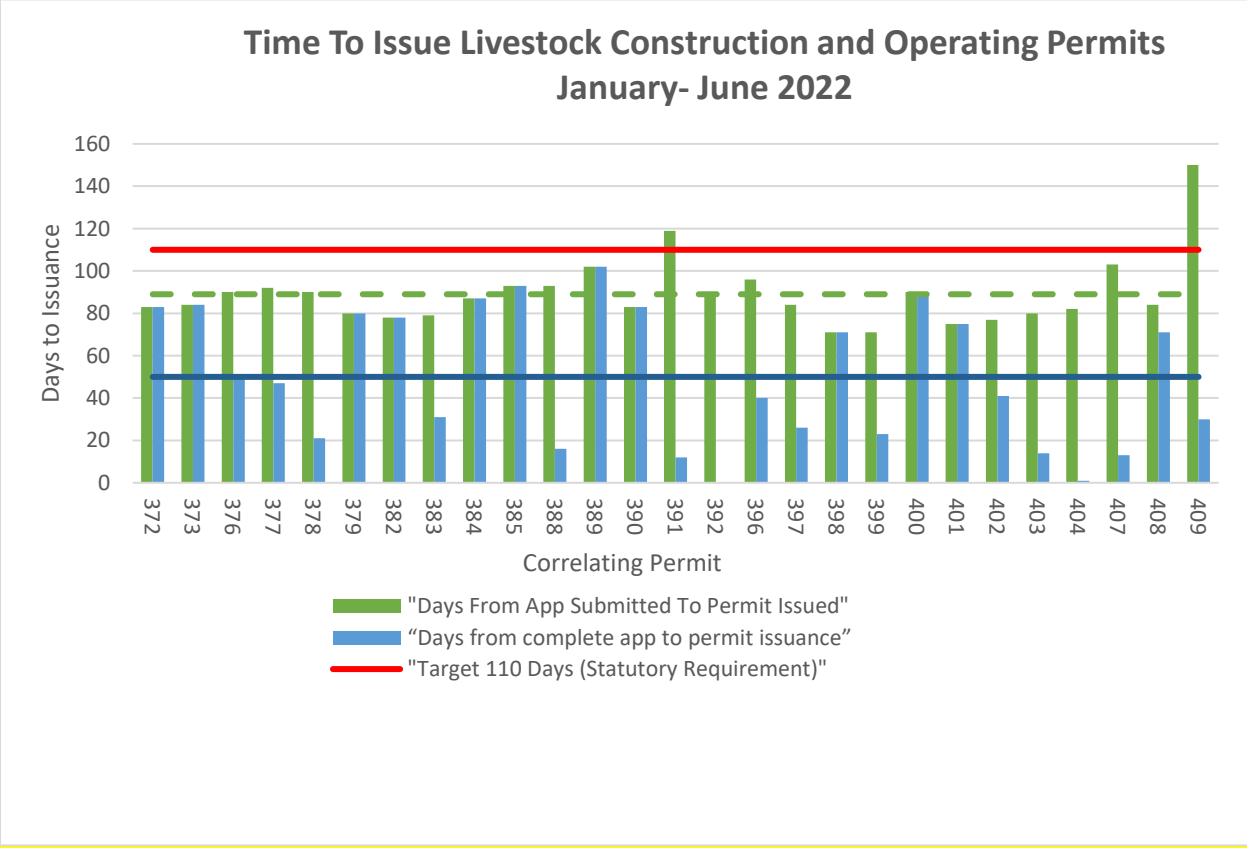
Following the strategic year 2020, the NDEE Executive team opted for a 5-year strategic plan instead of creating single year plans. The 5-year plan began on October 1, 2019 and will expire September 30, 2024. Progress is reviewed quarterly by the Executive team. A chart showing the progress of the plan is below.

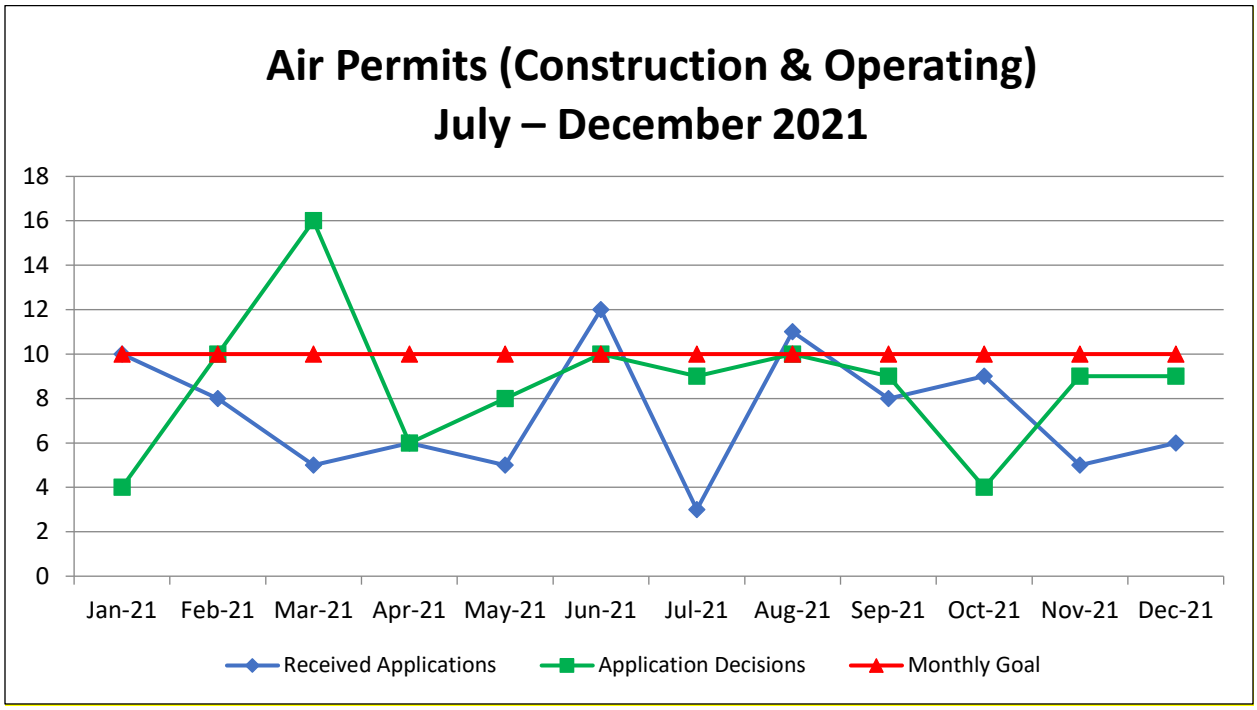


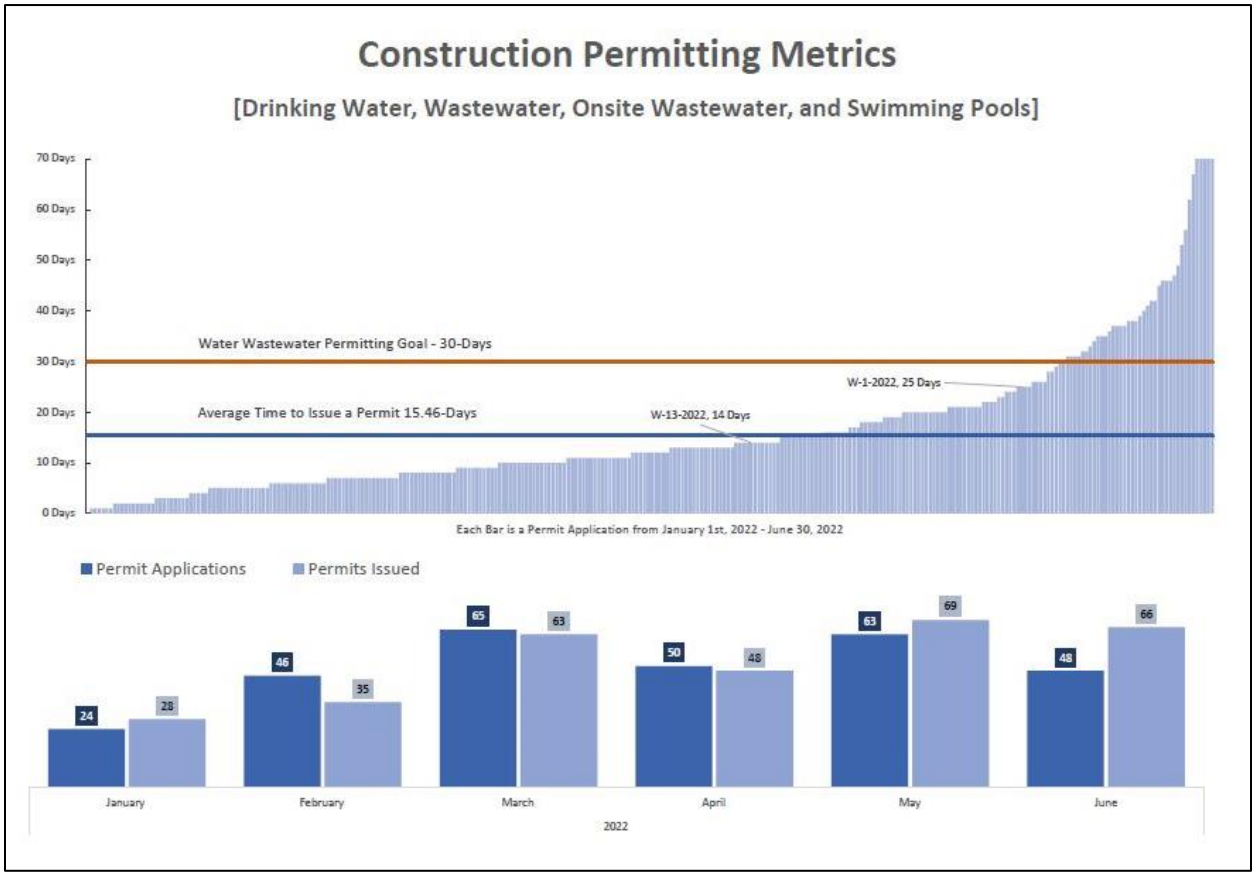
Agency Annual Statistics

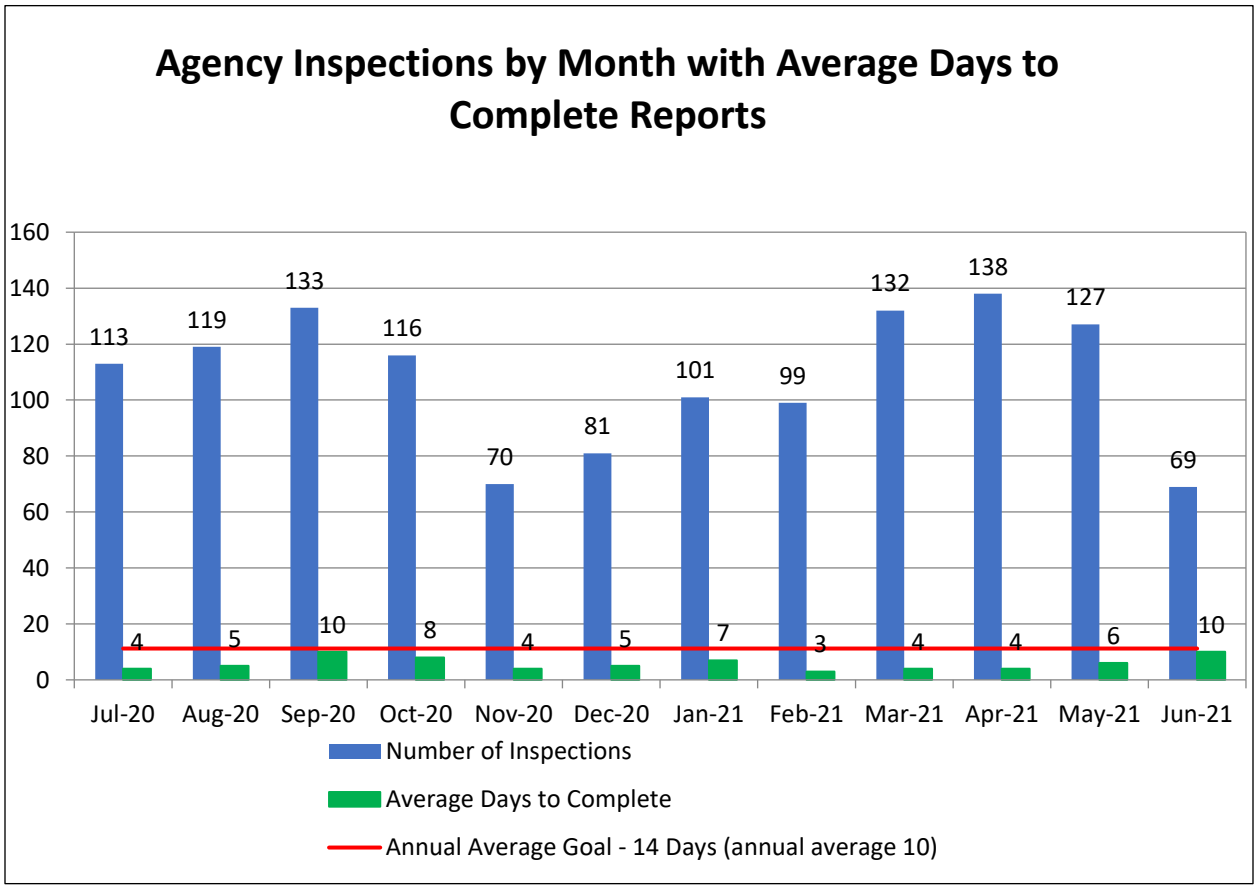
The following charts show statistics from state fiscal year 2022 (July 1, 2021 to June 30, 2022) related to State Livestock Construction and Operating Permits, Air Construction and Operating Permits and Agency Inspections. This information is updated monthly and can be found on the agency website http://dee.ne.gov by selecting the Monthly Metrics link.


Time To Issue Livestock Construction and Operating Permits
July - December 2021
Days to Issuance
120
100
80
60
40
20
0
332 333 334 335 334 335 338 339 340 341 342 343 344 347 348 349 350 351 352 353 354 359 360 361 362 363 364 365 366 367
Correlating Permit
"Days From App Submitted To Permit Issued"
"Days from complete app to permit issuance"
"Target 110 Days (Statutory Requirement)"


Time To Issue Livestock Construction and Operating Permits
January- June 2022
Days to Issuance
160
140
120
100
80
60
40
20
0
372 373 376 377 378 379 382 383 384 385 388 389 390 391 392 396 397 398 399 400 401 402 403 404 407 408 409
Correlating Permit
"Days From App Submitted To Permit Issued"
"Days from complete app to permit issuance"
"Target 110 Days (Statutory Requirement)"


Air Permits (Construction & Operating)
July – December 2021
18
16
14
12
10
8
6
4
2
0
Jan-21
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Received Applications
Application Decisions
Monthly Goal


Construction Permitting Metrics
[Drinking Water, Wastewater, Onsite Wastewater, and Swimming Pools]
70 Days
60 Days
50 Days
40 Days
30 Days
20 Days
10 Days
0 Days
Water Wastewater Permitting Goal - 30-Days
Average Time to Issue a Permit 15.46-Days
W-13-2022, 14 Days
W-1-2022, 25 Days
Each Bar is a Permit Application from January 1st, 2022 - June 30, 2022
Permit Applications
Permits Issued
24
28
46
35
65
63
50
48
63
69
48
66
January
February
March
April
May
June
2022



2022 Legislative Summary

The Nebraska Legislature enacted three legislative bills in 2022 that had direct impact on NDEE.

LB 809: This legislation contains provisions of four bills. As introduced, LB 809 amended the Drinking Water State Revolving Fund to allow the fund to buy or refinance debt obligation if the debt was incurred and construction began after July 1, 1993; and give the department the authority to (1) provide grants, in addition to loan forgiveness for up to 75% of the eligible project cost; (2) enter into agreements to provide grants and loan forgiveness, for up to 75% of eligible project cost, concurrent with loans to public water systems for lead service line replacement projects in accordance with all federal regulatory and statutory provisions; and (3) provide loan forgiveness, in addition to grants to municipalities of 10,000 or less population and may authorize grants of up to 75% of eligible project cost. Provisions of LBs 924, 978 and 803 were also amended into the bill. LB 924 amended the Waste Reduction and Recycling Incentive Act to allow cities of the first class to be eligible to participate in grants for the deconstruction of abandoned buildings. LB 978 amended the Nebraska Environmental Protection Act to provide additional authorities and take the next steps for the State to administer the federal dredge and fill permit program (CWA Section 404 permit program). LB 803 redefines immediate family for purposes of obtaining limited permits for deer, antelope, wild turkey, or elk.

LB 1014e: This bill appropriated State of Nebraska funds received as a result of federal American Rescue Plan Act of 2021. Specifically, the Department was allocated funds to provide grants for three purposes: 1) $4 million as aid for reverse osmosis treatment systems to remove nitrates from drinking water for small community water systems and property owners with private drinking water wells; 2) $20 million for wastewater and drainage system updates at the Nebraska state fairgrounds; and 3) $6 million to provide grant assistance for rural public water systems that supply drinking water to at least four communities that receive drinking water from a surface water source.

LB 1102: Creates the Nebraska Environmental Response Act and establishes a fund to clean up contaminated sites where a responsible party fails or refuses to act. The Legislature appropriated $300 thousand in general funds to seed the Nebraska Environmental Response Cash Fund. The Act gives the director additional authority to issue orders to undertake a cleanup of a release, and to assess costs of cleanup and pursue cost recovery for cleanup costs and administrative penalties in situations where the state steps in to remediate. The bill establishes an environmental lien which may be placed on the property owned by a responsible party and subject to the cleanup to aid the state in recovering its remediation costs. LB 1102 also amends the Nebraska Environmental Protection Act to (1) authorize the director to issue cease and desist orders that take effect immediately to stop an act or practice that presents substantial harm to the environment or to take action to come into compliance with environmental laws; and 2) to better align the State's authority consistent with the federal government's authority under the Resource Conservation and Recovery Act (RCRA) 7003.

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, 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 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:

- Supporting enforcement case development and return to compliance;
- 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;
- Assisting review and development of proposed legislation, rules and regulations;
- 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 as requested; and
- Representing the Director and Agency as requested by the Director.

The Legal Division works cooperatively with the Attorney General, Secretary of State, Legislature, Governor's Policy Research Office, and other state and federal agencies 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 regard 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 professional development and streamlining processes in the last year.

Major accomplishments during fiscal year 2022:

- Development and testing of 19 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 and Environmental Safety 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 and obligated funds to executive leaders for use with reinvestments back into the agency for strategic planning.

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.

Human Resources has a Training Coordinator which is responsible for analyzing training needs, developing curriculum and consults with the managers and supervisors of the agency to

assess training needs and develop programs to match these needs. The coordinator continually evaluates procedures to monitor and analyze course effectiveness and updates the curriculum as needed.

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. The agency recently implemented a revised remote work policy to help retain and attract new talent.

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

The following charts comparatively show staffing activity for FYs 2021 and 2022. With historically low unemployment, the agency has been very fortunate to have the opportunity to hire and promote 69 of the best and brightest new employees during this fiscal year timeframe. The agency continues to anticipate a large number of retirements over the next few of years, as the baby boomer generation has reached retirement age. We have been actively developing redundancy in positions (succession planning) to avoid a significant loss of agency knowledge and expertise.

July 1, 2020, through June 30, 2021	
New Hires	25
Retirements	17
Terminations	11
Transfers	4
Promotions	24

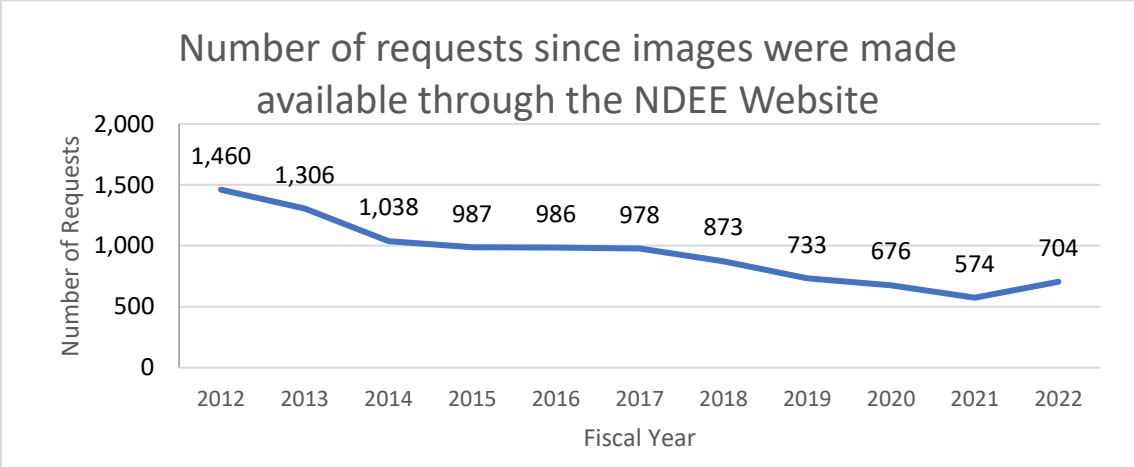
July 1, 2021, through June 30, 2022	
New Hires	32
Retirements	9
Terminations	18
Transfers	8
Promotions	29

Records Management

The Records Management Section is responsible for managing the agency's paper and electronic records, centralized mail handling process, and requests for public information. Section employees also furnish support functions to agency programs.

In FY2022:

- Over 144,000 records were stored in the Enterprise Content Management System (ECM) utilizing OnBase software applications from Hyland Software.
- More than 36,000 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 704 requests for information. The number of information requests rose in the last fiscal year due to the statutory transfer of the Department of Health and Human Services Environmental Health Programs in July 2021. Complete records for those programs are not yet available through the NDEE website.



- In response to public requests, the Records Team imaged over 330 legacy paper files into the ECM.

The Records Management Section also coordinates building and implementation of solutions in the ECM.

- An online credentialing solution was released in May 2022. Water and wastewater operators, water well professionals and swimming pool operators apply for and manage their credentials and credential requirements through the agency website. User can view existing credentials and continuing education (CE) credits (if applicable), add new CEs and update personal information.

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) server, web page support, and IIS application development.

The IT Section added two staff members to fill the vacancy for an IT Business Systems Analyst position and the vacancy for an Applications Developer position.

NDEE web developers have been maintaining and making updates to the agency web page. The agency is working towards having a new web page developed for us in 2024.

The application development staff has developing multiple interfaces to provide overall process improvement for the public and for the Agency staff.

The Office of the Chief Information Officer (OCIO) has assigned one OCIO support staff to the Fallbrook Blvd building for PC hardware and software support. This will help the IT staff focus and be more efficient in accomplishing other work that is not PC support. The OCIO support staff has also spent a large portion of the year installing replacement desktops and laptops throughout the Agency as a part of the Hardware Leasing program.

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 NDEE.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.

As part of the FY2021 reorganization, the PIO team provided support for the agency's legislative activities, in addition to the small business and environment assistance program. You can review the Department's legislative summary in Chapter 1 and find discussion of the Department's assistance activities in Chapter 4.

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.

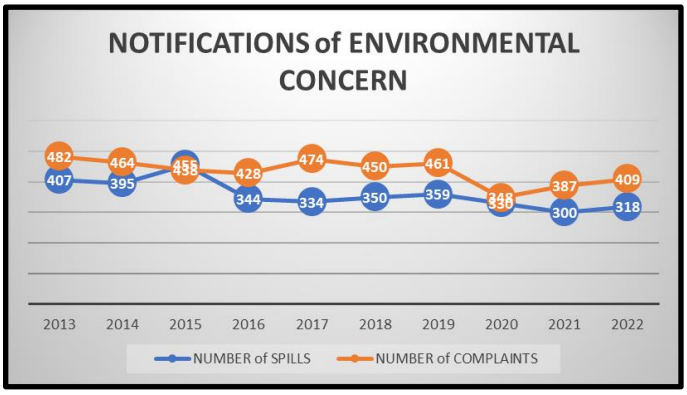
The Emergency Response Program Coordinator is responsible for training, equipping, and coordinating staff who, in addition to their responsibilities to other programs, provide initial documentation, assistance and response to spills. These individuals have the responsibility to maintain an emergency 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 program successfully added two new members in FY 2021 to supplement the team. Air monitoring equipment, used for assessment and safety, have been upgraded and replaced. The program has begun the replacement of aging respiratory protection equipment (SCBAs and respirators).

In June (2022) NDEE trained partner agencies (State Fire Marshal and State Patrol) in the use of software (CAMEO, MARPLOT, ALOHA) available to assist first responders. Additional training included the NDEE method for orphan (55-gallon) drum assessment and recovery, mercury vapor assessment and identification of unknown chemicals.

The NDEE recorded 318 reports of spills in FY 2022 (July 2021 – June 2022). Of the spills, 251 involved petroleum. An additional 409 citizen complaints were recorded by NDEE in FY2022. The number of recorded spills and complaints recorded in the past ten years are depicted in the graph to the right,



Continuity of Operations

The Department has the responsibility to continue operations in the aftermath of any disaster that adversely affects its facilities and resources. A revised *Continuity of Operations Plan* describes how Department of Environment and Energy (NDEE) will react, respond, and recover from an incident or disaster that causes a disruption of the agency's essential functions. It is anticipated to be completed by December 2022. All NDEE staff will be trained on the expectations and the Department will exercise the plan in 2023.

Quality Assurance

The EPA has requirements for conducting quality management activities for all environmental data to ensure that 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 that the samples participants collect and analyze, the data they store and manage, and the reports they write are of high quality. The *Quality Management Plan* is the framework for Quality Assurance Project Plans (QAPPs) which are written to outline these procedures. Management Assistance Division staff help coordinate the review of QAPPs by appropriate personnel throughout the Department.

This year, the agency's *Quality Management Plan*, was revised to reflect recent statutory changes in the NDEE organization and additional duties and responsibilities. The new plan will be reviewed by both the agency and the USEPA Region 7. It is anticipated to be completed in the Fall of 2022.

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 FY21-22.

Council Members

Representing	Council member	Term expires
Agricultural Crop Production	Kevin Peterson Osceola	June 22, 2025
Ag Processing Industry	Douglas Anderson Aurora	June 22, 2023
Automotive/Petroleum Industry	Vacant	June 22, 2025
Biologist	Amy Staples Broken Bow	June 22, 2025
Chemical Industry	Seth Harder Plainview	June 22, 2023
City Government	Marty Stange Hastings	June 22, 2023
Conservation	Norris Marshall Kearney	June 22, 2023
County Government	Vacant	June 22, 2023
Food Products Manufacturing	Jessica Kolterman Seward	June 22, 2025
Heavy Industry	Kurt Bogner Norfolk	June 22, 2023
Labor	Robert Hall Wahoo	June 22, 2025
Livestock Industry	Alden Zuhlke Plainview	June 22, 2025
Minority Populations	Tassia Steidley Lincoln	June 22, 2025
Municipal Government	Lance Hedquist South Sioux City	June 22, 2025
Physician	Vacant	June 22, 2023
Power Generating Industry	Joseph Citta, Jr. Columbus	June 22, 2025
Professional Engineer	Dennis Grams Lincoln	June 22, 2023

Environmental Quality Council Actions
July 1, 2021 to June 30, 2022

Council Meeting Date	Regulation	Action
November 16, 2021	Resolution to Increase Borrowing Authority for the Wastewater Treatment Facilities construction Loan Fund (Clean Water State Revolving Fund)	Approved
	Resolution to Increase Borrowing Authority for the Drinking Water State Revolving Fund	Approved
	Public Hearing on 2021 Litter Percent Allocations	Approved
	Public Hearing on amendments to Title 124	Approved
	Public Hearing on Amendments to the 2022 Intended Use Plan and Project Priority List for Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF)	Approved
March 30, 2022	Public Hearing on amendments to Title 129	Approved
June 15, 2022	Public Hearing on 2023 Intended Use Plan and Project Priority List for Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF)	Approved

CHAPTER 4:
Air Quality Programs

The objective of the Air Quality Programs 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 Programs work 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).

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

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 Programs consist of Air Permitting, which issues construction permits, operating permits, and performs air dispersion modeling; and Air Compliance, which compiles emission inventories, and conducts inspections and other compliance and enforcement activities. The Remediation and Monitoring Division maintains an ambient air quality network and evaluates stack tests. In addition, Air Planning staff work 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.

Air Permitting

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 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. Currently, there are approximately 1,207 facilities that have received a construction permit and/or an operating permit.

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. Some sources will require a construction permit but may not require an operating permit.

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.

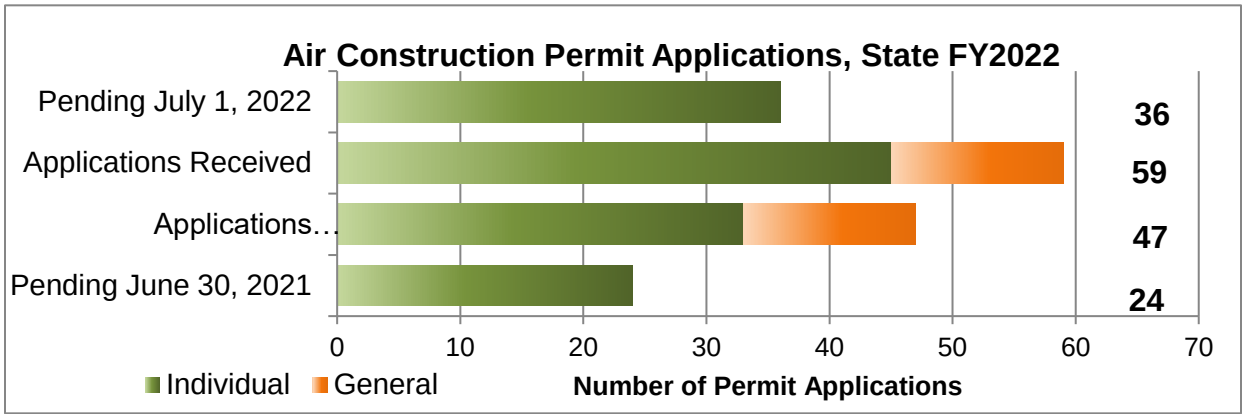
A permit-by-rule and a general permit are similar in that the rule or general permit has the same requirements for, and covers, all sources in a particular industrial category, provided that the source meets the applicability criteria and applies for and obtains coverage. The requirements for a permit-by-rule 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 2022 state fiscal year. (Note: The *Processed* category includes permits issued, withdrawn, denied, and determinations of no permit required.)

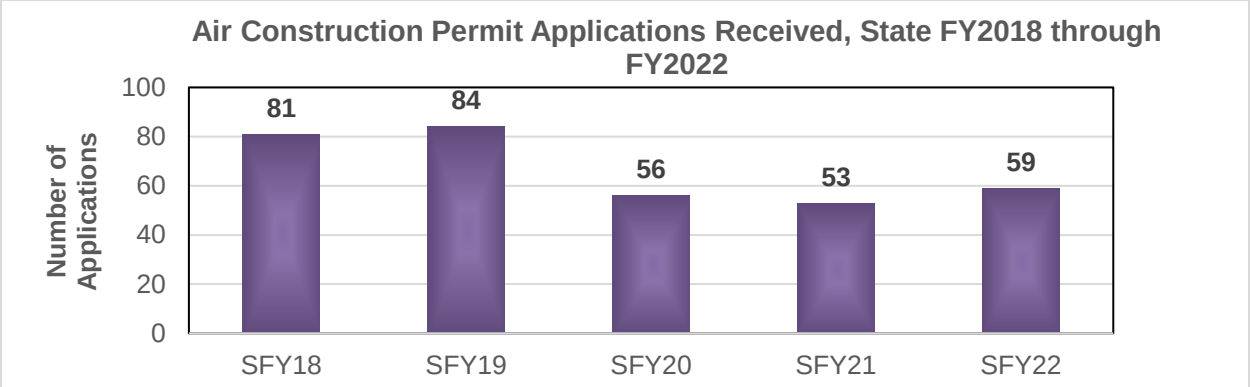


Nebraska's program also implements the federal construction permit program, called Prevention of Significant Deterioration (PSD). The PSD program applies to construction of new major sources or major modifications to existing sources that emit significant levels of certain types of pollutants. The purpose 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, Air Program 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.

The PSD program 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 FY2018 through FY2022.



Air Dispersion Modeling

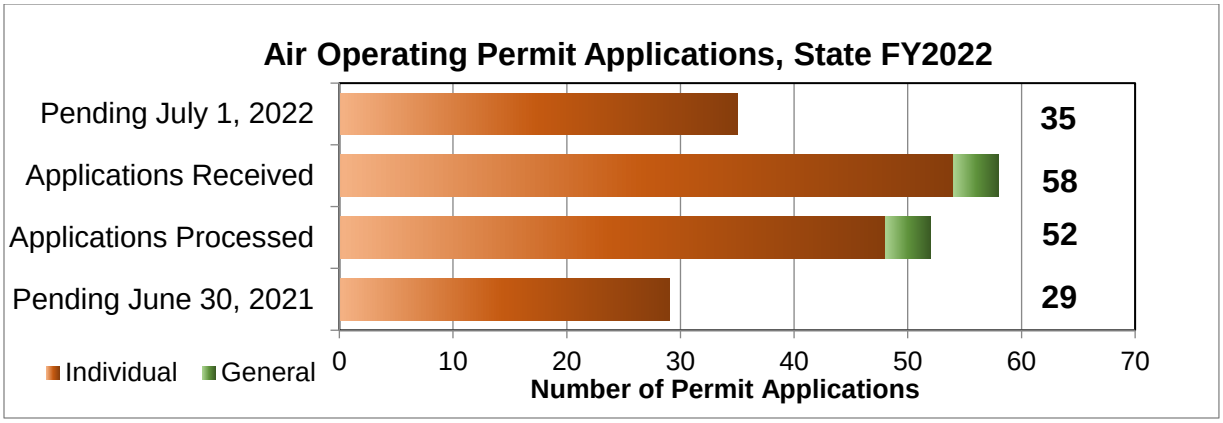
Air dispersion computer models predict how air pollutants emitted by a facility spread and disperse. These regulatory models use expected emissions, meteorological and geographical data, and other factors to estimate ground level concentrations of air pollutants at a large array of locations outside 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 Program'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

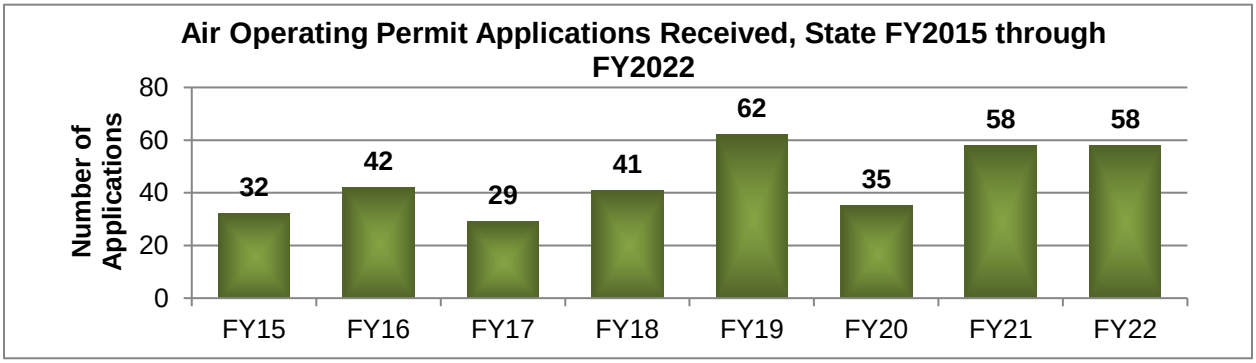
As required by Title V of the Federal Clean Air Act Amendments of 1990, Nebraska issues operating permits for Class I (major) sources of certain air pollutants. The Department also regulates minor sources using Class II operating permits as required under Nebraska law. Application for an operating permit 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 2022 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. The general operating permit coverages issued in FY2022 were for new applicants requesting coverage for small incinerators. (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 Class I (Title V) source must document five years of actual emissions at or below the minor source (Class II) 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 101 active sources to opt out of their Class I (Title V) 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 FY2015 through FY2022 (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 Team 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 Programs have documented similar savings in staff time to process the renewal.

Each construction and operating permit include a fact sheet, which provides a technical description of the facility, applicable regulatory requirements, and a statement of basis for each permit condition. Air Program 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 FY2022 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 85 days (including online-only general construction permit coverage) at the end of FY2022. The operating permit application backlog was also significantly improved down from approximately 120 applications a few years ago to 35 applications pending at the end of FY2022, 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 when they apply for permit renewal.

The Air Quality Permitting Programs have consistently had a significant amount of staff turnover, leading to recurring discussions about permit decisions, regulations and other challenges. The Air Program staff 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 Program Staff. In addition, the Air Program revamped new employee onboarding procedures. These are two examples of the significant efforts to help improve staff training and permitting consistency. This tool allows Air Program 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.

During the last half of FY2021 the Air Program began drafting six White Papers to help sources to understand different aspects of the air program and how it applies to them. The draft white papers were submitted for public review during FY2022 and are in final stages of completion. When the white papers are completed, they will be placed in the Air Program's Compendium Public Section for reference. The Titles of the White Papers are:

Blanket Emissions Limits – *When are they allowed*?
Continuous Emissions Monitoring Systems (CEMS) vs Performance Testing
Major, Minor, and Synthetic Minor Sources – *Foundation Station*
Wet Scrubber Operational Parameter Monitoring and Variability at Ethanol Plants
Air Quality Permit Limits and Enforceability – *Then and Now*
Potential to Emit (PTE) – *What it means for me?*

Air Compliance

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 (PM_{10})
  - With a diameter of 2.5 micrometers or less ($PM_{2.5}$)
- Sulfur Dioxide (SO_2)
- Nitrogen Dioxide (NO_2)
- Carbon Monoxide (CO)
- Ozone (O_3)
- 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. The Nebraska network also 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.

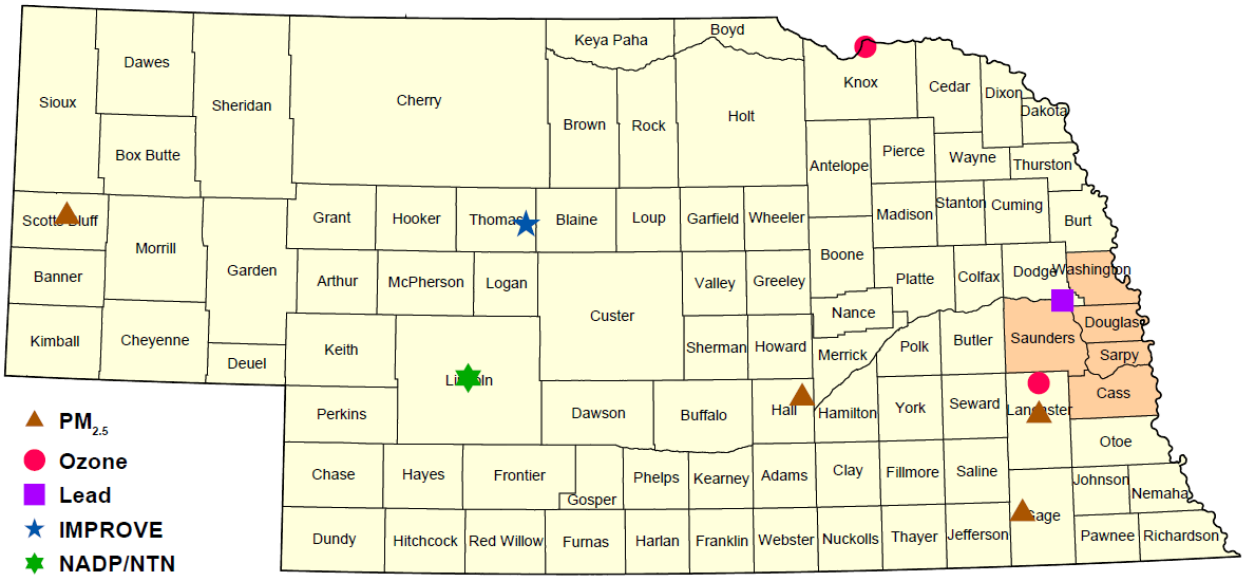
Most of the sites in the monitoring network evaluate pollutants for which standards are established *(i.e.*, $PM_{2.5}$, PM_{10}, CO, SO_2, Lead, or Ozone). Some sites monitor for more than one pollutant. The NCore site in Omaha is part of a National Core Network that monitors for nine pollutant parameters. 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



$PM_{2.5}$
Lincoln (Lancaster County)
Grand Island (Hall County)
Scottsbluff (Scotts Bluff County)
Beatrice (Gage County)

Ozone
Davey (Lancaster County)
Santee (Knox County)

Lead
Fremont (Dodge County)

IMPROVE
Nebraska National Forest (Thomas County)

NADP/NTN
Maxwell (Lincoln County)

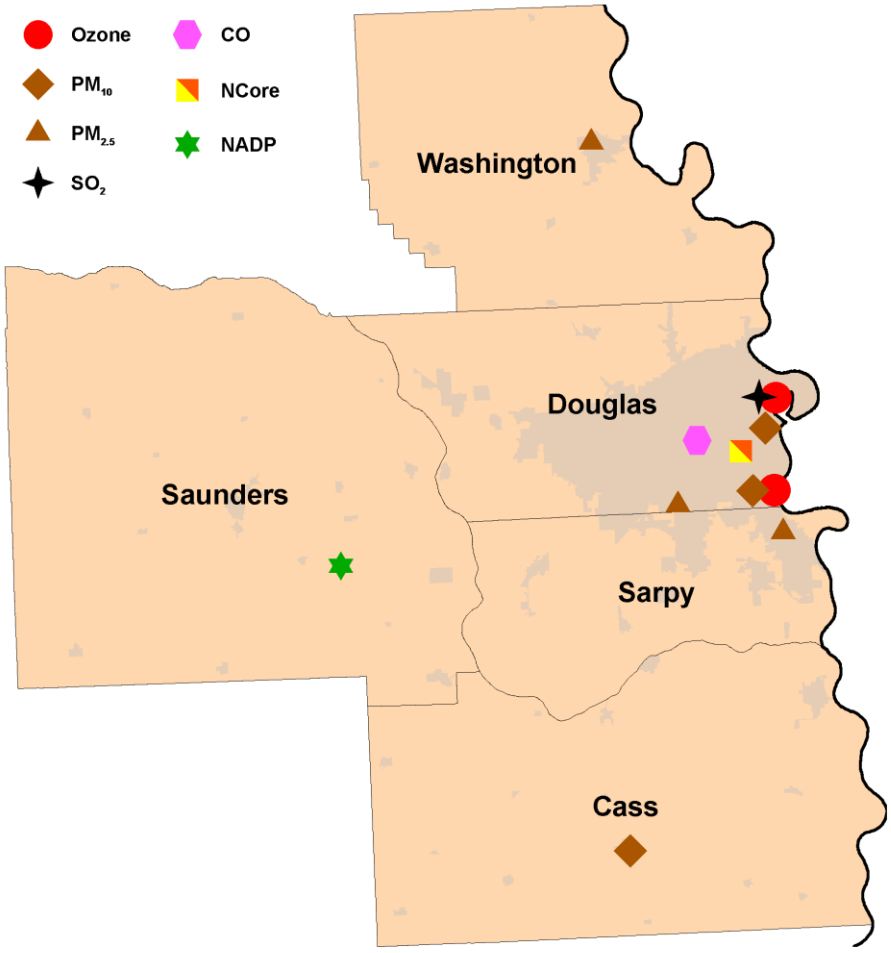
The Nebraska counties in the Omaha-Council Bluffs Metropolitan Statistical Area are indicated by orange shading.

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). Four of these sites are operated by the Department, either directly or under contract. The two 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 PM_{10} 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

PM_{10}
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

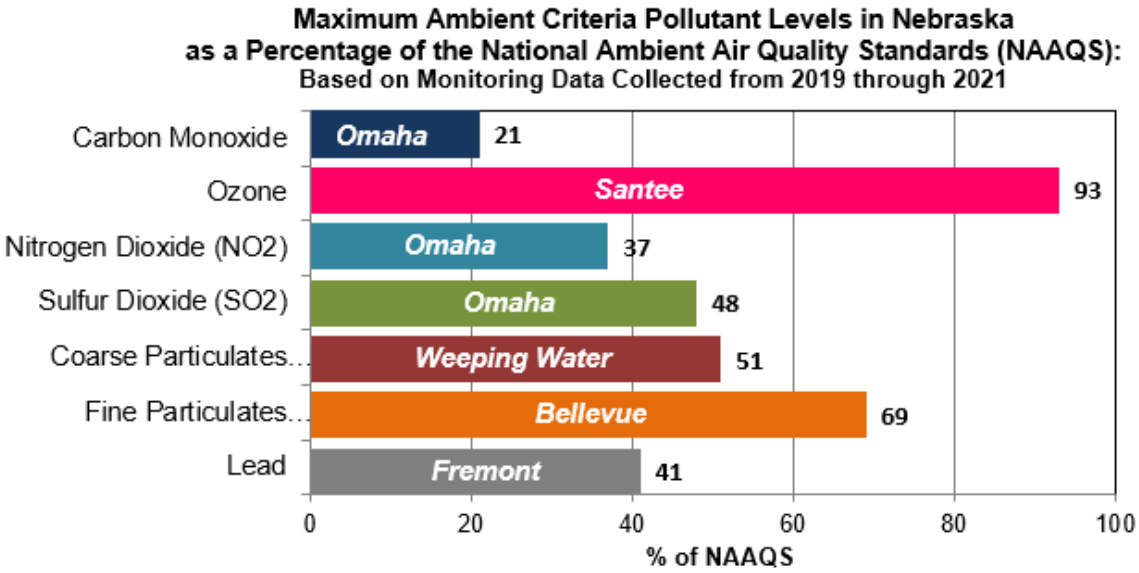
Sulfur Dioxide (SO_2)
Omaha, 4102 Woolworth Avenue
(NCore Trace Monitor)
Omaha, 1616 Whitmore Street

Monitoring Information Online

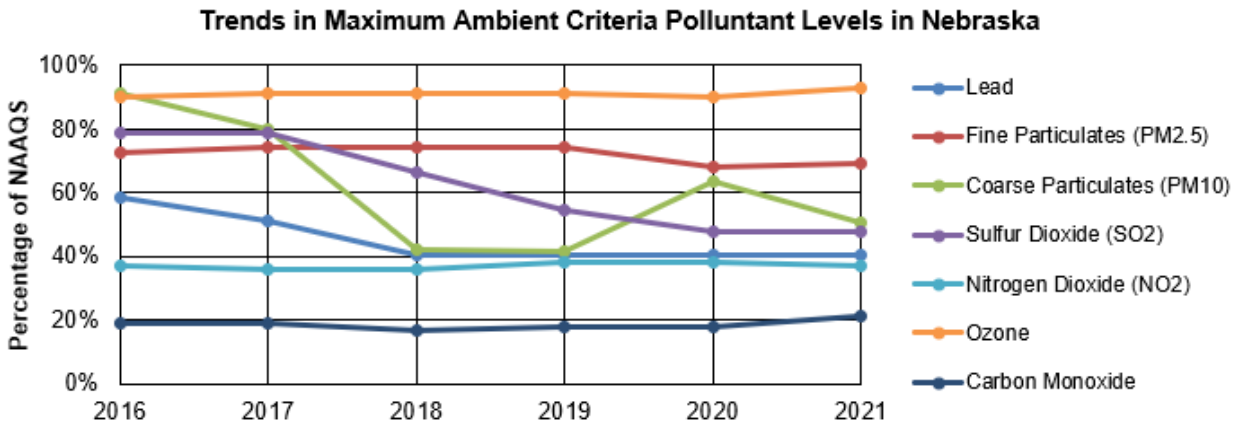
Data from continuous ozone and $PM_{2.5}$ monitors in Lincoln, Omaha, Grand Island, Homestead National Historical Park, and Scottsbluff are reported hourly to the EPA AirNow system, which makes current air quality information available to the public on the web at http://www.airnow.gov. EPA uses the data 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.

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%.



EPA issued final designations of "Attainment/Unclassifiable" with respect to the NAAQS for sulfur dioxide for two Nebraska counties in 2021: Douglas County in April and Lancaster County in August. 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 2017-2020, which demonstrate that sulfur dioxide levels at these locations are in attainment/compliance with the NAAQS. EPA had previously designated all other Nebraska counties as "Attainment/Unclassifiable" with respect to the SO_2 NAAQS.



The chart above shows trends in the maximum measured levels of criteria pollutants in Nebraska from 2016 through 2021. 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). 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. Levels for ozone, NO_2, CO, and $PM_{2.5}$ have remained fairly constant or have declined slightly since 2016, while the maximum SO_2 level has decreased significantly since 2017. The level and location of the maximum PM_{10} readings have fluctuated widely during this period.

The Department 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 Department 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 Program 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.

This table lists the compliance activities conducted by the Department during the year.

FY 2022 Compliance Activity	NDEE
On-site Inspections	188
Facility Stack Tests Conducted On-site Observations Conducted	78 41
Continuous Emission Monitoring Audits Conducted On-site Observations Conducted	35 11
Complaints Received	70
Burn Permits Issued Burn Permits Denied Burn Permits Withdrawn	105 36 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 2021, 2022, and 2023. 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 2021 was $50 per ton, the same rate that was set for the 2019 calendar year.

The Department transitioned to a new online reporting system called State and Local Emissions Inventory System (SLEIS) for the 2019 calendar year. During the 2020 reporting period there were still many lower emitting sources reporting to the new system for the first time. Training sessions for those new to the system were conducted throughout 2020 and have continued into the current year.

Planning for Air Quality Issues in Nebraska

EPA periodically reviews the National Ambient Air Quality Standards (NAAQS) using the most current scientific information available and revises or retains the standards as appropriate. When a new or revised 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 for areas within the state in addition to State Implementation Plans (SIPs) for each new or revised standard. A SIP describes how the Department will implement, maintain, and enforce a standard.

At the present time, Nebraska is in attainment with each of the NAAQS. Planning activities are currently underway to address state Air Quality regulations (Title 129), Regional Haze and the Municipal Solid Waste Landfill Rule.

Sulfur dioxide (SO_2)

The 2010 sulfur dioxide (SO_2) 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 characterization of the air quality near sources that emit 2,000 tons per year or more of SO_2. 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 designated by EPA as "Unclassifiable/Attainment" in 2016. The area surrounding Whelan Energy Center was designated as "Attainment/Unclassifiable" in 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 designated as "Attainment/Unclassifiable" in April 2021 and August 2021, respectively.

The DRR requires annual reporting (termed "ongoing requirements") for areas characterized by modeling, and this year's report was submitted as part of the Nebraska 2022 Ambient Air Monitoring Network Plan in July 2022. Two facilities are subject to these ongoing requirements: Whelan Energy Center and Gerald Gentleman Station, though another facility (Nebraska City Station) was addressed in this year's report due to a decrease in emissions. Facility emissions data indicate that all areas in Nebraska continue to demonstrate attainment with the federal standard. In April 2019, EPA retained the current primary (health-based) SO_2 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" and approved Nebraska's SIP revision for ozone in April 2020. In December 2020, following a review of the standard, EPA retained the current NAAQS; in October 2021 EPA announced that it would reconsider the previous administration's retention decision and set a target date at the end of 2023 for completion.

Particulate Matter

In December 2020, EPA issued its final rule to retain the current NAAQS for particulate matter (PM), including both fine particles ($PM_{2.5}$) and coarse particles (PM_{10}), following periodic review. In June 2021, EPA announced that it will reconsider the 2020 final rule based on evidence that current standards may not be adequate. This review is underway, and a rule is anticipated in late 2022.

Regional Haze

Regional Haze refers to impaired visibility at national parks and wilderness areas caused by particulates in the atmosphere. EPA issued the Regional Haze Rule in 1999 to improve visibility in these areas, requiring 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 SIPs. In addition, guidance and technical support documents were provided to assist states in preparing 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. EPA issued a Federal Implementation Plan (FIP) that relies on the

Cross-State Air Pollution Rule (CSAPR) to satisfy BART for sulfur dioxide at Gerald Gentleman Station. The remaining disapproved portion (long-term strategy) will be addressed in the forthcoming SIP revision. This source participates in the CSAPR trading program, which allots each source an emissions budget for SO_2 and permits trading of allotments. To date, no additional control measures have been required.

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

Municipal Solid Waste Landfill Plan

On May 21, 2021, EPA finalized the federal implementation plan for municipal solid waste landfills (MSWL). The plan supports the following federal rule located at 40 CFR Part 60 Subpart Cf: Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. The emission guidelines apply to landfills that were constructed prior to July 17, 2014, and accepted waste after November 8, 1987. This new emission guideline lowers the threshold for which facilities must install gas collection and control equipment from 50 Mg/yr to 34 Mg/yr of nonmethane organic compounds (NMOCs). NDEE is working with EPA on implementation of the federal plan while the agency develops a state implementation plan. NDEE finished an initial draft of the Municipal Solid Waste Landfill Plan in 2022.

Air Toxics Program

EPA currently lists 188 substances as hazardous air pollutants, or air toxics, which are air pollutants known to cause cancer and other serious health impacts. On January 5, 2022, EPA finalized a rule to add 1-bromopropane to the Clean Air Act's list of hazardous air pollutants. The Department 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, and forms.

Smoke Awareness Program

The impact of prescribed fires and wildfires on Nebraska's air quality continues to receive increased attention. In early to mid-spring, ranchers and land managers burn an average of 2 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 may 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, with the number of incidents and acres burned due to human- and lightning-caused fires increasing dramatically in 2021. This trend appears to be continuing, with acres burned to

date in 2022 exceeding 140,000 acres, primarily due to wildfires in the late winter, spring, and early summer.

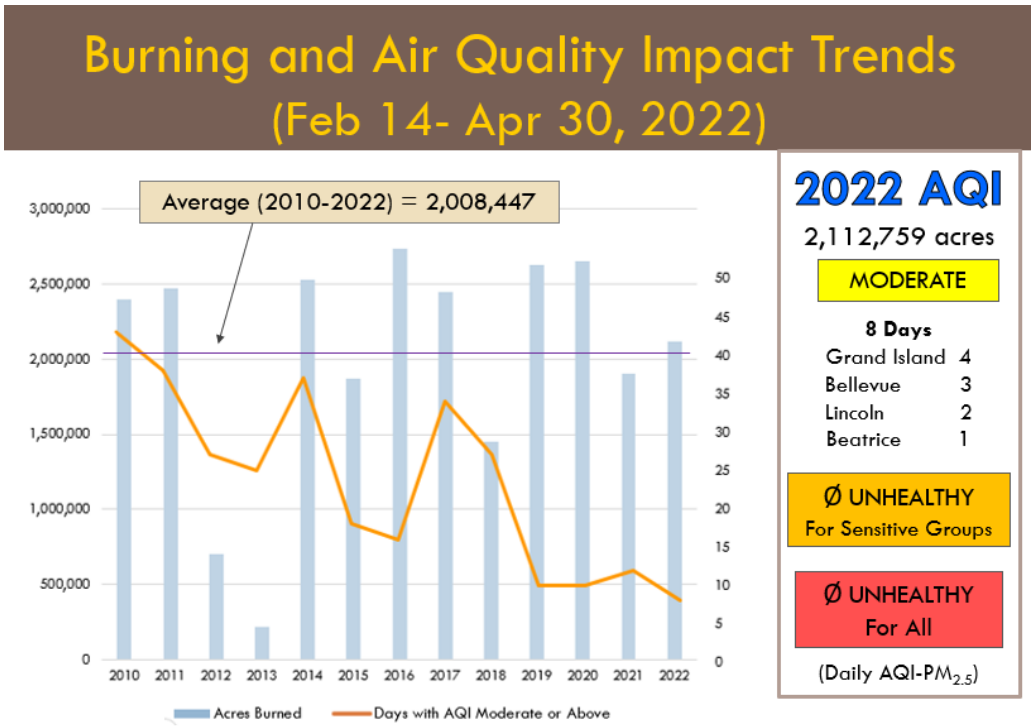
Impacts on air quality in Nebraska from wildfires continue to draw more interest due to severe wildfire seasons and drought conditions in Nebraska, western states, and Canada over the past few years. Air quality impacts that persist over several days due to heavy smoke from these fires are becoming more common and often impact large areas of the United States.

The Department continued its collaborative efforts with key stakeholder agencies in state FY2022, which included pre- and post-season virtual meetings in February and June 2022, respectively. Participants included local health Departments, EPA, the Nebraska Game and Parks Commission, University of Nebraska Agronomy-Horticulture program researchers, National Weather Service, state air agencies from a five-state region (Iowa DNR, Missouri DNR, Kansas Department of Health and Environment, and Oklahoma DEQ), 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.

Tasks performed by NDEE staff during the 2022 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
- Coordinating Air Quality Advisories with the Nebraska Department of Health and Human Services (DHHS)
- Providing email updates to stakeholders on air quality conditions and wildfire conditions
- Interpreting and deploying National Weather Service software technologies.

Agency staff coordinate and consult with other stakeholder agencies on days when heavy burning and smoke impacts are predicted. If a health advisory is warranted, NDEE 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 2022 for March 27-29, April 4-5, April 8-9, and April 11-12.



During the 2022 burn season, Nebraska experienced a total of eight days with an Air Quality Index (AQI) for fine particulates ($PM_{2.5}$) in the *Moderate* range (11% of days) as noted in the chart above, and four days with an AQI for ozone in the *Moderate* range. These occurrences were down from 2021 (*Moderate* AQI on 12 days for particulates, and six days for ozone). For comparison, in 2021 Nebraska experienced daily AQI levels in the *Moderate* category for $PM_{2.5}$ on about 28% of days outside of the burn season. The *Moderate* range is characterized by pollutant levels at or above the National Ambient Air Quality Standards for a 24-hour period; these levels 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 that may induce health effects in those who are sensitive as opposed to unusually sensitive to air pollution.

There were no days during the 2022 burn season in which the daily AQI values in Nebraska were in the *Unhealthy for Sensitive Groups* or *Unhealthy for All* category; burn seasons in previous years (2010-2020) have averaged about one day per year in the *Unhealthy for Sensitive Groups* category.

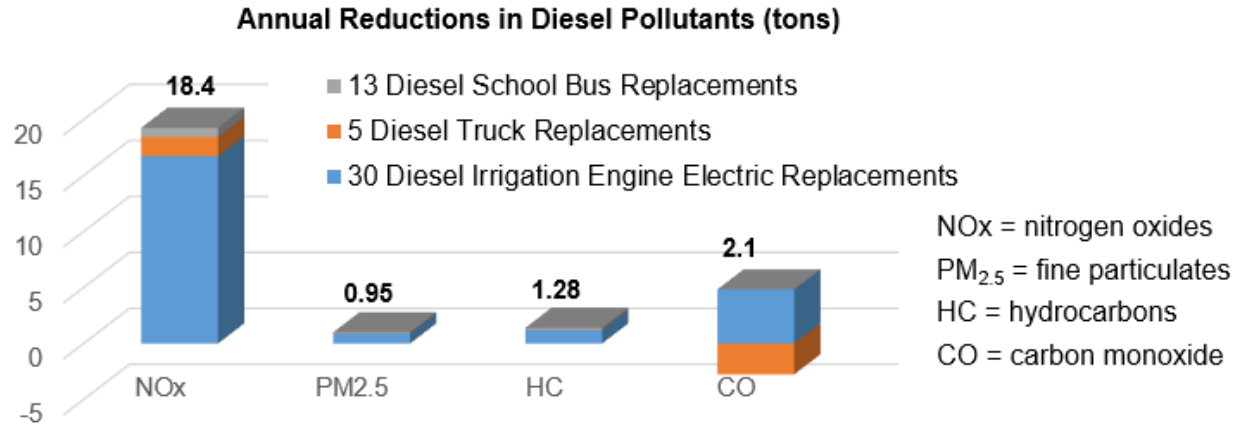
Department activities conducted with other agencies in 2022 resulted in timely health advisories and notification to the public of potential air quality impacts from prescribed burning. Predictions of potential impacts, while cautious, were fairly accurate. The flow of information between stakeholders and agencies continues to improve, and a standardized process for dissemination of advisories is in place. NDEE is pursuing additional means of notification in coordination with the National Weather Service that may be available for use in 2022.

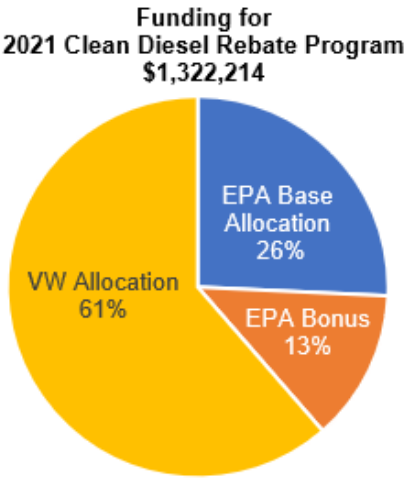
It should be noted that while both prescribed burning and wildfires affect localized air quality, Nebraska remains one of the few states to comply with all federally established National Ambient Air Quality Standards.

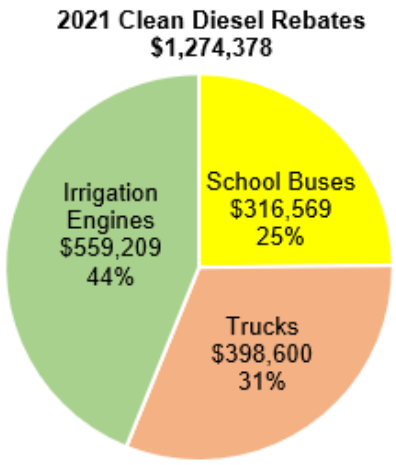
Nebraska Clean Diesel Rebate Program

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 2021, NDEE has awarded or expects to award $1,274,378 in rebates to 46 projects. The three types of projects funded are school bus replacements (13 buses), diesel refuse truck replacements (five trucks), and all-electric replacements of 30 diesel irrigation engines. The school bus and diesel truck replacement rebates reimburse 25% of the cost of a new diesel vehicle or 35% for a propane or compressed natural gas (CNG) vehicle meeting emission standards for nitrogen oxides that are stricter than the current EPA standard. Rebates for new diesel vehicles are capped at $21,000 for school buses and $70,000 for trucks, while those for new low-emission vehicles are capped at $33,000 for buses and $120,000 for trucks. 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 expected from these replacement projects are shown below.







2021-2022 School Bus Replacement Rebates: $316,569

Name	Location	Replacement	Rebate Amount
Arlington Public School	Arlington	Diesel Bus	$21,000
Bloomfield Community Schools	Bloomfield	Diesel Bus	$21,000
Broken Bow Public Schools	Broken Bow	Diesel Bus	$21,000
Doc Holiday Express	Grand Island	Propane Bus	$33,000
Elmwood-Murdock Public Schools	Murdock	Diesel Bus	$21,000
Falls City Public Schools District 56	Falls City	Diesel Bus	$21,000
Maywood Public Schools	Maywood	Propane Bus	$33,000
Palmyra Schools District OR-1	Palmyra	Diesel Bus	$21,000
Pleasanton Public School	Pleasanton	Propane Bus	$33,000
South Central USD #5	Fairfield	Gasoline Bus	$16,569
Wakefield Community Schools	Wakefield	Diesel Bus	$21,000
Wausa Public Schools	Wausa	Propane Bus	$33,000
Waverly Public Schools #145	Waverly	Diesel Bus	$21,000

2021-2022 Refuse Truck Replacement Rebates: $398,600

Name	Location	Replacement	Rebate Amount
Abe's Trash Service	Omaha	2 Diesel Refuse Trucks	$138,000
Gretna Sanitation	Gretna	1 CNG Refuse Truck	$120,000
Waste Connections (Papillion Sanitation)	Springfield	2 Diesel Refuse Trucks	$140,000

2021-2022 Irrigation Engine Replacement Rebates: $555,209

Name	County	Replacement	Rebate Amount
CKS Farms Inc.	Hall	Electric motor	$12,908
Clark, Rod	Wheeler	Electric motor	$20,000
CLM Enterprises	Holt	Electric motor	$20,000
Fanning, Craig	Chase	Electric motor	$20,000
Goertz Family Farms LLC	Keith	Electric motor	$20,000
Goertzen, Danny	Perkins	Electric motor	$20,000
Goertzen, Wendel	Perkins	Electric motor	$20,000
Kallhoff, Alice Rev. Trust	Antelope	Electric motor	$20,000
Kerkman Sandhills Farms	Holt	Electric motor	$20,000
Krieger, Lowell	Holt	Electric motor	$19,997
Laird, Barbara E.	Wheeler	Electric motor	$20,000
Larson, Tamara	Wheeler	Electric motor	$20,000
LDP Inc.	Perkins	Electric motor	$20,000
MTC Properties	Lincoln	Electric motor	$20,000
Nelson Agri Corp	Keith	Electric motor	$20,000
O & W Dairy Farm	Antelope	Electric motor	$20,000
O'Brien, Dale	Hayes	Electric motor	$20,000
Oeltjen, Charles	Greeley	Electric motor	$19,238
Olson, L.R. and Sons Inc	Jefferson	Electric motor	$20,000
Olson, Ron	Jefferson	Electric motor	$19,995
Peaster, Bruce L.	Perkins	Electric motor	$20,000
Plejdrup, Harold	Hall	Electric motor	$20,000
Reiman, James B. Farms Inc.	Boyd	Electric motor	$20,000
Riley, James	Buffalo	Electric motor	$20,000
Schrader, David	Antelope	Electric motor	$16,317
Sehi Farms Inc.	Antelope	Electric motor	$18,969
Williby, Neil	Antelope	Electric motor	$14,840
Z Brothers LLC	Antelope	Electric motor	$9,248
Zuhlke, Derek	Antelope	Electric motor	$13,943
Zuhlke, Dillan	Antelope	Electric motor	$13,754

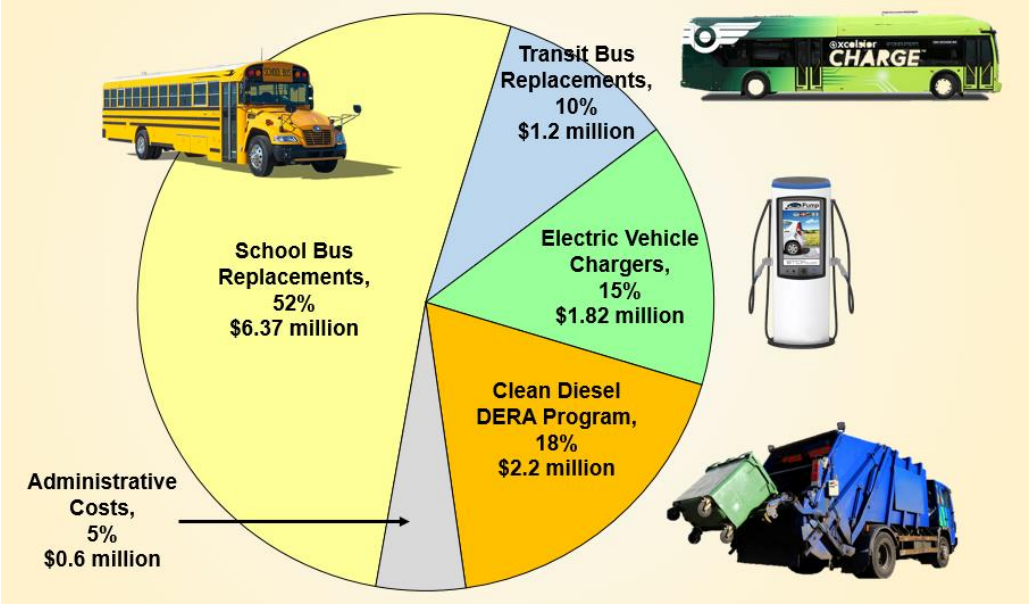
Cleaner replacement refuse truck powered by compressed natural gas (CNG) delivered to Uribe Refuse Services in Lincoln in May 2022, partially funded by the 2020 Nebraska Clean Diesel Rebate Program. NDEE photo.

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, which has been supplemented by approximately $238,000 in investment income. 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 following table and figure 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 (completed)	10%	$1,224,835
School Bus Diesel & Propane Replacements (completed)	52%	$6,369,141
Zero Emission Vehicle (Electric Vehicle) Charging Infrastructure	15%	$1,818,224
DERA: Irrigation engine, school bus, & refuse Truck Replacements	18%	$2,223,729
Administrative Costs*	5%	$612,417
TOTAL	100%	$12,248,347.48

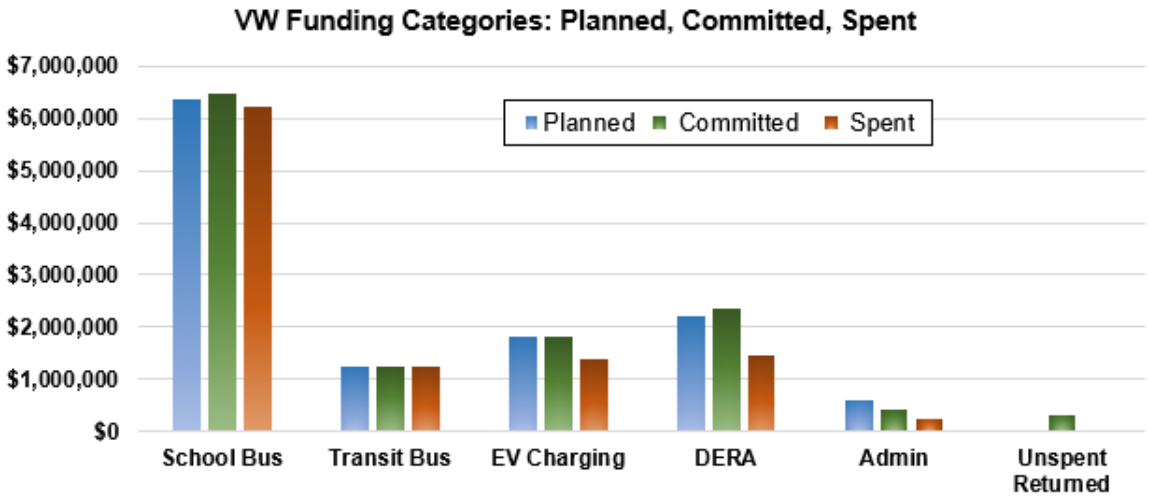
* The Trust agreement allows reimbursement of administrative costs up to 15% of each funded project.

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. As of June 2022, the Department has expended 84% of the VW funds, meeting that threshold, and has set a goal of expending Nebraska's share of the funds by the end of 2024.

Nebraska Diesel Emission Mitigation Program

NDEE established the Nebraska Diesel Emission Mitigation Program to use VW State Trust funds for projects to mitigate NOx emissions in Nebraska. The program has carried out projects in all of the categories laid out in the Beneficiary Mitigation Plan. As of the end of June 2022, NDEE has requested Trust funds for ten projects and expended $10,514,547 of those funds. The distribution of spending in the different project categories is shown in the following chart.

The transit bus and school bus rebate programs have been completed. Remaining funds are dedicated to the Electric Vehicle Charge Rebate Program and to DERA projects.



NDEE's Beneficiary Mitigation Plan set a goal to limit administrative costs to no more than 5% of Trust funds spent. To date only 2.2% of Trust funds spent have been for administrative costs.

Electric Vehicle Charging Rebates

The Nebraska Electric Vehicle Charging Rebate Program begun in 2019 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.

During the past year charging equipment has been installed at 12 new locations in Nebraska, including the first fast chargers in Blair, La Vista, Nebraska City, Norfolk, North Bend, Syracuse, and Waverly. The Department reimbursed $921,368 for these projects, which resulted in 10 new fast charging ports and 25 new Level 2 charging ports. A list of these projects is shown below. Remaining open projects are expected to be completed by the end of calendar year 2022.

Electric Vehicle Charging Projects Completed 2021-2022

			# Charging Ports	
Recipient	**City**	**Rebate**	**DC**	**L2**
Metropolitan Community College	Omaha	$48,246	1	4
Nebraska City Utilities	Nebraska City	$70,889	1	
Nebraska Innovation Campus	Lincoln	$91,430	1	2
Nebraska Public Power District	Norfolk	$53,439	1	2

Nebraska Public Power District	Scottsbluff	$8,997		2
OPPD / Casey's General Store	Blair	$108,667	1	2
OPPD / Casey's General Store	North Bend	$108,667	1	2
OPPD / Casey's General Store	Syracuse	$108,667	1	2
OPPD / City of La Vista	La Vista	$100,267	1	2
OPPD / City of Omaha	Omaha	$134,267	1	2
Russ's Market Express	Waverly	$68,002	1	2
University of Nebraska	Lincoln	$19,830		3
TOTAL		$921,368	10	25

DC fast charger installed at Nebraska Innovation Campus and partially funded through the Nebraska Electric Vehicle Charging Rebate Program.

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

NDEE's internal Grow Nebraska Team (GNT), provides outreach to new businesses proposing operations in Nebraska within 10-days of a request for information, in addition to the services outlined below.

The following summarizes the primary compliance assistance activities offered by the agency.

- Compliance Assistance Visit (CAV): An on-site service offered by NDEE in response to a request by a business or regulated party to receive support for one or multiple environmental program areas to which they are currently subject or considering under proposed operations. Compliance assistance activities (see individual Site Assistance/Training below) may be provided during an inspection; however, a CAV cannot be requested after an inspection that may result in enforcement until that issue is resolved. A CAV focuses on supporting the efforts of an entity to achieve voluntary compliance; however, it does not absolve it from receiving an enforcement action if egregious violations are found during the visit.

- Permit Assistance Visit (PAV): An on-site service (or meeting) offered by NDEE in response to a request by a business or regulated party to receive support under a new, modified, or existing permit to address permit related questions.

- One-Stop Meeting: A One-Stop Meeting allows for a newly proposed or expanding business and their selected representatives to engage with applicable NDEE permitting programs and other regulatory agencies. The goal of each meeting is to provide the permittee an opportunity to ask questions and receive direction toward attainment of the necessary permits to achieve environmental regulatory compliance.

- Scoping Meeting: A meeting within or outside of NDEE to introduce a new or proposed business to involved staff, programs, and agencies. The meeting may include a review of processes or technologies, tools, resources, and strategic partnerships to assist the business in making the appropriate contacts for applicable regulatory requirements or business needs.

- Individual Site Assistance/Training: An on-site service offered by NDEE in response to a request or during or after a Compliance Inspection.

Key accomplishments for the team during the 2022 FY included:

- Hosted eight webinars on the voluntary cleanup program, permitting tools and resources, air general construction permit, title 119 outreach, understanding air permitting thresholds, construction stormwater presented twice, and proposed changes to title 119
    - Conducted mini follow-up surveys after webinars that provided immediate customer feedback about the webinar events.

- Added updated permit information and resources to the Permit Matrix. The Matrix assists small businesses with compliance-related topics by sharing links to guidance documents, program overviews, regulations, supporting NDEE web pages, and additional resources

- Conducted three multi program-based Compliance Assistance Visits

- Assisted 44 businesses and communities with compliance questions over the phone

- Held six One Stop meetings where a firm can talk with NDEE experts from multiple fields

- Held one Scoping Meeting for a firm to begin to determine what permits might be applicable

- Maintained regular engagement with the Nebraska Industrial Council on the Environment (NICE)

- Maintained agency's video events page on the NDEE website with webinar recordings, presentation slide decks, and compilations of answers to webinar participant questions

- Supported NDEE staff to be remote presenters at two separate and distinct conferences pertaining to emergency management and energy.

- Continued social media outreach via Twitter, Facebook, and LinkedIn with monitoring of metrics in conjunction with the Public Information Office

The Department continues to work on improvements to its outreach and assistance processes in the wake of the pandemic; develop standard operating procedures to support remote and in-person outreach events and maintaining the goal to provide necessary support for stakeholders in an effort to make compliance easy.

CHAPTER 5:
Land Management Programs

The Land Management Programs' objectives are 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.

Waste Grants Programs

The Grants Section manages the Waste Reduction and Recycling Incentive Grants Program and the 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 Environment and Energy/Nebraska Environmental Trust Partnership

In July 2018, the Nebraska Department of Environmental Quality (now NDEE) and the Nebraska Environmental Trust entered 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 16, 2021 a hearing was held to decide the 2022 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 2022 were based on the actual applications received:

Category	2022 Eligible Requests	
Recycling	32%	$740,681
Public Education	66%	$1,542,174
Cleanup	2%	$48,996
Totals	100%	$2,331,851

The Department asked for the ability to adjust the percentages by up to 20% for the 2022 grant year, if warranted. The Environmental Quality Council approved this request.

New Grant Application Guidance Updates

To address common issues with grant recipients, the Section 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 2022 to clarify eligible reimbursements for personnel and other expenses.

The Litter Reduction and Recycling and Waste Reduction and Recycling Incentive grant programs are awarded on a calendar year basis starting January 1 through December 31. This allows our grant programs to more closely align with the grant application period of the Nebraska Environmental Trust. The application period is open for several weeks mid-summer each a calendar year. Applicants are able to apply through an online application process.

Expected Service Life

The Grants Section 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.

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, 2021 - June 30, 2022	
Fund Balance June 30, 2021	**$2,005,808**
Revenues:	
New Tire Fees	$2,450,200
Business Fee	$498,157
Solid Waste Disposal Fee	$1,617,197
Interest, Grant Returns	$35,386
Miscellaneous	$56,010
Operating Transfers Out	$-180,000
Net Collections for Year	**$4,476,950**
Expenditures:	
Administration	$356,345
Grant Funds Expended*	$3,804,370
Total Expenditures FY 2022	**$4,160,715**
Fund Balance June 30, 2022	**$2,322,044**

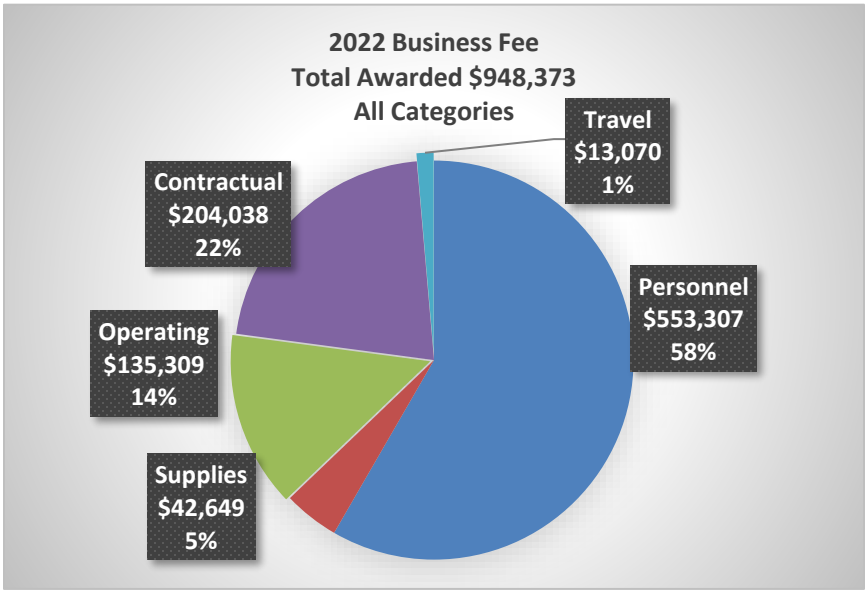
**Because grants funds are expended on a reimbursement basis, total grant funds expended in a fiscal year will differ from the amount of grants awarded in that fiscal year.*

For calendar year 2022, $4,499,736 was awarded for Waste Reduction and Recycling Incentive Grants to 104 projects. There were 18 grants awarded from the Business Fee category ($948,373), 9 were awarded from the Disposal Fee category ($1,218,800), and 77 were awarded from the funds prioritized for scrap tire projects ($2,332,563).

Funds received in the Business Fee, Disposal Fee, and Tire Fee categories are represented by the following graphs. Locations across Nebraska that received funds are represented by the following lists.

Waste Reduction & Recycling Grants for FY 2022

Business Fee

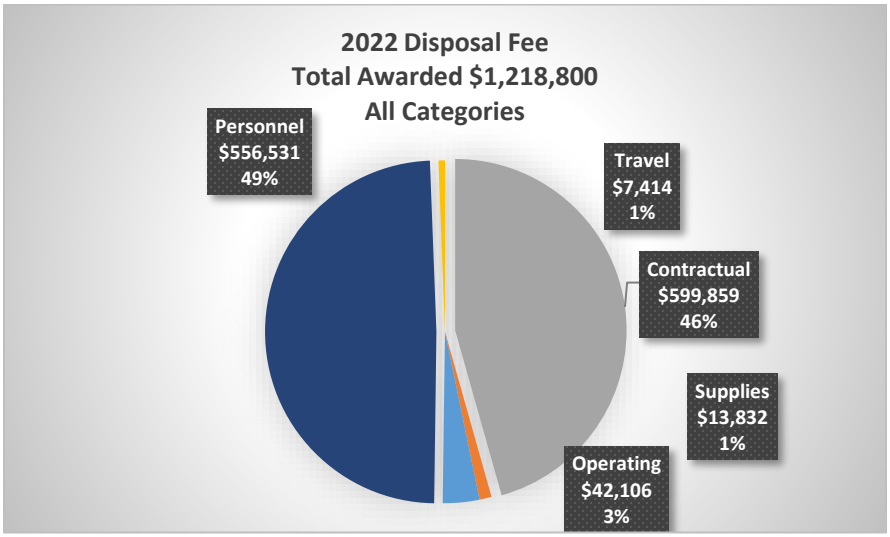


(Photos provided by Dave Haldeman) Keep Scottsbluff-Gering Beautiful was awarded funding for events which took back pharmaceuticals and household hazard waste for residents of Scottsbluff, Gering, and surrounding areas.

Business Fee: $948,373 for 18 grants			
Alliance	Keep Alliance Beautiful	$108,637	Funds for the recycling center operations for Box Butte Co., and surrounding areas, and waste reduction and recycling education programs. To date KAB has collected 394,334 of recycled materials.
Bassett	North Central RC&D	$11,098	Funds for three HHW events in Spencer, Stuart, and O'Neill, Nebraska.
Chadron	Keep Chadron Beautiful	$63,776	Funds to continue the paper and cardboard recycling program in Chadron.
Columbus	Keep Columbus Beautiful	$24,515	Funds to host a household hazardous waste (HHW) collection for residents of Platte County.
Columbus	Keep Columbus Beautiful	$12,549	Funds to host an E-Waste event for the City of Columbus.
Fremont	Keep Fremont Beautiful, Inc	$29,221	Household hazardous waste collection event for over 36,500 residents of Dodge County.
Grand Island	Grand Island Area Clean Community System	$148,217	Funds to operate the Household Hazardous Waste (HHW) facility for Hall, Hamilton, Howard, Merrick, and Adams counties.
Kimball	Keep Kimball Beautiful	$17,094	Funds to increase recycling by providing collection services for rural residents and residential alley recycling. Program serves Kimball and Banner counties.
Lexington	Lexington Area Solid Waste Agency	$28,242	Funds to hold two household hazardous waste collection events to serve 45,000 people in central Nebraska.
Lincoln	Keep Nebraska Beautiful	$93,098	Funds for the Materials Exchange Program, Food Waste Program (yearlong social media campaign to reduce food waste) and Used Oil Program (collect oil and anti-freeze at 62 sites in 58 counties).
Lincoln	Lincoln Public Schools	$51,962	Funds to continue funding the recycling program at Lincoln Public Schools and to expand the efforts by purchasing equipment to replace departing contractor's equipment.
Lincoln	Joslyn Institute for Sustainable Communities	$9,600	Funds to plan the opening of the Lincoln/Lancaster County LNK Conservation Center for Food and construction materials resale markets.
Louisville	Keep Cass County Beautiful	$1,800	Hold four electronic waste (e-waste) collection events for Cass County residents.
Oakland	Loess Hills RC&D	$18,022	Conduct 3 hazardous waste collection events in Cuming, Dakota, and Burt Counties.

Ogallala	Western Resources Group	$191,951	Funds to collect and process recyclables collected from central and western Nebraska.
Ogallala	Western Resources Group	$65,602	Funds to develop a secondary market for processed cardboard for post-consumer animal bedding.
Ogallala	Keep Keith County Beautiful	$19584	Continue litter reduction and recycling at Lake McConaughy and continue school and education program.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$53,405	Hold a pharmaceutical take back and household hazardous waste collection for Scottsbluff, Gering, and surrounding area.

Disposal Fee



(Photo provided by City of Sidney) Keep Sidney Beautiful affiliate and its successful recycling program.

Disposal Fee: $1,218,800 for 9 grants			
Adams	City of Hastings	$20,000	Funds to host a two-day E-Waste event for the residents of Adams County, NE. Contractual Services.
Cheyenne	City of Sydney	$24,796	Funds to staff City of Sidney's recycling program, assisting with the increase amount of recycled material collected and reduce the amount of waste transported to the landfill. Personnel and supplies.
Lincoln	Lincoln and Lancaster County Health Department	$326,162	Maintain and operate the Lincoln Lancaster County Health Department's HazToGo household hazardous waste (HHW) disposal facility. The facility serves over 319,000 residents of Lancaster County.
Lincoln	City of Lincoln	$ 231,101	Funds to improve the organic waste diversion for compost in the City of Lincoln.
Lincoln	University of Nebraska-Lincoln Board of Regents	$69,372	Program for UNL engineering students to provide technical onsite waste/volume reduction and recycling assistance for Nebraska manufacturing businesses during the summer.
McCook	Red Willow County	$169456	Funds to provide residents of central and southwest Nebraska with safe, reliable means to recycle or dispose of household hazardous waste (HHW).
Omaha	City of Omaha -- UnderTheSink HHW Facility	$365,415	Funds for Omaha's UnderTheSink household hazardous waste (HHW) facility serving Douglas and Sarpy counties. In 2019 over 1.3 million lbs. of HHW were collected and processed.
Wayne	City of Wayne	$6,622	Funds to offer a convenient household battery recycling program at no charge to the public within the City of Wayne community. Contractual Services.
Wayne	City of Wayne	$8,878	Hold an electronic waste (e-waste) event for residents of Wayne and surrounding towns.

Tire Fee

The scrap tire grants are funded by the $1 per tire fee on retail sales of new tires. In 2021, $2,332,563 was awarded to 77 projects.

- Scrap tire cleanup events: 33 grants, $1,184,155 awarded
- Completed projects for the partial reimbursement of the purchase of tire-derived products and/or crumb rubber: 41 grants, $1,130,657 awarded
- Proposed projects for the partial reimbursement for the purchase of tire-derived products and/or crumb rubber: 3 grants, $20,990

Scrap Tire Cleanup Events

Funding is provided to political subdivisions for tire collection site cleanups. Thirty-three scrap tire cleanup grants were awarded in 2021 to political subdivisions. The grants totaled $1,184,155 and proposed to clean up 8,695 tons of scrap tires.

Photos provided by City of Cozad which was awarded funds for a proposed 100-ton scrap tire cleanup event

Scrap Tire Cleanup Events: 33 grants, $1,184,155 awarded			
Ainsworth	KBR Solid Waste Committee	$30,852	Proposed 200-ton of scrap tire cleanup
Albion	City of Albion	$13,685	Proposed 100-ton of scrap tire cleanup
Alma	Lower Republican Natural Resource District	$11,982	Proposed 100-ton of scrap tire cleanup
Alma	Lower Republican Natural Resource District	$20,607	Proposed 175-ton of scrap tire cleanup
Alma	Lower Republican Natural Resource District	$17,732	Proposed 150-ton of scrap tire cleanup
Chadron	Solid Waste Agency of Northwest Nebraska (SWANN)	$27,383	Proposed 150-ton of scrap tire cleanup
Columbus	City of Columbus	$28,852	Proposed 250-ton of scrap tire cleanup
Cozad	City of Cozad	$14,806	Proposed 100-ton of scrap tire cleanup
Davenport	Little Blue Natural Resources District	$29,232	Proposed 250-ton of scrap tire cleanup
Davenport	Little Blue Natural Resources District	$29,232	Proposed 250-ton of scrap tire cleanup
Davenport	Little Blue Natural Resources District	$32,107	Proposed 275-ton of scrap tire cleanup

Hartington	Cedar County	$69,846	Proposed 550-ton of scrap tire cleanup
Hayes Center	Hayes County	$20,376	Proposed 125-ton of scrap tire cleanup
Holdrege	City of Holdrege	$46,161	Proposed 350-ton of scrap tire cleanup
Kearney	City Of Kearney/ Kearney Area Recycling Center	$40,300	Proposed 325-ton of scrap tire cleanup
Minden	Kearney County	$25,830	Proposed 200-ton of scrap tire cleanup
Nebraska City	County of Otoe	$61,006	Proposed 450-ton of scrap tire cleanup
Nelson	Nuckolls County Road Department	$16,620	Proposed 120-ton of scrap tire cleanup
Ogallala	Keith County Nebraska	$40,000	Proposed 300-ton of scrap tire cleanup
Omaha	City of Omaha	$78,100	Proposed 400-ton of scrap tire cleanup
O'Neill	North Central District Health Department	$41,128	Proposed 300-ton of scrap tire cleanup
O'Neill	North Central District Health Department	$48,028	Proposed 300-ton of scrap tire cleanup
Palisade	Village of Palisade	$18,671	Proposed 125-ton of scrap tire cleanup
Papillion	Sarpy County	$82,250	Proposed 650-ton of scrap tire cleanup
Pawnee City	Pawnee County	$8,902	Proposed 75-ton of scrap tire cleanup
Pierce	Pierce County	$15,520	Proposed 150-ton of scrap tire cleanup
Spencer	Village of Spencer	$49,761	Proposed 325-ton of scrap tire cleanup
Stapleton	Village of Stapleton	$29,331	Proposed 200-ton of scrap tire cleanup
Stockville	Frontier County	$20,806	Proposed 150-ton of scrap tire cleanup
Tekamah	Papio Missouri River NRD	$120,812	Proposed 800-ton of scrap tire cleanup
Wahoo	Saunders County Highway Dept	$29,201	Proposed 250-ton of scrap tire cleanup
Wilber	Saline County	$22,660	Proposed 200-ton of scrap tire cleanup
York	York Area Solid Waste Agency	$43,528	Proposed 350-ton of scrap tire cleanup

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

In 2021, $1,151,647 was awarded to 45 projects to partially reimburse the purchase of tire-derived products and/or crumb rubber.

Photo provided by the Wakefield Community School, which was awarded for partial reimbursement of artificial turf made with 375,011 lbs. of crumb rubber for their Gardner Stadium.

The Alliance Recreation Center received a 50% reimbursement for the purchase of 36,000 lbs. of rubber playground mulch.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber- Completed Projects: 41 projects, $1,130,657 awarded			
Alliance	Alliance Recreation Center	$6,100	50% reimbursement for rubber mulch.
Alliance	Keep Alliance Beautiful	$6,473	50% reimbursement for rubber mulch using 40,000 lbs rubber.
Arlington	Arlington Youth Sports	$3,097	50% reimbursement for rubber mulch using 34,000 lbs rubber.
Bellevue	Bellevue Public Schools	$87,471	25% reimbursement for track.
Bloomfield	Bloomfield Community Schools	$400	50% reimbursement for rubber mulch.
Blue Hill	Blue Hill Community Schools	$4,035	50% reimbursement for rubber mulch and 25% reimbursement for mats.
Bridgeport	Bridgeport Public Schools	$6,468	25% reimbursement and 50% reimbursement for rubber mulch.
Cairo	Centura Public Schools	$6,438	25% for poured in place
Central City	Central City Public Schools	$1,650	50% reimbursement for rubber mulch.
Dalton	Leyton Public School	$25,860	25% reimbursement for a new track.
Edgar	City of Edgar	$620	50% reimbursement for rubber mulch.
Fairfield	Sandy Creek Public School	$13,040	25% reimbursement to resurface track.
Fort Calhoun	Fort Calhoun Community Schools	$2,666	25% reimbursement for rubber tiles and turf.
Fremont	Friends of the Fremont Area Parks	$6,219	25% reimbursement for rubber surface using 21,250 lbs rubber.
Fremont	Growing Hearts Academy	$2,625	25% reimbursement of a poured-in-place surface using 3,100 lbs rubber.
Geneva	Fillmore Central Schools	$13,000	25% reimbursement for track using 11,950 lbs of rubber.
Gretna	Gretna Public Schools	$180,397	25% reimbursement for turf.
Harrisburg	Banner County School	$1,225	50% reimbursement for rubber mulch.
Hastings	City of Hastings	$27,602	25% reimbursement for rubber in poured-in-place surface.
Holdrege	Bethel Lutheran Church	$2,722	50% reimbursement for rubber mulch.
Homer	Village of Homer	$2,514	50% reimbursement of rubber mulch.
Kearney	New Life Assembly	$9,157	50% reimbursement for rubber mulch using 2,475 cf of rubber.
Kearney	Corey Cruzan	$586	50% reimbursement using 4,000 lbs crumb rubber

Lincoln	Cathedral of the Risen Christ	$4,648	50% reimbursement for rubber mulch using 32,000 lbs rubber.
Lincoln	Lincoln Public Schools	$100,028	25% reimbursement for turf.
Lincoln	Lincoln Public Schools	$72,998	25% reimbursement for turf.
Lincoln	Nebraska Game & Parks Commission	$11,122	25% reimbursement for picnic tables.
Lincoln	Lincoln Public Schools	$72,998	25% reimbursement for turf.
Lincoln	Lincoln Public Schools	$72,675	25% reimbursement for turf.
Lincoln	Lincoln Public Schools	$79,375	25% reimbursement for turf.
Loomis	Loomis Public Schools	$2,025	50% reimbursement for rubber mulch.
Loup City	Bowman Lake Recreation Area	$319	25% reimbursement for park benches.
Omaha	Millard Public Schools	$65,360	25% reimbursement for turf.
Oxford	Village of Oxford	$1,872	50% reimbursement for rubber mulch.
Plattsmouth	Plattsmouth Community Schools	$29,266	25% reimbursement for new track.
Ralston	Ralston Public Schools	$103,909	25% reimbursement for track and turf.
Schuyler	Divine Mercy Parish	$1,248	25% reimbursement for rubber mulch using 4,500 lbs rubber.
Tecumseh	City of Tecumseh	$1,183	25% reimbursement for the purchase of picnic tables.
Wakefield	Wakefield Community School	$97,707	25% reimbursement for rubber turf.
Wausa	Thabor Tots childcare Center	$3,187	50% reimbursement for rubber mulch and rubber boarder.
Wilber	The Gingerbread House	$372	25% reimbursement for rubber mats and 50% rubber mulch.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber- Proposed Projects: 3 projects, $159 awarded			
Cairo	Village of Cairo	$6,560	Proposed 50% reimbursement for rubber mulch.
Oxford	Village of Oxford	$7,215	Proposed 50% reimbursement for rubber mulch.
Potter	Village of Potter	$7,215	Proposed 50% reimbursement for rubber mulch.

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 first- and second-class cities, villages, and counties with a population of 99,000 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) A grant was awarded in 2020 to the City of Oshkosh for the deconstruction of the abandoned Midwec Building at 602 Main St.

Illegal Dumpsite Cleanup Program

The Illegal Dumpsite Cleanup Program, established in 1997, is a Waste Reduction and Recycling 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 FY2022, the program provided 25 grants, totaling $30,753. Funds were provided to:

Illegal Dumpsite Cleanup Awards		
City of Lincoln - 5	City of Omaha – 6	Seward County - 5
Lincoln/Lancaster County - 6	Adams County - 3	

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 FY2022, the program provided $72,591 to five counties and six cities participating in the program. All 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	$ 5,878	Butler County	$ 731	City of David City	$ 176
City of North Platte	$ 2,681	City of Lincoln	$ 22,458	Saline County	$ 1,437
City of Omaha	$ 36,574	South Sioux City	$ 500	Jefferson County	$ 354
Seward County	$ 1,688	City of Grant	$ 114		

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, 2021 - June 30, 2022	
Fund Balance June 30, 2021	**$2,480,671**
Revenues:	
Litter Taxes Collected	$2,656,718
Interest, Grant Returns	$34,015
Miscellaneous Adjustment	$0
Operating Transfer Out	$-190,000
Net Collections for FY2022	**$2,500,733**
Expenditures:	
NDEE Administration	$274.672
Grant Funds Expended*	$2,016,499
Total Expenditures FY2022	**$2,291,171**
Fund Balance June 30, 2022	**$2,690,779**

**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

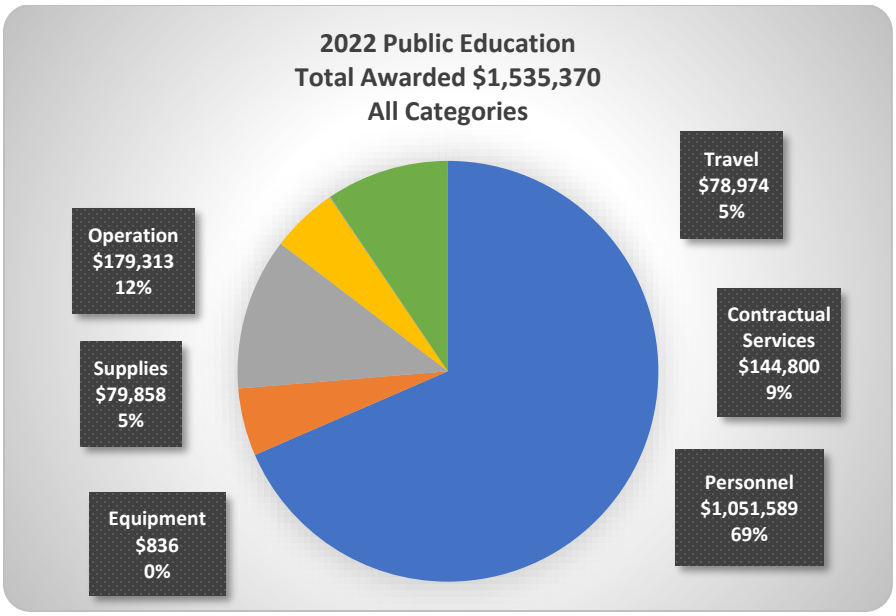
In 2022, $2,179,271 was awarded to 51 Litter Reduction and Recycling Grant recipients. Grant funding is awarded to several types of programs, including non-profit groups, public and private entities, and over 20 Keep America Beautiful affiliates. Many of these programs utilize the Litter Reduction and 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	(70%)	22 grants	$ 1,535,370
Cleanup	(3%)	11 grants	$ 56,349
Recycling	(27%)	18 grants	$ 587,552
Totals	**100%**	**51 grants**	**$ 2,179,271**

Public Education

In 2022, 22 grants totaling $1,535,370 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 Keith County Beautiful (KKCB), which was awarded public education on litter reduction through source reduction, recycling right, food waste elimination, and sustainable waste management. KKCB works with local Material's Recovery Facility to encourage and increase recycling.

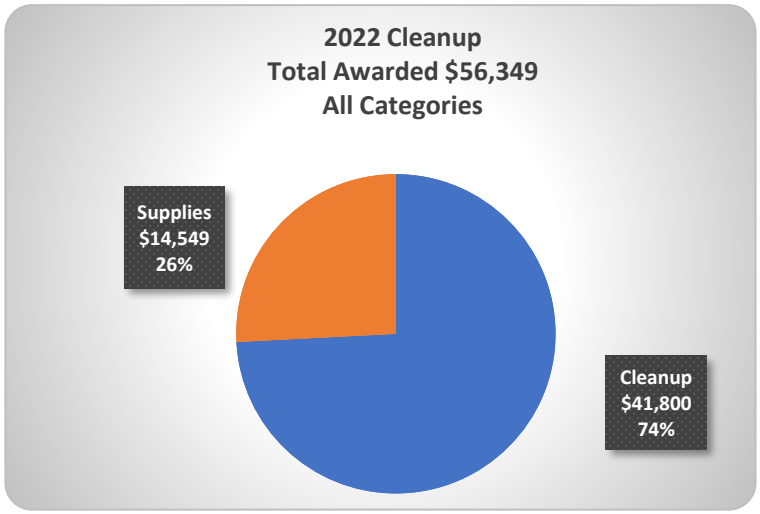
Public Education Awards: $1,535,370 for 22 grants			
Alliance	Keep Alliance Beautiful	$68,372	Public education for waste reduction and litter prevention to Box Butte County students and residents. Teach practical habits to reduce, reuse, and recycle.
Beatrice	Keep Beatrice Beautiful, Inc.	$35,628	Public education to promote litter reduction and recycling. Partner with the City of Beatrice and Gage County.
Burwell	Loup Basin RC&D Council/Keep Loup Basin Beautiful	$47,805	Public education for litter prevention, waste reduction, and recycling in Central and North Central Nebraska.

Chadron	Keep Chadron Beautiful	$73,735	Public education to establish new attitudes and behaviors toward litter reduction and recycling. Conduct community presentations, help with litter-free events, and offer educational after-school programs.
Columbus	Keep Columbus Beautiful	$39,260	Public education for schools, businesses, and organizations to increase recycling and raise awareness for litter prevention in Platte County.
Fremont	Keep Fremont Beautiful, Inc.	$78,180	Public education to promote greater public awareness regarding environmental issues, increase community participation in litter reduction, recycling, and proper waste disposal efforts.
Grand Island	Grand Island Area Clean Community System	$49,486	Public education on litter, recycling, and reuse, and proper disposal of household chemicals through presentations to adults and youth in Hall County.
Kimball	Keep Kimball Beautiful	$24,928	Public education for Kimball and the surrounding area concerning litter prevention and proper waste management. Work with Kimball Public Schools and Banner County School.
Lexington	Keep Lexington Beautiful	$31,674	Public education to reduce waste and improve recycling efforts to Lexington Public Schools through afterschool and summer programs.
Lincoln	City of Lincoln	$163,793	Updated waste characterization study; educational signage for the City and County buildings and education module for the staff. Marketing and educational materials for EarthFuel Compost.
Lincoln	Nebraska Recycling Council	$91,368	Outreach and education programs that provide recycling and materials management, technical assistance, instructional publications, waste assessment and audits, and develop Nebraska's composting industry.
Lincoln	Lincoln - Lancaster County Health Department	$133,333	Public education for litter prevention, reduce landfill waste, and proper waste management practices for Lancaster County. Stormwater awareness program, cigarette litter, and illegal dumping prevention.
Lincoln	Keep Nebraska Beautiful	$106,040	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.
Louisville	Keep Cass County Beautiful	$58,856	Education and resources for litter prevention and waste reduction; presentations for six school districts and youth groups, environmental fair for 300 fifth graders and other public events.
Nebraska City	Keep Nebraska City Beautiful	$46,236	Public education to increase recycling, promote litter reduction, and food waste reduction through school programs and community presentations in Nebraska City.
Norfolk	Keep Norfolk Beautiful	$27,886	Public education to teach youth about the importance of litter prevention, proper recycling practices, and instill proper waste handling habits in Madison County.
North Platte	Keep North Platte and Lincoln County Beautiful	$102,172	Public education to encourage waste reduction and litter free environment. Focus on purchasing with recycling in mind, food waste reduction, and composting.
Ogallala	Keep Keith County Beautiful	$135,704	Public education on litter reduction through source reduction, recycling right, food waste elimination, and sustainable waste management.

Omaha	Keep Omaha Beautiful	$149,850	Public education program focused on litter prevention, waste reduction, recycling, and composting through school based educational programming, community-based outreach and partnership, curriculum certification workshops, and a digital-based "Recycle Right" campaign.
Papillion	Trumble Park Elementary Parent Teacher Organization	$1,000	Funding for recycling bins and recycling services provided to the elementary school.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$38,994	Educational programs on litter prevention, waste reduction, recycling, and Earth Day Celebration.
Sidney	Keep Sidney Beautiful	$31,070	Promote public education and programming for public waste reduction initiatives and large community clean up events.

Cleanup

In 2022, 11 grants totaling $56,349 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 802 road-side miles and 710 acres of public areas.

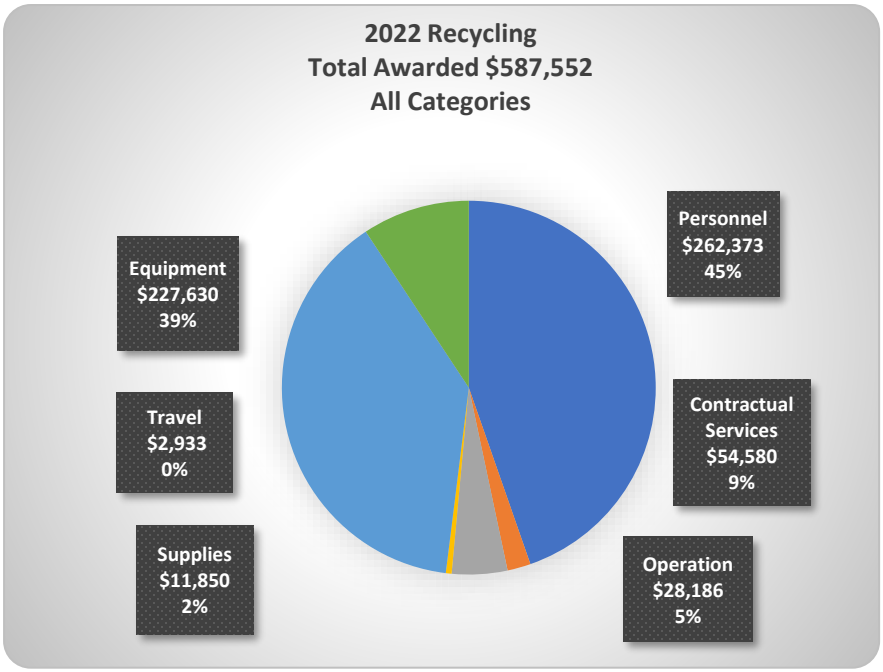


Photos provided by Grand Island Area Clean Community System, which was awarded funding to clean up a proposed 100 miles and 50 acres around Hall County. As of August 1, 2022, GIACCS volunteers have cleaned up over 17,708 lbs. of litter.

Cleanup Awards: $56,349 for 11 grants			
Beatrice	Keep Beatrice Beautiful, Inc.	$6,200	Cleanup 100 miles and 60 acres in Gage County.
Chadron	Keep Chadron Beautiful	$5,152	Cleanup 100 miles in Dawes County.
Grand Island	Grand Island Area Clean Community System	$6,000	Cleanup 100 miles and 50 acres around Hall County.
Louisville	Keep Cass County Beautiful	$1,200	Cleanup 12 miles and 60 acres in Cass County.
North Platte	Keep North Platte and Lincoln County Beautiful	$16,314	Supplies and cleanup 320 miles within Lincoln County.
Ogallala	Keep Keith County Beautiful	$3,000	Cleanup 60 miles in Keith County.
Omaha	Keep Omaha Beautiful	$7,235	Supplies to support 500 cleanup events in Omaha.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$7,353	Cleanup 100 miles in Scottsbluff County.
Sidney	Keep Sidney Beautiful	$465	Funding for supplies to support cleanup activities in Cheyenne County.
South Sioux City	City of South Sioux City	$2,930	Supplies to support cleanup in South Sioux City parks.
Steinauer	Steinauer Community Club/Village of Steinauer	$500	Cleanup 10 miles in the Village of Steinauer.

Recycling

In 2022, 18 grants totaling $587,552, 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: $587,552 for 18 grants			
Alliance	Keep Alliance Beautiful	$60,024	Funds to operate the recycling center in Alliance serving Box Butte County.
Columbus	Keep Columbus Beautiful	$26,930	Provide services to move recyclable materials collected in Columbus to the recycling center in Schuyler.
Crofton	City of Crofton	$1,999	Funding for recycling program for the City of Crofton.
Diller	Village of Diller	$4,547	Funding for staff to transport the recycling trailer to dispose recycled materials at the City of Beatrice recycling center.
Falls City	Hamilton Recycling & Disposal	$127,500	Funding for building improvements and equipment for Hamilton Recycling waste management company.
Kearney	Board of Regents University of Nebraska dba UNK	$1,474	Promote recycling on campus and reduce the overall waste on campus through advertisements and different education sessions at campus events.
Kimball	Keep Kimball Beautiful	$53,711	Funds to operate the Kimball Recycling Center serving Kimball County.
La Vista	Parkview Heights Elementary School	$1,900	Funding for recycling bins and recycling services provided to Parkview Heights Elementary School.
Lexington	Keep Lexington Beautiful	$22,047	Conduct two paper shredding events in Lexington, service five recycling trailers, and support cleanups in the area.
Lincoln	Nebraska Recycling Council	$49,967	Hub & Spoke Program to stabilize the operation of rural recycling centers.
Madison	City of Madison	$23,481	Funding for 50% of the concrete pad 85'x 86' for their recycling center.
Minden	City of Minden	$75,000	Funding for a trommel screen to help remove trash and recycle materials from the compost thus making the compost available to the public. The city currently has approximately 1,500 tons of compost filled with litter and recyclable materials mixed.
North Platte	Keep North Platte and Lincoln County Beautiful	$39,937	Programs to reduce waste generated and increase recyclables collected using reputable end-markets. Partner with schools and businesses. Plan to increase the collection of recyclables, electronics, non-contaminated yard waste, and household hazardous waste.
Omaha	Open Door Mission	$24,130	Funding for 127 plastic gaylords to process and redistribute donated items.
Omaha	Omaha Hebrew Academy dba Friedel Jewish Academy	$1,861	Funding to purchase 3 of the three-stream bins for trash, recycling, and composting for the school.
Schuyler	Keep Schuyler Beautiful	$45,287	Operating expenses for the Colfax County Recycling Facility.
Tekamah	Papio Missouri River NRD	$24,300	Funding to conduct four electronic waste recycling collection at NRD/USDA Service Centers in Washington, Curt, Thurston, and Dakota counties.
Verdigre	Village of Verdigre	$3,457	Funding for part-time employee to aid with the recycling effort.

Grant Reporting

Each grantee is required to submit a report quarterly, even if there is no activity. The reports are approved within 1 business day if there are no issues with the report resulting in its rejection. Here are the top issues for rejection for the reporting from January to June 2022:

- 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)
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
2021	$586,646	$1,431,568	$65,986	$2,084,200	$2,105,370
2022	$587,552	$1,535,370	$56,349	$2,179,271	$2,331,980
			Total Amounts	**$18,707,352**	**$25,155,618***

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)
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
2021	$1,661,286	$1,405,815	$3,067,101	$3,469,624
2022	$1,218,800	$948,373	**$2,100,578**	**$3,904,766**
		Total Amounts	**$23,571,373**	**$35,226,416***

Estimate FY2019 Grant awards were for a 6-month*

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

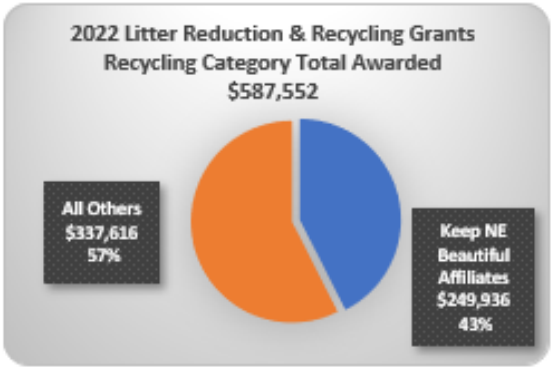
Grant Year	Awarded Deconstruction Grants	Awarded Landfill Disposal Rebate	Awarded Illegal Dumpsite
2013		$44,841	$108,674
2014		$49,792	$101,810
2015		$28,058	$94,859
2016		$162,536	$80,872
2017		$75,599	$100,892
2018		$40,433	$99,341
2019		$14,935	$91,630
2020	$186,662	$23,016	$102,061
2021		$101,365	$48,579
2022			
Total	**$478,162**	**$583,043**	**$947,380**

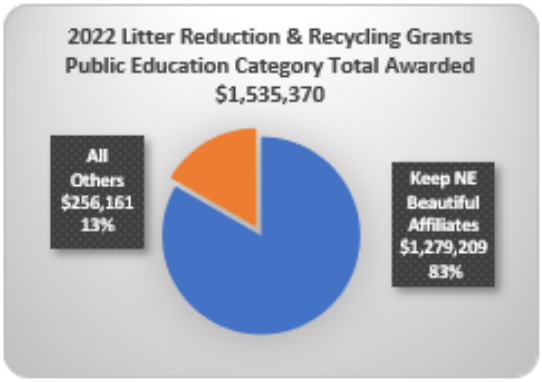
Keep America Beautiful Nebraska Affiliate Funding for 2022

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 like 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.


2022 Litter Reduction & Recycling
Total Awarded $2,176,341
All Others
$594,277
27%
Keep NE
Beautiful
Affiliates
$1,582,064
73%


2022 Litter Reduction & Recycling Grants
Recycling Category Total Awarded
$587,552
All Others
$337,616
57%
Keep NE
Beautiful
Affiliates
$249,936
43%


2022 Litter Reduction & Recycling Grants
Public Education Category Total Awarded
$1,535,370
All
Others
$256,161
13%
Keep NE
Beautiful
Affiliates
$1,279,209
83%


2022 Litter Reduction & Recyling Grants
Clean-up Category Total Awarded $53,419
All Others
$500
1%
Keep NE
Beautiful
Affiliates
$52,919
99%


2022 Waste Reduction & Recycling
Grants
Total Awarded $2,117,673
All Others
$1,339,090
63%
Keep NE
Beautiful
Affiliates
$778,583
37%

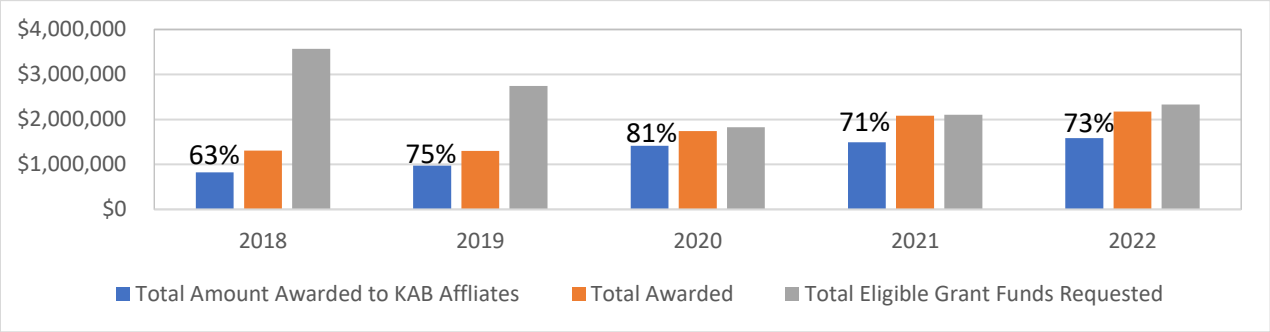

2022 Waste Reduction & Recycling
Grants
Disposal Fee Category $1,218,800
All Others
$524,694
73%
Keep NE
Affiliates
$423,679
27%


2022 Waste and Litter & Recycling
Grants Total Awarded
$4,294,014
All Others
$1,933,367
45%
Keep NE
Affiliates
$2,360,647
55%


2022 Waste Reduction & Recycling
Grants
Business Fee Category $948,373
All Others
$524,694
55%
Keep NE
Beautiful
Affiliates
$423,679
45%

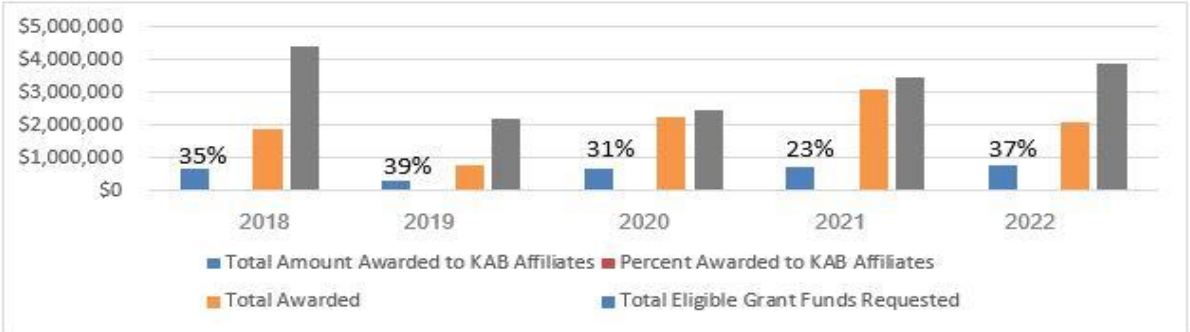
2018-2022 Awarded Litter Reduction and Recycling Grants to Keep America Beautiful (KAB) Nebraska Affiliates

Grant Year	Total Amount Awarded to KAB Affiliates	Percent Awarded to KAB Affiliates	Total Awarded	Total Eligible Grant Funds Requested
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
2021	$1,489,598	71%	$2,084,200	$2,105,370
2022	$1,582,064	73%	$2,176,341	$2,331,980



2018-2022 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
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
2021	$714,693	23%	$3,067,101	$3,469,624
2022	$778,583	37%	$2,117,673	$3,904,767



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, parties responsible for contamination, and any other entity with a mechanism for developing voluntary environmental cleanup plans that are reviewed and approved by NDEE. It also gives applicants 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 applicant that joins the VCP 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), commonly known as Superfund.

To date, 72 sites have entered the VCP. Currently, 29 sites are active in the VCP. Two sites have been referred to the EPA Superfund program. Seven 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-eight sites have successfully completed cleanup requirements and have received "No Further Action" letters from NDEE, and one site received an Acknowledgement Letter for cleanup work completed to date, but not an official No Further Action letter.

NDEE continues to have significant interest from applicants enrolling properties or sites into the VCP. New properties enrolled include the Citizens Gas Former Manufactured Gas Plant (FMGP) site in McCook (this site was re-enrolled by a new applicant after the previous applicant withdrew from the program in 2020), 48th & Dodge Redevelopment site in Omaha, former Galaxy Laundry site in Grand Island, and former Oak Lake Landfill in Lincoln.

With redevelopment plans on hold for several years due to environmental concerns, Oak Lake Development, LLC enrolled the former Oak Lake Landfill into the VCP so the property can be safely redeveloped.

Investigation activities are ongoing at the Omaha Steel Castings Parish School redevelopment site in Omaha, former Goodyear Lease Location in Lincoln, AltEn site in Mead, International Sensor Systems, Inc. site in Aurora, Citizens Gas FMGP site in McCook, 48th & Dodge Redevelopment site in Omaha, former Galaxy Laundry site in Grand Island, former Oak Lake Landfill in Lincoln , and the Bladen, Bradshaw, and Eustis Former Commodity Credit Corporation (CCC)/U.S. Department of Agriculture (USDA) grain bin sites.

Cleanup activities are ongoing at the Dettmer Lease Property in Auburn, Vishay Dale Electronics site in Norfolk, J.A. Woollam Co., Inc. site in Lincoln, former Farmland Industries

Urea Ammonium Nitrate (UAN) Terminal in Doniphan, Elster American Meter Company site in Nebraska City, West Haymarket Block 4 site in Lincoln, Former AAA Welding site in Omaha, and the Murdock, Utica, and York Former CC/USDA grain bin sites.

Post-remediation monitoring is ongoing at the New Holland site in Grand Island, Nebraska Solvent site in Grand Island, Archer Daniels Midland site in Lincoln, Hoover Manufacturing site in Beatrice, Appleton Electric site in Columbus, and Former Max I. Walker Cleaners – Baker Square site in Omaha. NDEE is currently reviewing Remedial Action Reports for the Lewis and Clark Landing/Heartland of America Park Redevelopment site in Omaha and Tiny Houses site in Omaha.

The left photo shows the excavation at the Tiny Houses site on March 8, 2022; the right photo shows the completed excavation with backfill on March 11, 2022.

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	Progress
KN Energy	Holdrege	4/3/95	Completed 5/1/97
Garvey Elevator	Hastings-West	4/13/95	Deferred to EPA Superfund
American Smelting and Refining Company (ASARCO)	Omaha-Riverfront	2/5/96	Completed 10/11/01
Burlington Northern Santa Fe (BNSF) Railroad	Lincoln-N. Havelock	1/17/96	Terminated 12/4/06
Union Pacific Railroad	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

Voluntary Cleanup Program Sites and Status			
Site	**Location**	**Date**	**Progress**
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
BNSF Railroad	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
BNSF Railroad	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 Railroad 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 Railroad Nebraska Solvent	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**	**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 CCC/USDA 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	Acknowledgement Letter issued 10/1/20
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 – Saddle Creek Redevelopment	Omaha	4/26/16	Completed 8/24/20
Omaha Steel Castings – Parish School	Omaha	3/24/17	Active
Former Textron Turf Care and Specialty Products	Lincoln	10/26/16	Withdrawn 6/11/19

Voluntary Cleanup Program Sites and Status			
Site	**Location**	**Date**	**Progress**
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	Withdrawn 7/16/20
Former Farmland Industries Doniphan UAN Terminal	Doniphan	10/9/2018	Active
Lewis and Clark Landing/Heartland of America Park Redevelopment	Omaha	8/13/2019	Active
Elster American Meter Company	Nebraska City	9/19/2019	Active
Former AmFirst Bank Branch	McCook	11/07/2019	Completed 6/22/20
West Haymarket Block 4	Lincoln	2/4/2020	Active
Former Goodyear Lease Location #7522	Lincoln	7/21/20	Active
Former Max I. Walker Cleaners – Baker Square	Omaha	1/11/21	Active
Former AAA Welding	Omaha	1/11/21	Active
Tiny Houses	Omaha	2/1/21	Active
AltEn, LLC	Mead	6/30/21	Active
Citizens Gas FMGP	McCook	11/6/2021	Active
48th & Dodge Redevelopment	Omaha	12/7/2021	Active
Galaxy Laundry	Grand Island	2/2/2022	Active
Oak Lake Landfill	Lincoln	6/28/2022	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 the presence or potential presence of hazardous substances, pollutants, or contaminants. 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 tetrachloroethene (PCE) used in dry cleaning, benzene from petroleum fuel, and heavy metals such as lead from manufacturing activities.

NDEE's Section 128(a) Brownfields Program receives funding from EPA to offer various investigations and assistance at no cost to eligible applicants. This includes the following services:

- Phase I Environmental Site Assessments (ESAs) provide a review of historical documents and regulatory databases to determine if there are any environmental concerns associated with the past use of a property (e.g., the property was a gas station in the 1950s) and surrounding land use.

- Phase II ESAs are completed when environmental concerns are identified in the Phase I ESA, and include collecting soil, soil gas, and/or groundwater samples to identify if there has been a release to the environment and the initial extent of contamination on-site.

- Asbestos-containing materials, lead-based paint, and mold surveys can be completed on building materials as part of a Phase I ESA, Phase II ESA, or independently.

- Brownfield property inventories help to document all brownfields properties in a corridor, neighborhood, downtown, or other larger area slated for redevelopment.

- Cleanup planning activities (e.g., an Analysis of Brownfield Cleanup Alternatives report) include cleanup options and cost estimates based on future uses and redevelopment plans. Analysis of Brownfield Cleanup Alternatives reports are required to qualify for federal cleanup grants.

- Cleanup grants provide partial assistance for asbestos abatement or cleanup to contain and reduce contamination at a site (e.g., treatment or excavation of contaminated soil). Other cleanup assistance may include planning grants to assist with developing a cleanup plan for a contaminated site.

During the past year, NDEE has performed 17 Phase I assessments, three Phase II assessments, 21 asbestos surveys, 17 lead-based paint surveys, and eight mold surveys. NDEE provided partial cleanup assistance for asbestos removal to three applicants and committed funding for partial cleanup assistance to the City of Lincoln for planning activities related to an urban agriculture project in the Haymarket area.

The NDEE Brownfields Program helped the City of Blue Hill turn the site of a vacant school building containing asbestos into a new aquatic center. Section 128(a) funding was used to cover the costs to complete an asbestos-containing materials survey and to assist with the asbestos removal and disposal costs. After the environmental hurdles were removed, Blue Hill was able to leverage nearly $3 million for the project. The new aquatic center officially opened in the summer of 2021.

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 NDEE's Brownfields 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 NDEE's 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.

The NDEE Brownfields Program held its first in-person workshop following the COVID-19 pandemic in McCook on August 31, 2021. The workshop was titled “Flip it! Tips and Tools for Redeveloping Blighted Properties in Your Community” and included presentations from various resource providers and provided an opportunity for community members to discuss their challenging projects with the experts. The workshop was made possible thanks to collaboration with EPA Region 7, Kansas State University Technical Assistance to Brownfields Program (KSU TAB), McCook Economic Development Corporation, and the Benkelman Community Redevelopment Authority.

Megan Spargo with the Benkelman Community Redevelopment Authority gives a presentation at the McCook workshop on August 31. Ms. Spargo’s presentation highlighted former blighted properties in her community that were successfully cleaned up or redeveloped and discussed how NDEE’s Brownfields Program played a significant part in achieving that goal.

Other outreach events held in FY2022 include:

- **Region 7 Federal Partners Grant Writing Workshop, October and November 2021–** NDEE helped plan and execute a three-part virtual grant writing workshop.

- **South Central Economic Development webinar series, January 2022 –** NDEE’s Brownfields Coordinator was a featured presenter SCEDD’s monthly webinar series called “HomeNE,” which aims to educate communities on available resources and successful strategies used to meet local housing needs. The NDEE Brownfields Coordinator’s presentation, “Yes! A Home can be a Brownfield,” discussed how the NDEE Brownfields Program has assisted Nebraska communities by completing ESAs, building materials surveys, and brownfield inventories on homes and commercial buildings. The webinar also discussed funding available to help with asbestos abatement.

- **KSU TAB webinar, March 2022 –** NDEE again partnered with KSU TAB to hold a live webinar promoting brownfields resources and how the two programs work together to assist in redeveloping blighted properties in Nebraska.

- **Nebraska Brownfields Resources Roadshow, June 2022 -** NDEE partnered with EPA and KSU TAB to hold three Brownfields Resources workshops in a single week in different areas of the state. The roadshow kicked off in Lincoln on June 14, traveled to Minden on June 15, and ended in Chadron on June 17. All three workshops were a great success based on feedback from the attendees and subsequent inquiries and applications for assistance received by NDEE. EPA, KSU TAB, and NDEE made an additional stop in Alliance to meet with city and economic development representatives and University of Nebraska Rural Fellowship program students at the abandoned Alliance Power Plant to discuss potential reuse visions for the plant.

The NDEE Brownfields Program also meets one-on-one with community members as an outreach approach. NDEE, along with KSU TAB and EPA, held three Partnership Resource Review virtual meetings the past year to discuss strategies to help a community develop a competitive EPA 104(k) Brownfields Assessment, Cleanup, or Revolving Loan Fund Grant Proposal, and make communities aware of the funding and technical assistance these programs have to offer. Communities that participated in a Partnership Resource Review meeting included:

- The City of Beatrice
- Southeast Nebraska Development District
- Box Butte Development Corporation including the City of Alliance.

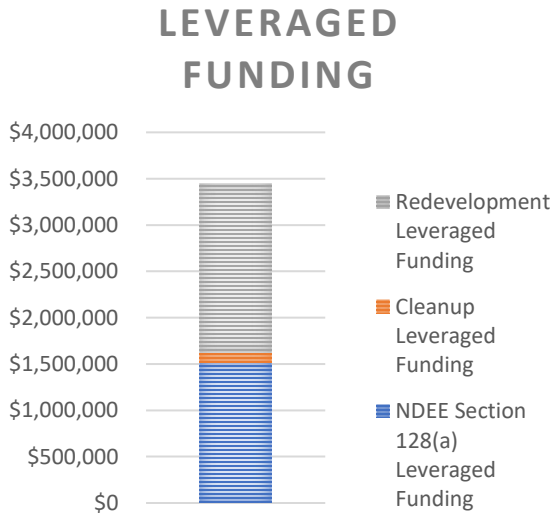
The NDEE Brownfields Program also had separate calls with the following municipalities and organizations to discuss how the Brownfields Program can help bring their projects and vision to fruition:

- Cozad Development Corporation
- Chadron Community Hospital
- Oak Lake Development, LLC
- City of Minden
- Village of Kennesaw
- Village of Winslow
- City of Omaha Planning Department
- inCOMMON Community Development

Outreach efforts by the NDEE Brownfields Program also helped the non-profit, Angel's Share secure a technical assistance grant from the EPA. Angel's Share has been working to transform parts of the former Dana College campus in Blair into a center to accommodate youth who are aging out of foster care. The technical assistance grant will help provide a feasibility study, site planning, and exploration of different use options for the remaining vacant buildings on campus; and will map out all available resources that may assist with the redevelopment financial gaps. Additionally, KSU TAB and the KSU Department of Landscape Architecture and Regional & Community Planning has selected the City of Beatrice and Beatrice Public Schools to be the study area for the 2022 fall semester project. The class spends a semester developing reuse visions for specific brownfield sites. There are typically 4 -5 groups of students, with each group developing their own reuse concepts. The class will be working with the city and the school district to develop reuse ideas for four vacant school buildings.

Leveraged Funding

To facilitate the leveraging of public resources, NDEE's Brownfields Program collaborates with EPA Region 7, KSU TAB, and other partners to identify and make available resources that can be used for brownfields activities. NDEE tracks leveraged resources by evaluating the dollars leveraged, cleanup and redevelopment jobs leveraged, and acres made ready for anticipated reuse. In this Cooperative Agreement period (July 1, 2020 through June 30, 2023), Nebraska has received $1,520,280 and has leveraged $1,926,704 in additional cleanup and



redevelopment funding, 42 cleanup and redevelopment jobs, and 144.65 acres ready for anticipated reuse.

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
- 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.

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 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, Clean Harbors has announced plans to expand the Kimball facility in 2023. Nebraska also 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 Accomplishments

Significant corrective action accomplishments during FY2022 include the reissuance of the Tenneco Automotive Company, Inc. RCRA permit.

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 over 800 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 result of process improvement, the RCRA Section emails confirmations to generators who submit 8700-12 Hazardous Waste notification through the US EPA RCRAinfo system and for contingency plan update submittals mailed in to NDEE. The electronic system helps the department save time and reduce costs.

Program Funding

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

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:

- 107 Large Quantity Generators (greater than 2,200 pounds of hazardous waste generated per month)
- 427 Small Quantity Generators (between 220 and 2,200 pounds generated per month)
- 1,449 Conditionally Exempt Small Quantity Generators (less than 220 pounds generated per month)
- 1 Hazardous Waste Incinerator Facility
- 3 Treatment, Storage or Disposal Facilities
- 19 Hazardous Waste Transporters

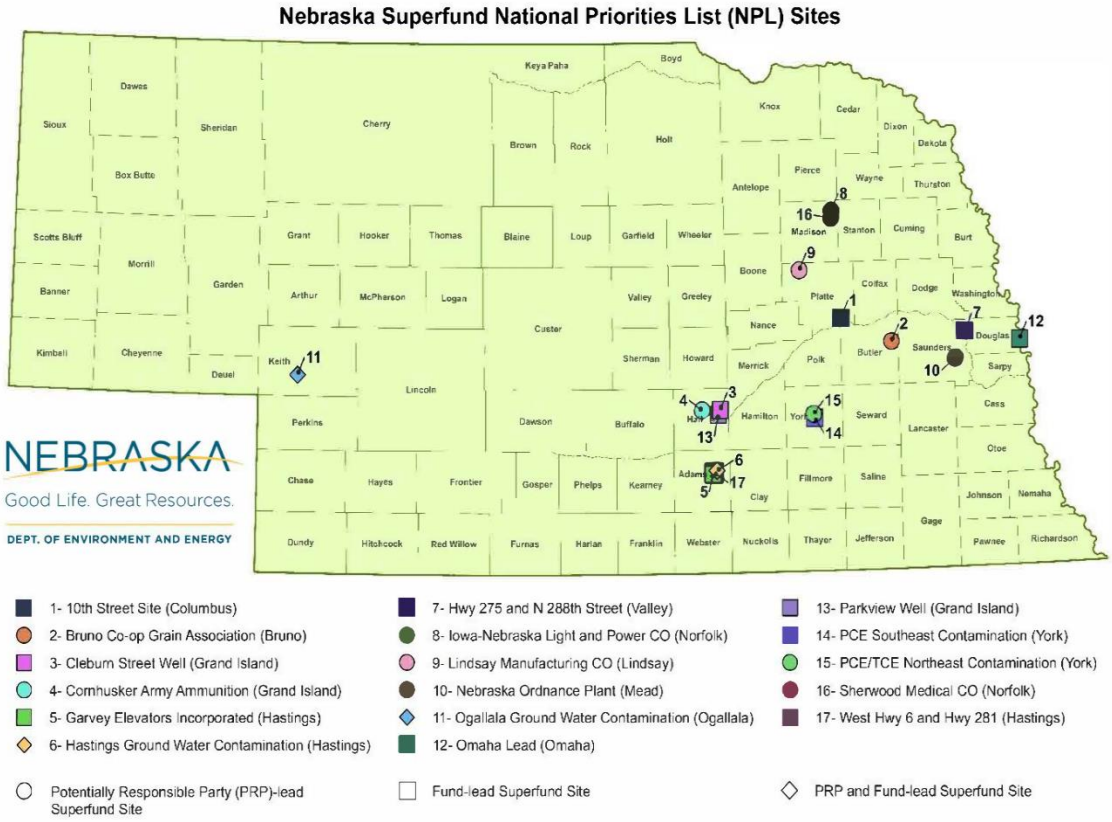
Location by County of Large Quantity Generators in Nebraska Regulated Under RCRA			
Buffalo 4	Hall 4	Otoe 1	Seward 3
Cuming 1	Hooker 1	Phelps 1	Stanton 1
Cheyenne 1	Holt 2	Platte 7	Washington 2
Dakota 2	Kimball 1	Red Willow 1	Wayne 1
Dodge 2	Knox 1	Sarpy 7	York 1
Douglas 29	Lancaster 26	Saunders 3	
Gage 1	Madison 2	Scotts Bluff 2	

Summary of FY2022 Activities		
Compliance Assistance	**State**	**EPA**
On-site Visits	2	*
Direct Assistance Contacts	785	*
Public Outreach Presentations (total 245 in attendance)	4 / 245	*
Complaints Received	14	*
Complaints Investigated	14	*
Complaints Closes	14	*
		**Data not available*
RCRA Inspections		
Land Treatment Facilities	0	0
Treatment, Disposal, and Storage Facilities	2	1
Comprehensive Groundwater Monitoring Evaluations	0	0
Operation and Maintenance Inspections	0	0
Facility Self-Disclosure	0	0
Large Quantity Generator	12	1
Small Quantity Generator	8	2
Conditionally Exempt Small Quantity Generators	3	4
Transporters	0	0
RCRA Permitting		
Closure Plans Finalized	1	0
Permits Issued/Renewed	1	0
Modifications	2	0
EPA Corrective Action Orders	0	0
RCRA Record Reviews		
Financial Assurance Closure/Post Closure	11	0
Corrective Action	17	0

Superfund Program

Thousands of contaminated sites exist nationally due to hazardous waste being improperly managed. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) became federal law in 1980 to clean up these sites, which 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 under CERCLA. Sites in the Superfund program that are listed 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 EPA, with concurrence from the State of Nebraska, determines whether a site should be listed on the NPL. Nebraska currently has 17 active NPL sites. One site, the Waverly Groundwater Contamination Site, was removed from the NPL on November 20, 2006, upon achieving the cleanup goals for the site. Thirteen of the sites are in the cleanup phase and four sites are relatively new to the NPL and are in the site study stage.



Under the Superfund program, EPA has the authority to mandate the parties responsible for the contamination to either perform the cleanup or provide reimbursement for EPA-led cleanup. If the responsible parties are no longer in business or cannot be identified, then EPA has the authority to finance and perform the cleanup itself. State cost obligations occur when the responsible party lacks the financial resources so federal funds are used to pay for the cleanup.

The investigation and remediation of contaminated sites under CERCLA are the primary responsibility of EPA and other federal agencies. NDEE participates in the Superfund process by serving as a technical support agency to EPA and as the environmental representative for the State of Nebraska. This investigation and remedial work at Nebraska Superfund sites make a visible and lasting difference in communities across the state, giving people healthy places to live and work. NDEE provides technical assistance to EPA Superfund efforts across two programs: the Superfund Site Assessment Program and the Superfund Management Assistance Program.

Superfund Site Assessment Program

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. It is also becoming more common to investigate sites for potential vapor intrusion from contaminated soil or groundwater.

Photo courtesy of the Minnesota Pollution Control Agency

What is Vapor Intrusion?

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

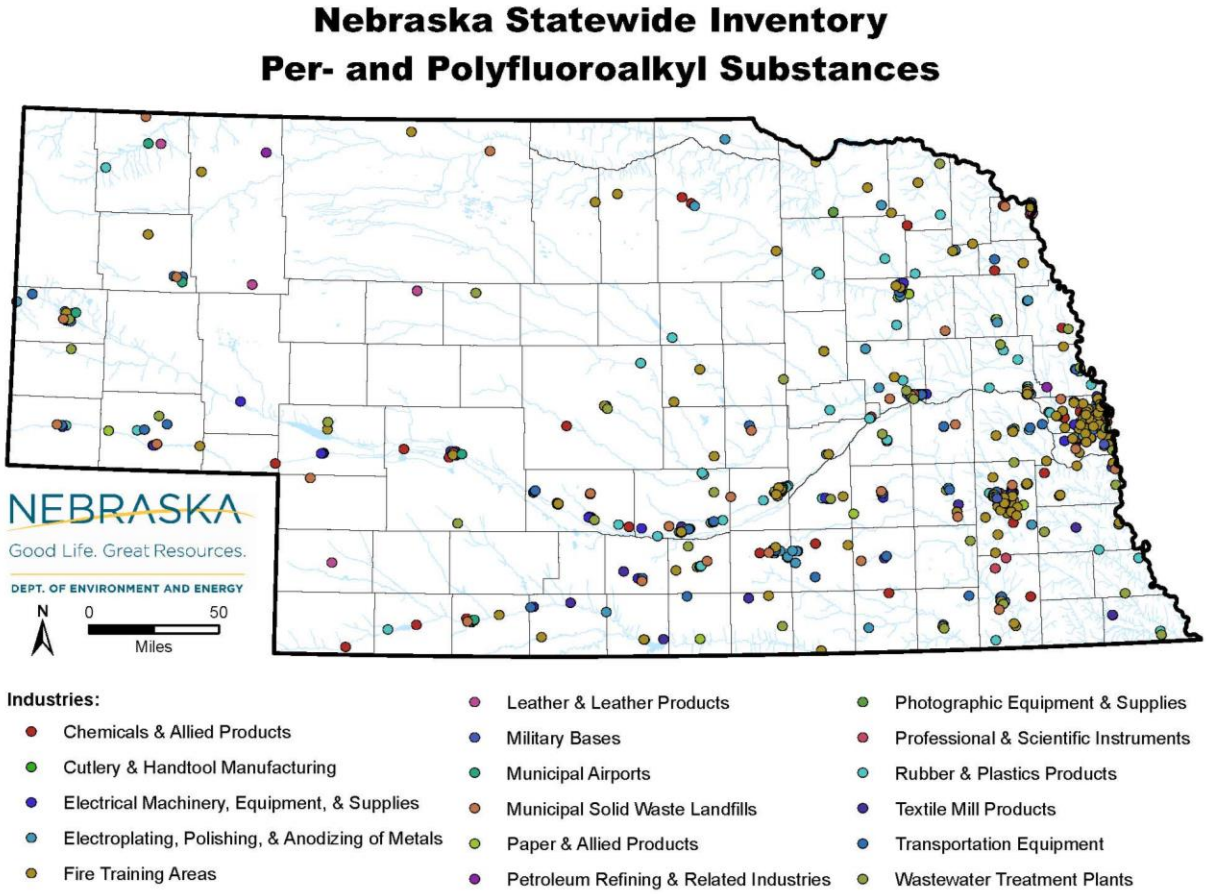
Site assessment steps:

1. Pre-CERCLA 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 Inspection. This step 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 Inspection is conducted.
4. Expanded Site Inspection. This step is performed at large and/or complex sites to collect additional soil and groundwater samples to further define the extent of contamination.

5. Site Re-Assessment. This step is performed at some sites 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 three Pre-CERCLA Screening Assessments, six Abbreviated Preliminary Assessments, three Site Inspections, two Expanded Site Inspections, and seven Site Re-Assessments.

NDEE often uses inventories to guide its prioritization of site assessment projects. In 2017, NDEE compiled a Statewide Inventory of Per- and Polyfluoroalkyl Substances (PFAS). PFAS are a large group of man-made chemicals that have been used in consumer products, industrial processes, and firefighting foams since the 1940s. PFAS are resistant to heat, oils, stains, grease, and water, and break down very slowly over time. These unique properties contribute to their wide use and persistence in the environment. The figure below illustrates the locations of industries present across the state that potentially used or manufactured PFAS based on the 2017 Statewide Inventory.



EPA has identified PFAS as contaminants of emerging concern that can have adverse health effects if found in drinking water supplies. One of the main uses of PFAS is in aqueous film-forming foam (AFFF), which is a commercial surfactant solution used to extinguish hydrocarbon fires. The Federal Aviation Administration requires the storage, use, and testing of AFFF firefighting foams at all airports that have a Federal Aviation Regulation Part 139 Airport

Operating Certificate. Releases of AFFF to the environment may have occurred during routine training and testing exercises, or as a result of a discharge from actual aircraft rescue situations, fixed fire protection (aircraft hangar deluge) systems, or the removal and replacement of AFFF concentrate from vehicles during maintenance. Additionally, residual AFFF/ AFFF wastewater may have drained to existing infrastructure on the airport property to be directed to a wastewater treatment facility. In Nebraska, nine municipal airports have a Part 139 Airport Operating Certificate. During the past two years, NDEE completed Abbreviated Preliminary Assessments at all nine of these sites to evaluate any potential impacts to the environment.

Other high priority processes and facilities identified in the Statewide Inventory include metal and chrome plating facilities and fire training areas. During the past year, NDEE evaluated three sites to determine whether PFAS and VOCs were present in groundwater downgradient of industrial areas with electroplating facilities and fire stations. Fire training areas are areas of interest that will be investigated as Pre-CERCLA Screening Assessments in the future.

NDEE continued to work with the EPA Region 7 Superfund Site Assessment and Removal Programs to investigate the potential for vapor intrusion near former dry cleaners in Bellevue and Norfolk. At both of these sites, tetrachloroethene (PCE) and trichloroethene (TCE), which were commonly used in the dry-cleaning industry, were found in soil and groundwater. In Bellevue, vapor mitigation systems have been 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. The site in Bellevue is proposed for the NPL.

Vapor mitigation system at a residence; view is of the protective cover (left) and installed fan (right).

NDEE also assists EPA Region 7 in determining when no further action is warranted at a site in the Superfund Site Assessment Program. During the past year, NDEE received a request from EPA to archive six sites from the Superfund Active Site Inventory. NDEE is continuing its review of these sites to ensure that there will be no impact to human health and the environment if no further remedial action is planned.

Superfund Management Assistance Program

The Superfund Management Assistance program provides management and technical support to EPA at 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.

EPA 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 Nebraska sites on the National Priorities List, seven are being addressed by the responsible party. The remaining ten sites either are or will be partially or fully financed by Federal and State funds (i.e., “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 ten years of the project. State cost obligations may be waived for a portion of the cleanup if EPA uses funds derived from a settlement (or other instrument) with potentially responsible parties or if funds are provided by the Infrastructure Investment and Jobs Act (IIJA) of 2021. After the initial ten 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 FY2022, NDEE’s cost share was $551,278. Future projections of these costs are $876,689 in FY2023, $1,029,223 in FY2024, and $1,390,912 in FY2025.

During the last year, NDEE paid 100% of costs related to cleanup at the Columbus 10th Street site, Hastings Second Street Operable Unit (OU) 20 subsite, Ogallala OU 2 subsite, and Parkview Well site. NDEE expects taking over operation and maintenance of the cleanup at the Cleburn Street site in Grand Island around July 1, 2023.

- At the Columbus 10th Street site, NDEE completed the first Adaptive Management Study pilot in EPA Region 7. This was a collaborative effort with EPA and the City of Columbus to determine when it may be possible to shut down the groundwater extraction and treatment system and utilize an in-situ treatment remedy to clean up the remaining groundwater contamination. NDEE is currently completing a pilot study for in-situ treatment. NDEE also completes ongoing groundwater sampling, vapor intrusion sampling, and vapor mitigation system inspections.
- At the Hastings Second Street OU 20 subsite, NDEE decommissioned the in-well aeration system. The in-well aeration system was used as an interim remedy to treat groundwater contamination, but technical and operational issues prevented NDEE

from operating the system. This resulted in a cost savings of ~$19,000 per year to NDEE. NDEE also completes ongoing groundwater sampling and in-situ treatment.

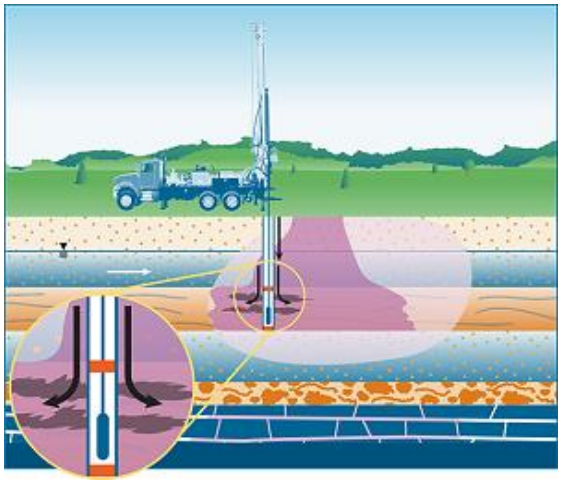


Image courtesy of the Interstate Technology Regulatory Council

What are In-Situ Injections?

In-situ remediation treats contamination "in place" using chemical or biological approaches. This can be done below ground surface and with minimal disturbance by injecting the chemical or biological substrate directly into the groundwater. The substrate is injected at the appropriate depths and locations to allow it to come

- At the Ogallala OU 2 subsite, NDEE is completing ongoing groundwater sampling, vapor intrusion sampling, and vapor mitigation system inspections.
- At the Parkview Well OU 1 subsite in Grand Island, NDEE is operating and maintaining a groundwater extraction and treatment system. NDEE also completes ongoing groundwater sampling, vapor intrusion sampling, and vapor mitigation system inspections.

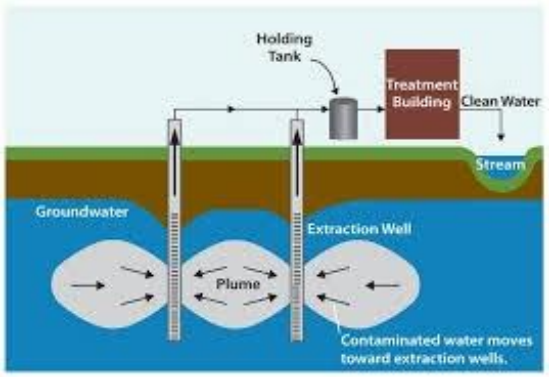


Image courtesy of the Environmental Protection Agency

What is Groundwater Extraction and Treatment?

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.

In FY2023, NDEE will be paying 10% of costs related to cleanup at the Garvey Elevator OU 1 subsite in Hastings. Within the next five years, NDEE expects that IIJA funds will be used for cleanup at the Garvey Elevator OU 1 and OU 2 subsites, Hastings Second Street OU 12 subsite, Parkview Well OU 2 subsite, West Hwy 6 OU 1 and OU 2 subsites in Hastings, and PCE Southeast OU 1 and OU 2 subsites in York. The expected IIJA funds is expected to result in a cost savings of $4,437,377 in NDEE's cost share.

The Omaha Lead site is associated with two former lead-processing facilities, American Smelting and Refining Company, Inc. (ASARCO) and the Aaron Ferer & Sons Company (later the Gould Electronics, Inc.) lead battery recycling plant. Both the ASARCO and Aaron Ferer/Gould facilities released lead-containing particulates to the atmosphere from their smokestacks, which were deposited on surrounding residential properties. NDEE concurred with the partial delisting of 19 properties this year; the partial deletion rule allows EPA to delist portions of NPL sites provided that deletion criteria are met. This allows portions of a site to be available for productive use before cleanup of the entire site has been completed. To date, a total of 2,281 partial deletions from the NPL have been made at the Omaha Lead site. Overall, 13,464 properties in Omaha have been remediated with just 573 properties remaining to be cleaned up.

Below is a list of the 17 active NPL sites. Below each name is an EPA web address that provides more detailed information about the site.

Active National Priorities List Sites in Nebraska

Cornhusker Army Ammo Plant (Grand Island)

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

Hastings Groundwater Contamination (Hastings)

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

Lindsay Manufacturing Co. (Lindsay)

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

Nebraska Ordnance Plant (Mead)

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

10th Street Site (Columbus)

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

Cleburn Street (Grand Island)

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

Ogallala Groundwater Contamination Site (Ogallala)

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

Bruno Coop Association (Bruno)

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

Sherwood Medical (Norfolk)

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

Omaha Lead Site (Omaha)

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

Parkview Well Site (Grand Island)

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

Garvey Elevator (Hastings)

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

West Highway 6 & 281 (Hastings)

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

York PCE/TCE Northeast Contamination

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

York PCE Southeast Contamination

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

Iowa-Nebraska Light and Power Co. (Norfolk)

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

Old Highway 275 and North 288th Street (Valley)

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

Federal Facilities

Defense and State Memorandum of Agreement (DSMOA) Program

Under the DSMOA program, NDEE oversees investigation and cleanup of munitions and hazardous substances at current federal facilities, such as Offutt Air Force Base, and formerly used defense sites (FUDS), such as the former Nebraska Ordnance Plant near Mead. The cleanup efforts are conducted by a Department of Defense component, such as the Air Force or the Army Corps of Engineers. Investigation and cleanup of hazardous substances follow the Superfund CERCLA process. Some sites must first be investigated and cleared of munitions and unexploded ordnance before CERCLA work can begin. NDEE also reviews previous no-further-action decisions for facilities and if needed, provides non-concurrence with recommendations for further work. During FY2022, investigation and cleanup activities for hazardous substances were conducted at 2 active sites and 12 formerly used defense sites, and military munitions response activities were performed at 5 sites.

PFAS were found at Offutt Air Force Base and the Lincoln Air National Guard Base prior to FY2022; however, to date no threats or impacts to public or private drinking water supplies have been found. During FY2022, follow-up investigations were conducted at Offutt Air Force Base.

Former USDA/CCC Grain Storage Facilities

Nebraska contains 332 former U.S. Department of Agriculture/Commodity Credit Corporation (USDA/CCC) grain storage facilities. The soil, groundwater, and soil vapor at and near many of these former grain storage facilities is contaminated with carbon tetrachloride, which was commonly used as a grain fumigant during their operation. The USDA/CCC is

currently prioritizing, investigating, and cleaning up these former grain storage facilities, and installing vapor mitigation systems in occupied buildings as needed. Investigation and cleanup follow the Superfund CERCLA process. NDEE oversees these efforts under a Nebraska Voluntary Cleanup Program agreement with the USDA. During FY2022, remedial actions were conducted at three sites, investigations were ongoing at 3 sites, new groundwater investigations were started at 4 sites, and vapor intrusion investigations were begun at 30 sites.

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 FY2022	
Municipal Solid Waste Disposal Areas (Landfills)	23
Solid Waste Compost Sites	8
Transfer Stations	36
Materials Recovery Facilities	4
Construction & Demolition Waste Disposal Areas	32
Delisted Waste Disposal Area	1
Processing Facility	2
Fossil Fuel Combustion Ash Disposal Areas	7
Total	113

The following table indicates the number of inspections, complaints and permitting-related activities that the program was involved with in FY2022:

Summary of FY22 Activities	
Compliance Assistance	
Facility Inspections (General)	120
Facility Closure Inspection	2
Facility Construction Inspections	0
Facility Comprehensive Renewal Inspections	21
Complaints Received	139
Complaints Investigated	139
Complaints Closed or Referred	126
Permitting	
New Permits Issued	0
Permit Renewals	21
Major Permit Modifications	3
Public Hearings	0
Permits Transferred	0
Financial Assurance Reviews	182
Facilities Closed	2

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 FY2021, 14 operating and 4 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 FY2021, 16 operating and 3 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 FY2021 investigations or remedial measures were continued at 4 active and 2 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 FY2021, groundwater investigations continued at one site, and remedial actions continued at 9 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, FY2022 Permitting	
Renewed Hauler Permits	23
New Permits Issued	1
Permits Expired	2
Financial Assurance Reviews	10

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.

CHAPTER 6:
Water Programs

The goal of the Water Programs is to protect the surface water and groundwater resources for all purposes in Nebraska. This chapter describes the programs administered by the Water Programs, 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.

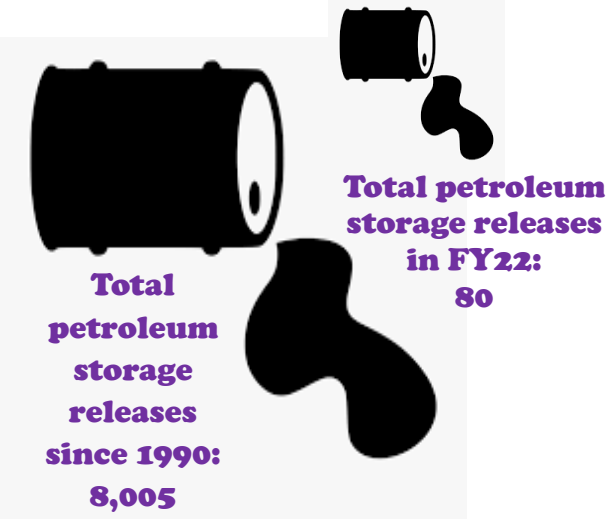
Petroleum Remediation Program

Activities regarding the Petroleum Remediation Program involve two interrelated areas:

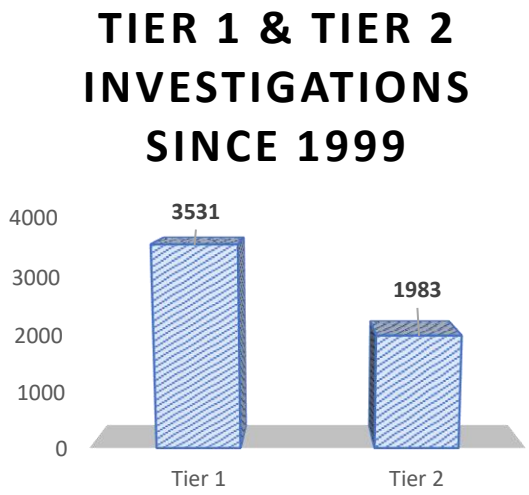
1. Overseeing the **investigation and cleanup** of petroleum contamination resulting from leaking above ground and underground storage tanks as well as other sources such as pipeline leaks and transportation spills; and
2. Administering a **financial assistance program** for persons responsible for investigation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

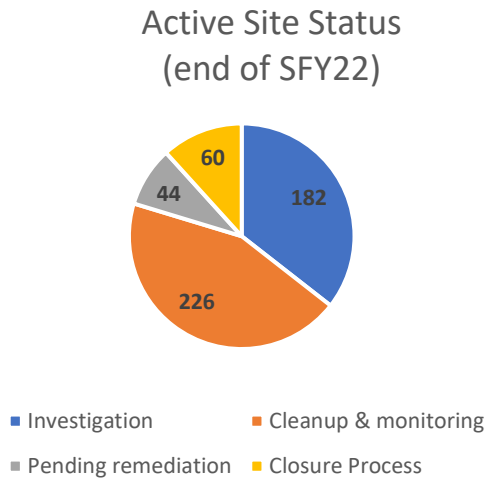
Investigation and Cleanup

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.



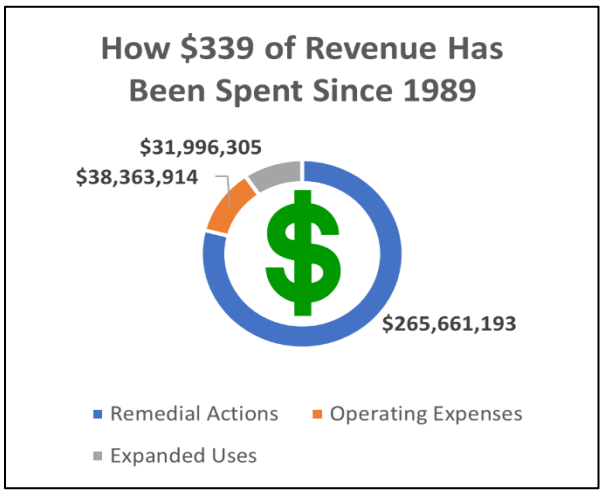
The program has incorporated Risk-Based Corrective Action (RBCA) procedures into regulations and accompanying guidance. The RBCA process allows for the evaluation of all petroleum release sites based on the risk they pose to human health and the environment. Those that pose no significant risk are closed; those that pose significant risk are prioritized for further work. Since 1999, the program has been collecting site-specific information needed for Tier 1, the first step in the RBCA process. Sites that fail Tier 1 are activated for Tier 2, which is a more detailed investigation and the next step in the RBCA process. In FY 2022, 95 Tier 1 investigations and 26 Tier 2 investigations were initiated. If sites fail Tier 2, they are normally scheduled for cleanup.





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 web site.

Revenue was $12.3 million in FY22. During the year, NDEE reimbursed about $3.3 million to Responsible Persons for work done at 119 different sites, and $7.5 million was spent to clean up orphan sites. An additional $551,278.38 of revenue was transferred to NDEE’s Superfund program, as directed by legislation passed in 2017. As of June 30, 2022, over $265 million total has been spent on site cleanups.

Responsible Person Sites

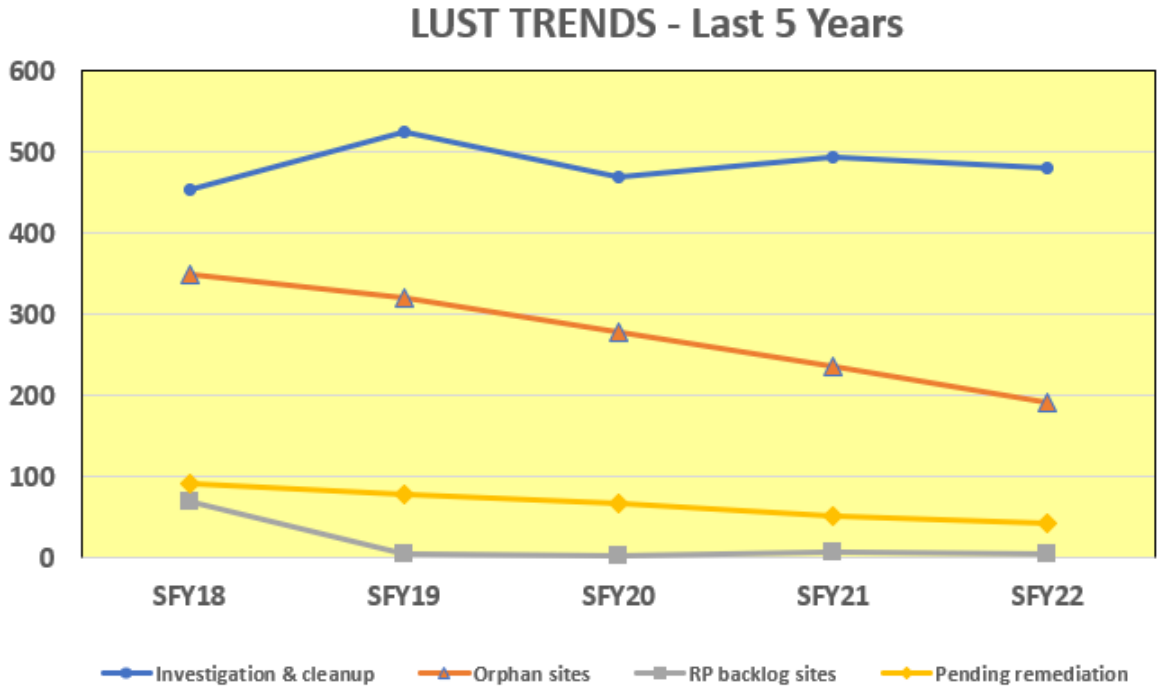
For the last several years, there have been hundreds of sites where the responsible person is known, but NDEE did not require work to begin. These were lower priority sites, and there was not sufficient funding to reimburse potential costs under the Reimbursement Fund. The sites were placed on a waiting 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, they are worked on immediately with no waiting required. This helps speed property transactions and redevelopment.

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 FY 2022, 56 orphan sites were activated for investigation and/or cleanup using State contractors. At the end of FY 2022, there were 194 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, 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 $6.6 million in new equipment costs and allowed that money to be used for cleanup of additional sites.

Over $6.6 million since 2005

Voluntary Remedial Action

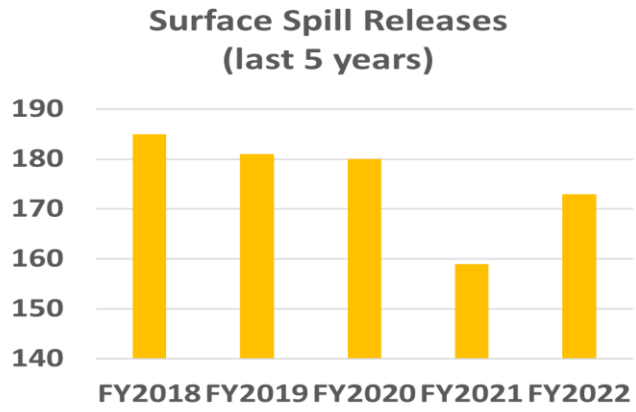
Tank owners can perform voluntary remedial action prior to NDEE's approval of their plans and still be eligible for reimbursement consideration in the future. This allows sites to move forward on their own initiative. To date, 235 suspended or backlogged leaking underground storage tank sites have been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

Surface Spills

NDEE has long been aware that 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 and/or surface water 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, as well as many trucking companies and private citizens.

The brochure, in addition to further information, is also available on our website at http://dee.ne.gov/NDEQProg.nsf/OnWeb/PSS.



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

Sale & Purchase of Retail Petroleum Convenience Store

The 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.

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://dee.ne.gov/NDEQProg.nsf/OnWeb/LUST.

Water Quality Monitoring and Assessment Programs

Surface Water Assessment Programs

Niobrara River in western Cherry County

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 six-year rotating basin monitoring strategy. Monitoring data are used to document existing water quality conditions, assess the support of beneficial uses (such as aquatic life, recreation, and public drinking water supply), and prioritize water quality problems. Current monitoring partners include the Natural Resources Districts (NRDs), Nebraska Public Power District (NPPD), U.S. Army Corps of Engineers (USACE), Nebraska Game and Parks Commission (NGPC), University of Nebraska-Lincoln (UNL), Central District Health Department (CDHD), United States Geological Survey (USGS) and United States Environmental Protection Agency (USEPA).

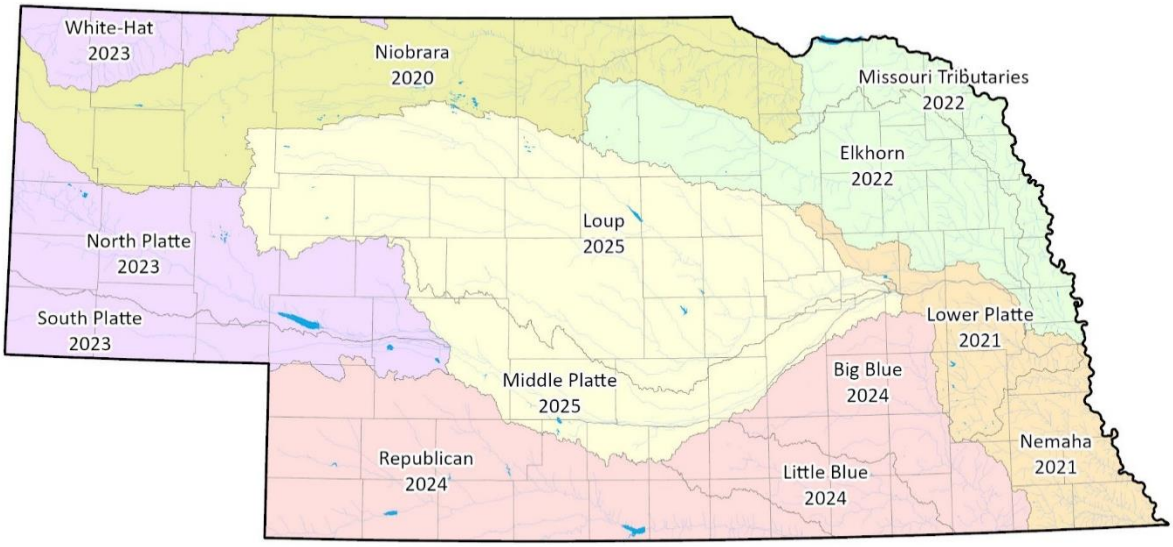
Each year, surface water samples are collected at hundreds of locations across the state, resulting in over 36,000 individual field measurements and laboratory analyses.

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 as follows. Additionally, a more detailed overview of the programs is provided in the Department's biennial publication Water Quality Monitoring Programs Report available online. http://dee.ne.gov/Publica.nsf/pages/WAT344

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.
- Fourteen parameters analyzed at each sampling location.
- In 2022, NDEE sampled 42 sites within the Elkhorn River and Missouri Tributaries basins.

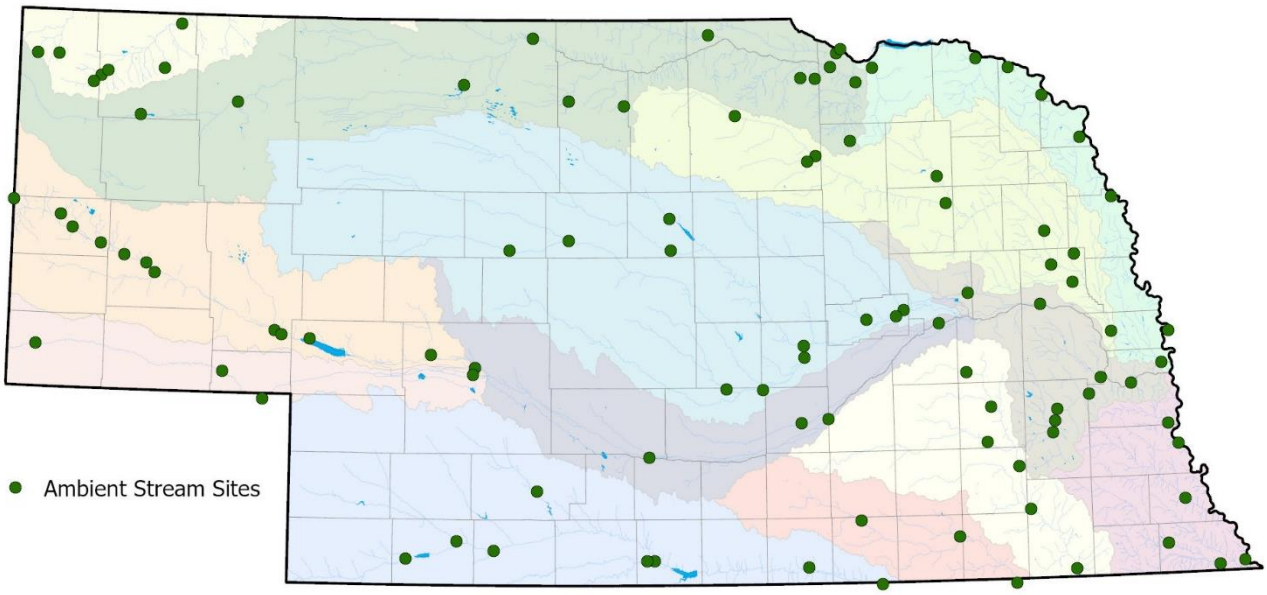
Six-year Basin Rotation Monitoring Schedule



Ambient Stream Monitoring Program

- Network of 101 fixed stations.
- Main stem and tributary streams.
- Thirty-four parameters analyzed at each sampling location.
- Samples are collected monthly, year-round.
- Long-term changes to water quality can be assessed.

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 56 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 are reported each week during the summer on the BeachWatch Listserv and NDEE's web site. When necessary, Health Alerts are issued and 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.

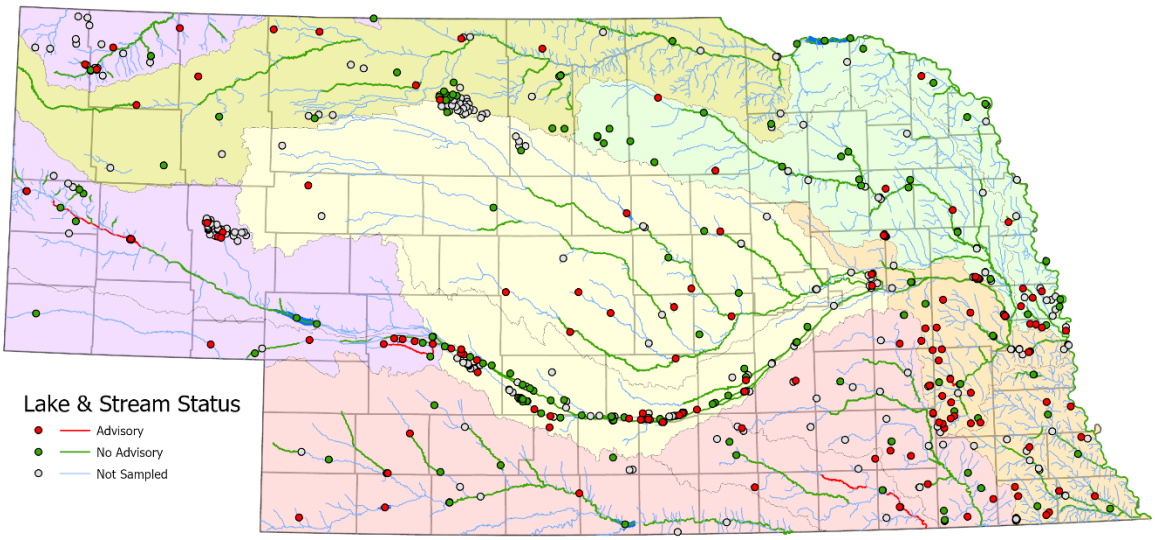
Stream Biological Monitoring Program

- Diversity and numbers of resident aquatic macroinvertebrate and fish communities are evaluated to assess the overall health of streams.
- Sites chosen with a probabilistic sampling design within the framework of the basin rotation schedule.
- Forty sites (5 completed in partnership with NGPC) were sampled in 2022 within the Elkhorn and Missouri Tributaries River basins.

Fish Tissue Monitoring Program

- Assess fish tissue for toxins, such as mercury and polychlorinated biphenyl compounds (PCBs).
- Current fish tissue consumption advisories at 137 locations (130 lakes and 7 river/stream segments).
- In 2022, 29 lakes and 6 river and stream locations were sampled within the Elkhorn and Missouri Tributaries basins.
- The most recent report is online at http://dee.ne.gov/publica.nsf/pages/WAT341

Lake and Stream Fish Consumption Advisory Locations in Nebraska Through 2022



Ambient Lake Monitoring Program

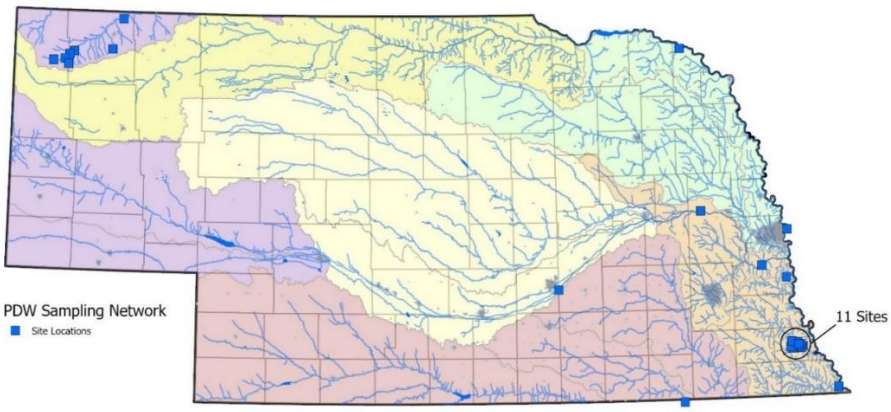
- Data from 24 trend lakes (sampled every year) and 14 basin lakes (sampled according to basin rotation schedule) were collected monthly during May-September in 2022.
- Nineteen additional trend lakes are sampled for this program by staff from the USACE and the Lower Loup and Nemaha NRD's.
- Fourteen parameters analyzed at each lake.
- Depth profile data are taken at deep water and mid-lake locations.
- Data are used to evaluate water quality suitability for fish and aquatic organisms to survive and reproduce.
- Long-term changes to water quality 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 sites of many of the complaints.
- Sixteen fish kills investigated from July 1, 2021, to June 30, 2022: 11 were from low dissolved oxygen levels, 3 from disease/parasite issues, 1 from a pollutant spill and 1 resulted from an unknown cause.
- 126 complaints of surface water pollution were taken by the Monitoring Section in the last year, many were forwarded to other NDEE programs.

Public Drinking Water Special Study

- Title 117 – Nebraska Surface Water Quality Standards (NSWQS) defines the Public Drinking Water (PDW) designation as "These are surface waters which serve as a public drinking water supply. These waters must be treated (e.g., coagulation, sedimentation, filtration, chlorination) before the water is suitable for human consumption. After treatment, these waters are suitable for drinking water, food processing, and similar uses."
- Goal to develop a dataset that will allow NDEE to assess all stream segments that have the PDW designation. This will ensure sufficient data is collected to determine if a stream segment is impaired by pollution, as well as potentially identify whether the pollution source is from groundwater or surface water.
- Atrazine, nitrate/nitrite, arsenic, manganese, uranium and selenium are monitored monthly with the collection of surface water samples at 26 stream location sites statewide.



NRD Watershed Special Studies

- NDEE has partnered with several NRDs on Watershed Special Studies with strategic plans to monitor the sources and quantities of pollutants entering these systems from specific sub-watersheds.
- Information gathered allows a complete assessment of stream segments where data is insufficient to determine if all designated uses are met.
- Allows finer calibration of predictive models to allocate pollutant loads to specific sub-watersheds and to quantify load reductions from sub-watershed conservation projects.
- Sampling partners of Watershed Special Studies in 2022 include: Lewis and Clark NRD – Bow Creek Special Study, Lower Platte North NRD – Wahoo Creek Special Study, Lower Big Blue NRD – Turkey Creek and Indian Creek Special Studies and Lower Platte South NRD – Twin Lakes Special Study.

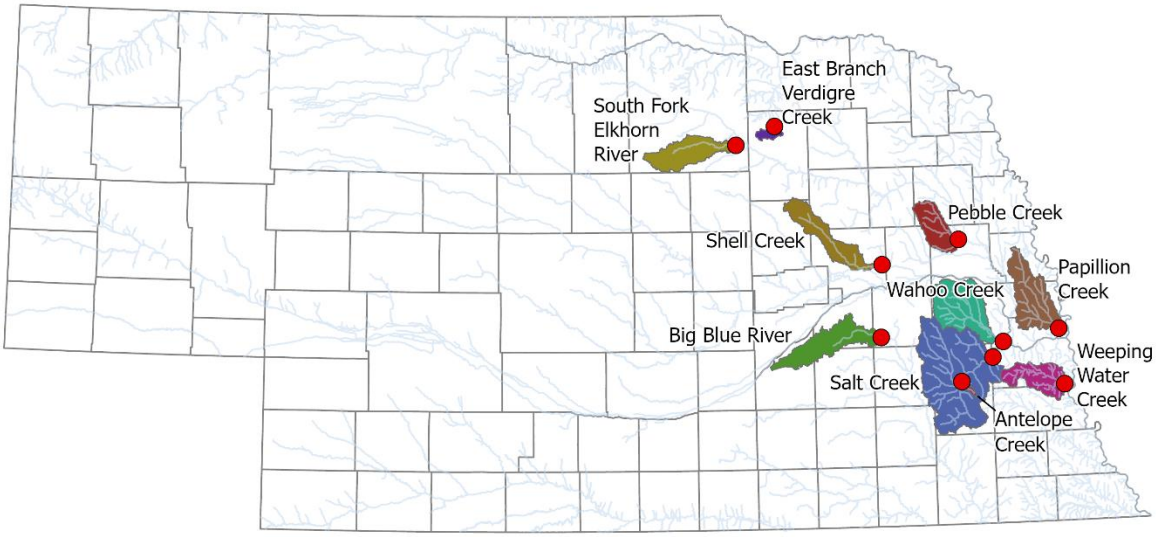
Regional Monitoring Network

- Collaboration between the USEPA and numerous states, tribes, and other organizations to collect continuous stream discharges and temperatures and other chemical and biological data.
- Data are used as baselines for long term comparisons of stream condition.
- Having many sensors deployed nationwide that collect continuous data allows USEPA and other partners to detect significant yet subtle trends in stream condition.
- NDEE has been monitoring 7 streams since May 2017.
- Each location has a sensor that collects water level and temperature every thirty minutes, typically bolted to a post driven into the stream bottom
- Each of the study locations is also sampled as part of the NDEE Ambient Stream Monitoring Program.

Stream Pesticide Special Study

- Pesticides have the potential to cause unintended consequences to non-target organisms in streams and rivers.
- Fifty-eight substances were analyzed from monthly water samples from May – August 2022 from ten Nebraska streams that are also part of the NDEE Ambient Stream Monitoring Program. Substances will include neonicotinoid and pyrethroid insecticides, strobilurin and azole fungicides, and known degradation products.
- The same substances will be analyzed from sediment samples taken in June and August.
- Benthic macroinvertebrates will also be sampled in June and August.
- Taken together, the study will provide estimates of the potential toxicity of both the water and sediments throughout the summer. Actual samples of living organisms will be compared to toxicity estimates.

Stream Pesticide Special Study Sample Locations and Upstream Watersheds



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 2020 Water Quality Integrated Report, which was approved by the USEPA in June 2021, is available on NDEE's web site at http://dee.ne.gov/Publica.nsf/Pages/WAT352 Work on the 2022 Integrated Report is underway and expected to be completed by the end of calendar year 2022.

Groundwater Assessment Programs

Groundwater Quality Monitoring Report

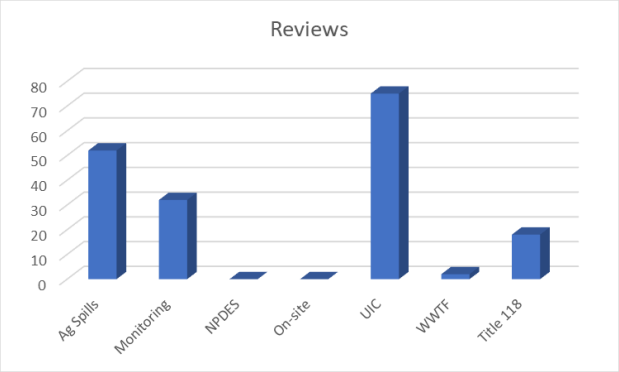
The Groundwater Quality Monitoring Report summarizes the water quality monitoring efforts of the Natural Resources Districts, NDEE, and other state, local and federal agencies. The 2021 Groundwater Quality Monitoring Report can be accessed on the NDEE website at http://dee.ne.gov/Publica.nsf/PubsForm.xsp?documentId=EEF68D78113F20B3862587D000707652&action=openDocument. This year's report was mainly a user's guide for the newly released Nebraska Groundwater Quality Clearinghouse (Clearinghouse). The statistics and maps showing nitrate-nitrogen groundwater monitoring results were all created using the Clearinghouse. The Clearinghouse contains 40 more analytes and almost 1 million more samples than the previous database. This data is accessible to the public as the Nebraska Groundwater Quality Clearinghouse at http://clearinghouse.nebraska.gov.

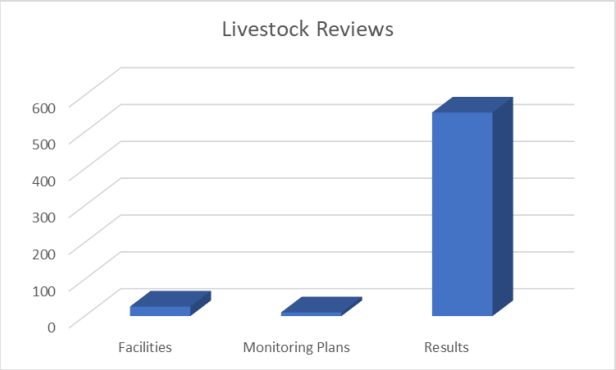
Hydrogeologic Studies and Reviews

The Groundwater Section is responsible for hydrogeologic review of various NDEE projects to determine possible effects on groundwater quality and to recommend possible courses of action. These reviews are completed for programs at NDEE that address leaking underground storage tanks, surface spills, underground injection control, wastewater treatment facilities,

septic systems, NPDES permits, livestock waste control facilities, and for outside entities, such as the Natural Resources Districts' Groundwater Management Plans

In addition, the Groundwater Section performs reviews and oversees remediation if a situation does not fall under another agency program and is of environmental significance. Section 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, which 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 reviews and issues 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, developing monitoring plans and contingency plans to provide alternate water supplies and site new wells. One hundred eighteen (118) community water supplies have approved Wellhead Protection plans as of August 31, 2021.

In 2019, NDEE began using the Groundwater Evaluation Tool (GET) to model WHP areas for Nebraska's Public Water Systems (PWS). 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. 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 SFY2022, Source Water Protection funds were distributed to the following public water systems: Aurora and Central City. The total amount awarded was $98,550.

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 (DWPMP) that proactively address nonpoint source contamination. SWP grant funds (from the Drinking Water State Revolving Fund) are used to develop the plans, encourage community involvement through stakeholder groups, and put on public meetings to promote the projects. Alternative 9-Element Watershed Management Plans (also known as Drinking Water Protection Management Plans (DWPMPs)) are developed and implemented under the SWP to address nonpoint source pollution issues that affect water quality. They are non-regulatory, community-based plans that provide an implementation plan for protecting drinking water by reducing groundwater contamination. Approved 9-element watershed management plans allow project sponsors to apply for nonpoint source pollution program (319) grants from NDEE. These plans provide more funding and longer-term grants (five years) than the Source Water Protection Grants are able to.

These plans bring together Natural Resources Districts (NRDs), the Natural Resource Conservation Service (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. Since then, four additional plans have been accepted and more are in development.

The 2018 Farm Bill dedicated 10% of total conservation funds (with the exception of Conservation Reserve Funds), to be used for source water protection each year. NDEE worked with the NRCS to develop the priority areas in Nebraska where funds are 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 NRD groundwater management areas (Phases I - IV) that include WHP areas. A Phase I area covers an entire NRD district. In specific areas within an NRD where nitrate reaches a determined threshold, 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 producers need to complete an educational requirement such as nutrient management or fertilizer application training. Phase II-IV may also require that certain Best Management Practices (BMPs) may be required such as split application of fertilizer, cover crops, or not applying fertilizer in the fall for example. 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.

The farm bill helps many Nebraska communities enact voluntary 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

This program is tasked with inspecting all domestic wells and 25% of all other wells drilled in the previous calendar year. Program personnel include three inspectors and one administrative assistant. This is the second year the inspectors are using iPads equipped with GPS and mapping software to assist in completing inspections and have already inspected over 37% of the wells for the year.

Starting July 1, 2021 all licensing tasks were moved to the NDEE Water Well Standards Program. The Program is responsible for licensing and regulating over 800 licensed water well professionals which includes administering examinations on a quarterly basis.

Advising 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

The stated public policy of Nebraska related to water quality includes conserving water and to protect and improve the quality of water for human consumption, wildlife, fish and other aquatic life, industry, recreation, and other productive, beneficial uses (Neb. Rev. Stat. 81-1501(1)). NDEE carries out this important mandate, in part, through water quality planning along with water quality standards.

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
- 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).

Nebraska's previous triennial review was conducted in 2019, and the current triennial review process is underway. Updates to the standards will not be proposed until next year; however, the current 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 2020 Integrated Report was approved by EPA in

June 2021 and is available on NDEE's website. The draft 2022 Integrated Report is currently under review.

The following table summarizes NDEE's current work in this area. A comprehensive list of approved TMDLs for Nebraska is available on NDEE's website

IR Category	TMDL/5-alt Name	# of Waterbodies	Pollutant	Status
4a				
	Republican River Basin	5	*E. coli*	TMDL under development, targeted for completion in Spring 2023.
5-alt[1]				
	Willow Creek Reservoir	1	TN/TP	Lower Elkhorn WQMP approved by EPA March 2019. 5-alt on hold due to necessary revisions, will be revisited.
	Chadron Creek	1	*E. coli*	5-alt accepted 10/22/2021

[1]In 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. This alternative restoration approach allows the state flexibility to align efforts with public interests to restore impaired waters more effectively and efficiently.

Nonpoint Source Pollution Management Program

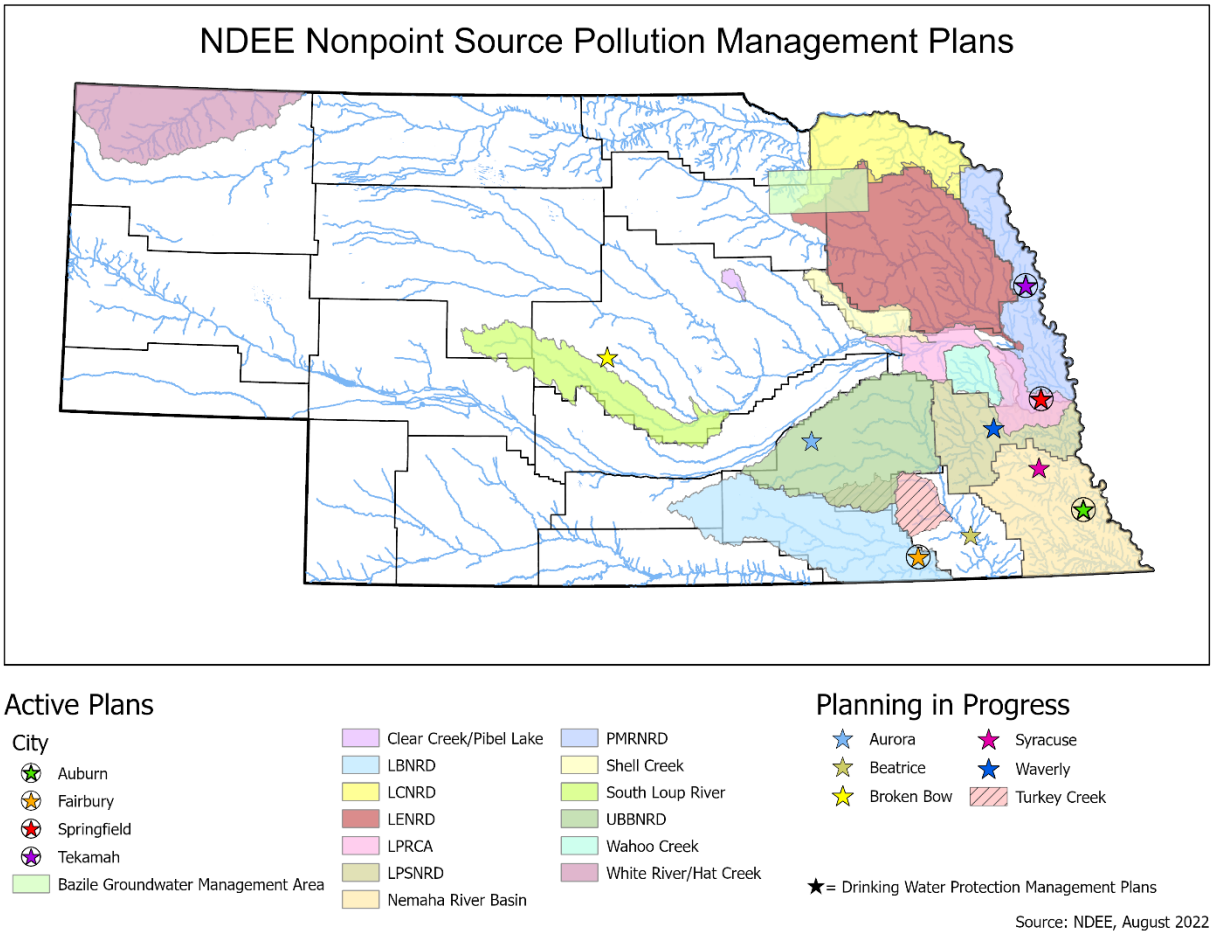
The goal of the Nebraska Nonpoint Source Pollution Management Program is to protect and improve water quality impacted by nonpoint source pollution through an integrated statewide effort. The program is of particular significance because nonpoint source pollution is the most prevalent, widespread cause 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 Nebraska Nonpoint Source Management Plan: "Strategic Plan and Guidance for Implementing the Nebraska Nonpoint Source Management Program – 2021 through 2036," available at http://dee.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. 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 approval by EPA of Project Implementation Plans for the Shell Creek Conservation Effects Study Phase I, Bazile Groundwater Management Area Plan Implementation Phase II, Kirkman's Cove Phase I Planning, and Nebraska Statewide Arboretum Waterwise Landscapes. The program also hosted the EPA Region 7 Quarterly NPS Meeting. 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

Aurora, Beatrice, Broken Bow, Syracuse, and Waverly. Springfield, Auburn and Fairbury DWPMPs were previously accepted by EPA, and Tekamah, was accepted this past year. Once DWPMPs are accepted by EPA, these communities are eligible to apply for 319 project funds for plan implementation.

Stormwater infrastructure tour, Omaha



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 FY2022, NDEE continued to add surface water monitoring results to the WQX database. NDEE has developed an internal database application which has increased the efficiency of processing surface water monitoring data, resulting in significant time savings.

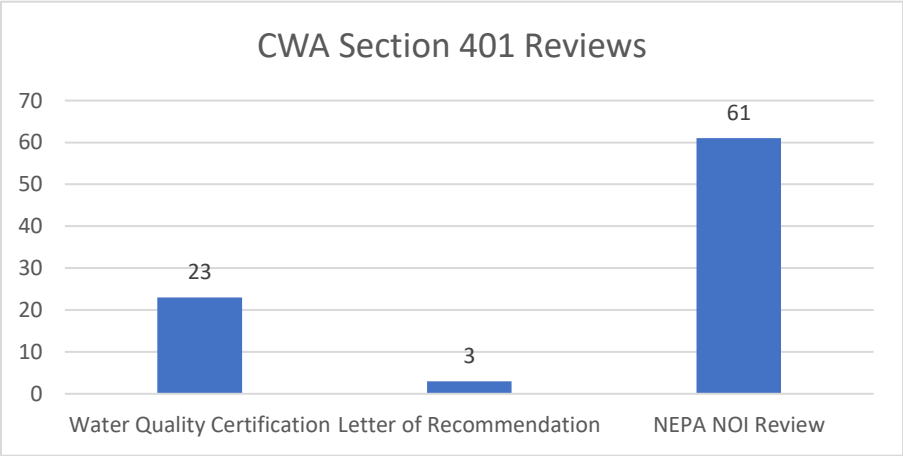
CWA 404 Program

Dredge and Fill Permits

The Clean Water Act (CWA) 404 Section was created in response to LB302 and completed a feasibility analysis for assuming the CWA 404 permitting authority from the U.S. Army Corps of Engineers (Corps) for dredge and fill activities in and around waters of the U.S. The analysis determined the assumable workload, staffing needs, program implementation costs and sustainable funding options. LB809 was subsequently passed giving NDEE the authority to develop a state dredge and fill permitting program. LB809 came with an A-bill which provides funding to cover the cost of program development over the next two fiscal years beginning in July 2022. The funds will be used to hire additional staff to work on remaining assumption program elements and develop permitting software.

CWA Section 401 Water Quality Certification

The 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 *Title 117 - Nebraska Surface Water Quality Standards*. If the activity is likely to violate the standards, conditions for complying with the standards will be issued with the certification, or certification will be denied. The U.S. Army Corps of Engineers' Section 404 Dredge and Fill Permits and Federal Energy Regulatory Commission licenses are examples of federal regulatory programs that require State Water Quality Certification before federal permits or licenses can be issued. NDEE reviews approximately 23 projects for individual WQCs annually. The figure to the right details the number of reviews conducted by the section during FY2022:



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

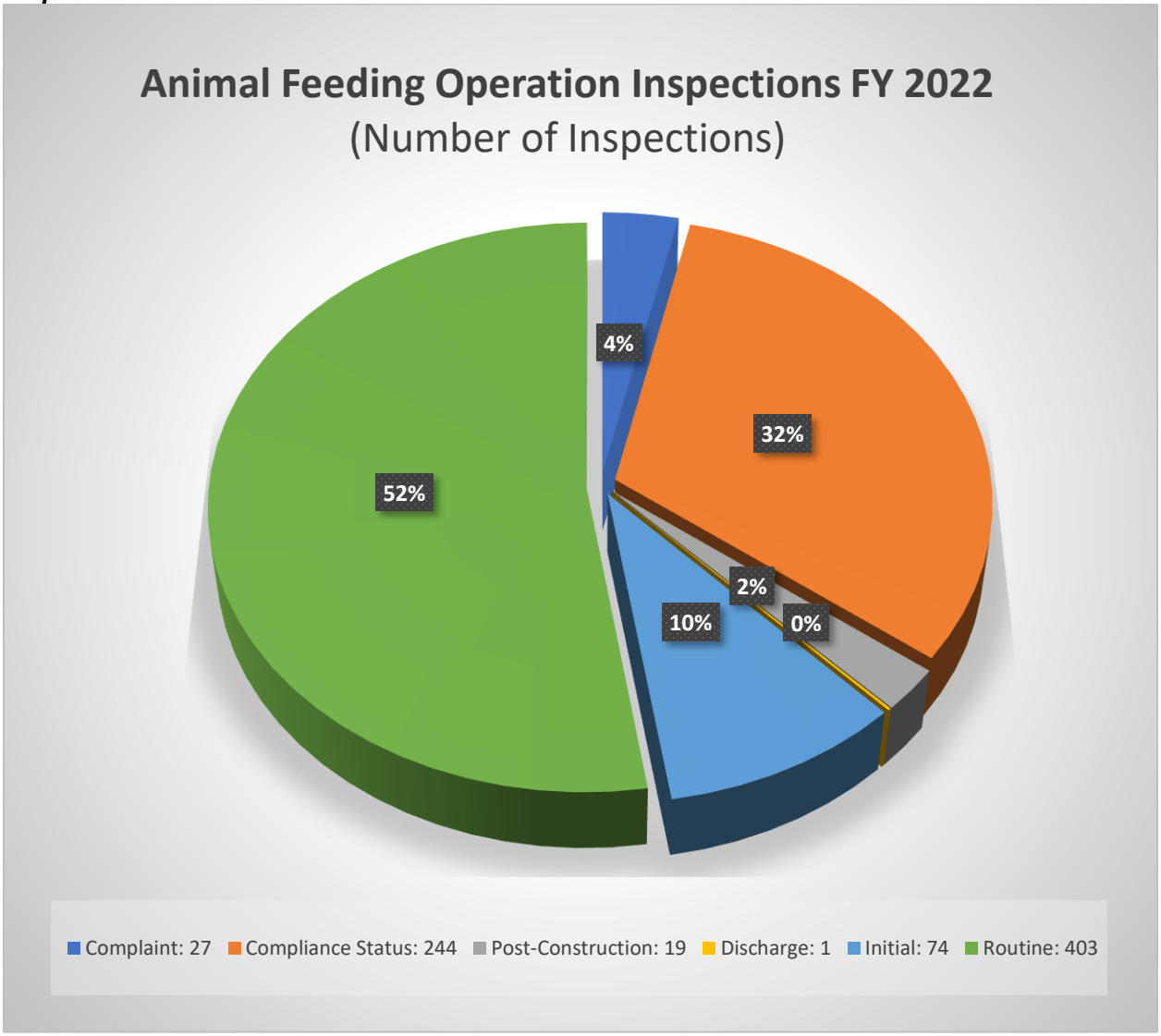
Overview

The Livestock Waste Control (LWC) Program 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 1,330 active large Concentrated Animal Feeding Operations (CAFOs) required to have permits, but also works with approximately 2,558 Medium Animal Feeding Operations (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 in 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 768 livestock waste control inspections and investigations in FY2022. The chart above illustrates the breakdown by type of inspection. A concerted effort is being made to revisit medium-sized operations to ensure that they were in compliance with Title 130 and the EPA CAFO Rule.

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

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

Post-Construction Inspection: Upon completion of any required construction of a LWCF, program staff conduct a post-construction inspection to verify the 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 Inspections: Discharge investigations are conducted when a discharge at a livestock waste control facility is reported. Permitted facilities area required to self-report all discharges to the Department.

Complaint Inspections: 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.

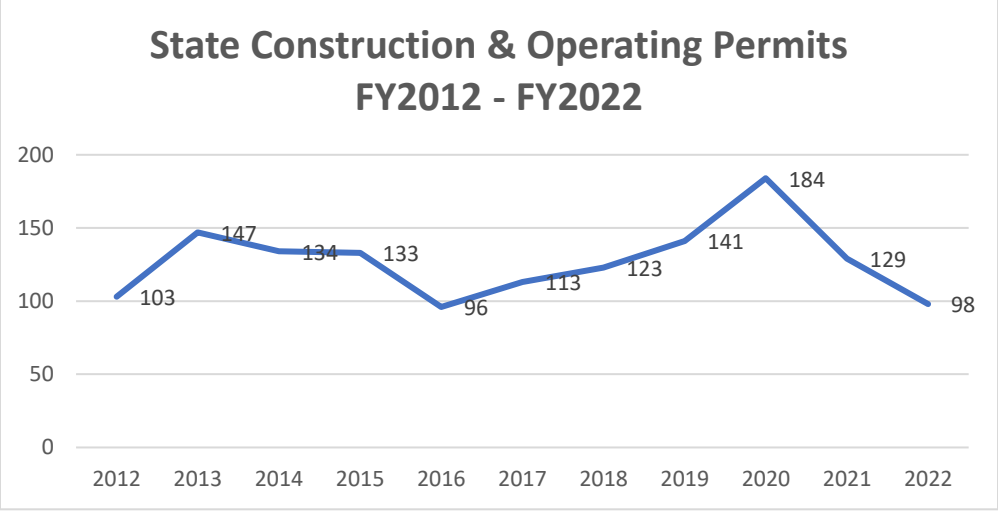
State Permitting

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 89 permit applications and issued 98 permits during FY2022, as shown in the table to the right.

Construction and Operating Permits – FY2022		
Type of Application or Permit	**Applications Received**	**Permits Issued**
New permits	14	20
Modified permits	59	63
Transfer permits	16	15
TOTAL	**89**	**98**

This chart shows the total number of state permits issued annually for livestock waste control facilities since FY2012. 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 FY2022, the Department gave approval to 102 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 FY2022.

NPDES PERMITS – FY2022		
Type of NPDES Application/Permit	Applications Received	Permits Issued
GENERAL PERMIT FOR CAFOS CONFINING CATTLE		
New Coverage	12	3
Modified or Transferred	20	9
Reissued	105	100
SUBTOTAL GENERAL PERMIT:	**137**	**112**
INDIVIDUAL PERMITS		
New Coverage	1	1
Modified or Transferred	3	1
Reissued	2	0
SUBTOTAL INDIVIDUAL PERMIT:	**6**	**2**
NPDES TOTALS:	**143**	**114**

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 $212,900 in annual permit fees. In addition, the Department received $21,200 in initial inspection fees, $114,400 in permit application fees, and $1,522 in late payment fees, and $4,986 in investment income for a total of $355,008 in fees.

General information about the Livestock Waste Control Program, including applications, fact sheets, forms, guidance documents, copies of the NPDES General Permit and the four general permits, Title 130 regulations, and public notices of permit issuance or denial, can 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 28,757 chemigation permits issued in 2021 constituted a 6% increase in permits issued compared to 2020 (26,951 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 2021, 1,167 applicators have been trained, tested, and certified, bringing the current number of certified chemigation applicators to 5,437. 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, 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.

- **Environmental Safety** – The Environmental Safety Program inspects the following types of facilities: public swimming pools, recreational camps, and mobile home parks. The Environmental Safety Program also performs well and septic inspections upon request for property transfers. The Department 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 childcare 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, Environmental Safety and Operator Certification Program Accomplishments and Challenges

In 2022, the Onsite Section launched the online credentialling system. The online system can be used to apply for a new credential or renew a current one, submit and check their professional development hours, as well as pay online. Every other year the Section processes roughly 433 paper registrations, development hour submittals and payments. The new system greatly speeds up the certification process and frees up resources for other priorities.

The Onsite section has prioritized its efforts to resolve a backlog of open compliance issues and complaints. Significant progress has been made by conducting file reviews, contacting homeowners and certified professions to confirm work has been completed or the issue has been resolved. The past year, the sections has closed 40 open compliance cases that originated in past years going back to 2015.

On July 1, 2021, the Environmental Safety section was officially merged with the Department. The merger required a large amount of work from many sections to complete. This included field office leases, vehicle transfers, job classifications, letterhead and form changes, IT challenges, MOU negotiations, and regulation changes. Compliance and inspection processes are still being fine-tuned to match the DEE and maximize efficiency.

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, 433 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, 2023 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 30,000 systems have been registered, with 1,448 systems registered in FY2022.

The Section receives a large number of complaints. There were 68 new onsite-related complaints in FY2022, and program staff resolved a total of 66 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 General Permits which allow 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 - 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 FY2022, the program received 42 applications for construction/operating permits and 10 applications for subdivision review and approval.

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.

This photo shows a Wastewater Treatment Facility for Lincoln.

The Wastewater Operator Certification Program currently has 946 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 2025. NDEE has contacted approximately 300 facilities potentially eligible for the exemption and, of these, issued four-year operator exemptions to 215 facilities.

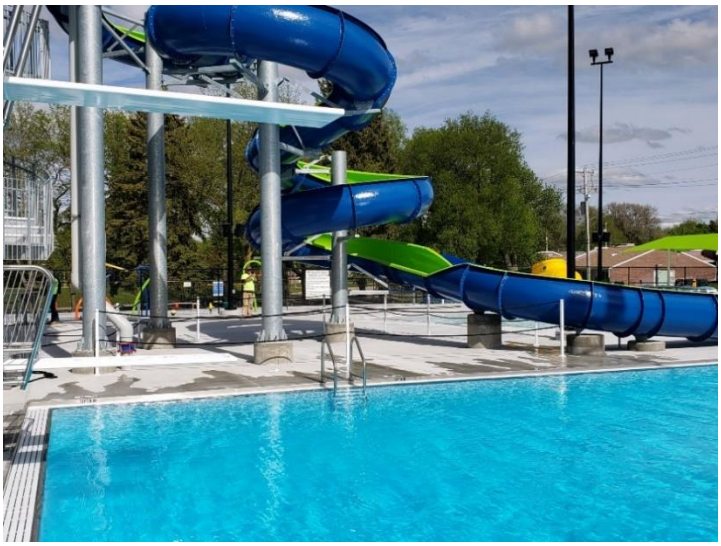
The Department contracts with the Association of Boards of Certification (ABC) for testing services for the Operator Certification Program. Starting in 2019, ABC issued a new exam series for Class I through IV that was not specific to Nebraska. Since the Department began using this exam series, the pass rate for exams has declined sharply. The Department evaluated the issue with ABC and decided the best course of action was to reinstate the previously used state-specific exams. The table below shows the current passing rate.

NDEE Wastewater Operator Certification Program. Title 197. Annual Reporting		
Fiscal Year July 1, 2021 – June 30, 2022	exams administered	Pass rate
	229	52%
• 10 WW certification testing events • 116 newly certified operators		

Environmental Safety Program

The Environmental Safety 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*. NDEE 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 childcare centers (upon referral from the DHHS Licensure Unit). Lastly, the program conducts evaluations of domestic water supplies and onsite wastewater treatment systems at the request of homeowners, 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.

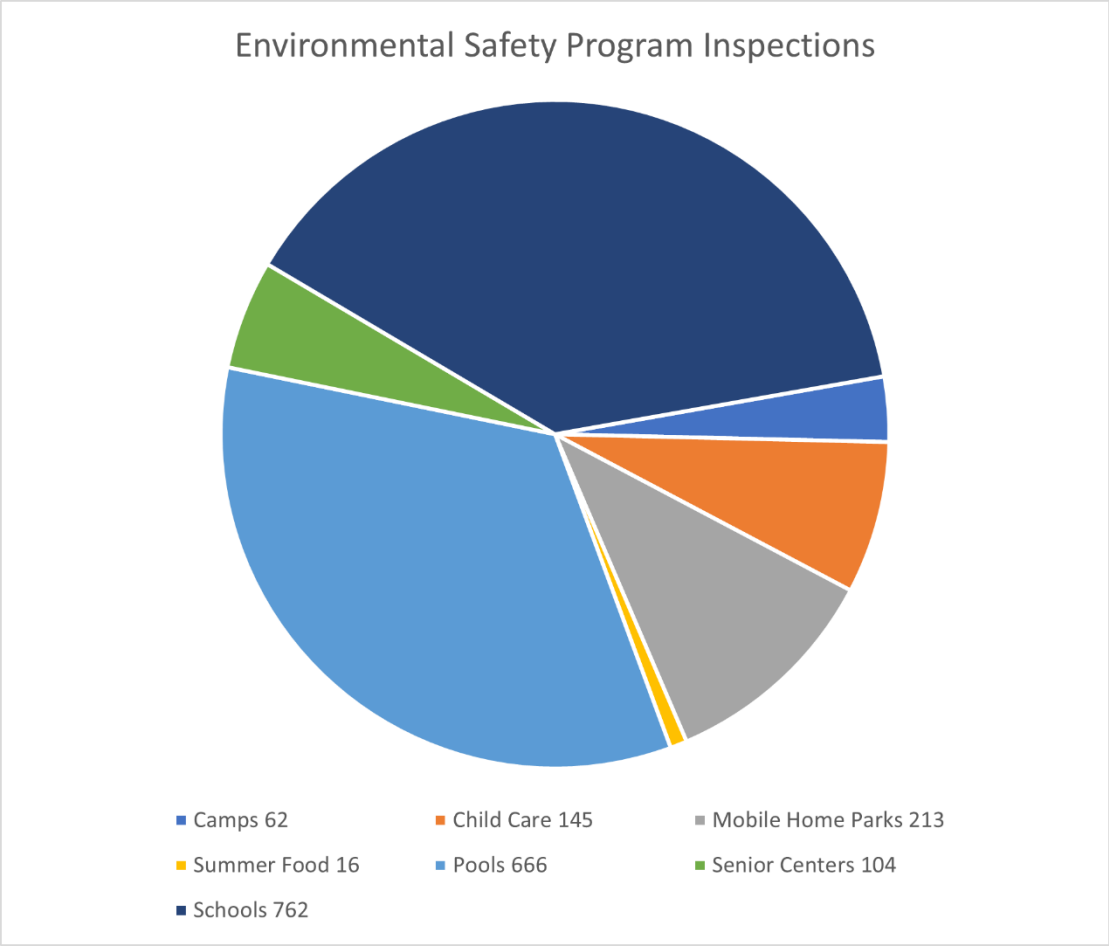
A sign is shown temporarily closing an apartment pool.



Ord Community Pool

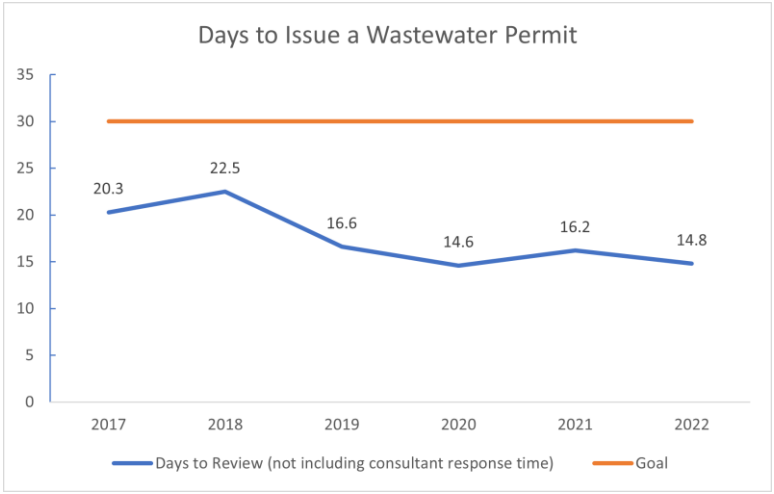
NDEE has partnerships with Douglas County Health Department, Lincoln-Lancaster County Health Department, Central District Health Department and the City of Norfolk to perform inspections at public swimming pools in their jurisdictions.

During FY2022, the seven Environmental Safety program staff completed 1,968 inspections of pools, camps, mobile home parks, childcare centers, senior centers, and schools. There were an additional 176 well and septic evaluations completed for property transfers. The chart on the following page shows a breakdown of FY2022 inspections.



Wastewater Engineering

The engineers in the program 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 FY2022, the Engineering Section received 248 applications for wastewater projects and approved 255 projects. The average day for the Engineering Section to review and issue a construction permit is shown in this chart:



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 alignment 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. The last update became effective on September 4, 2019. This update addressed duplicative language and provided clarity to the reader. It also removed an exemption for not requiring a construction permit for pretreatment facilities if the facility discharged to a public owned treatment works in another state.

Drinking Water Engineering

Drinking Water Engineering 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.

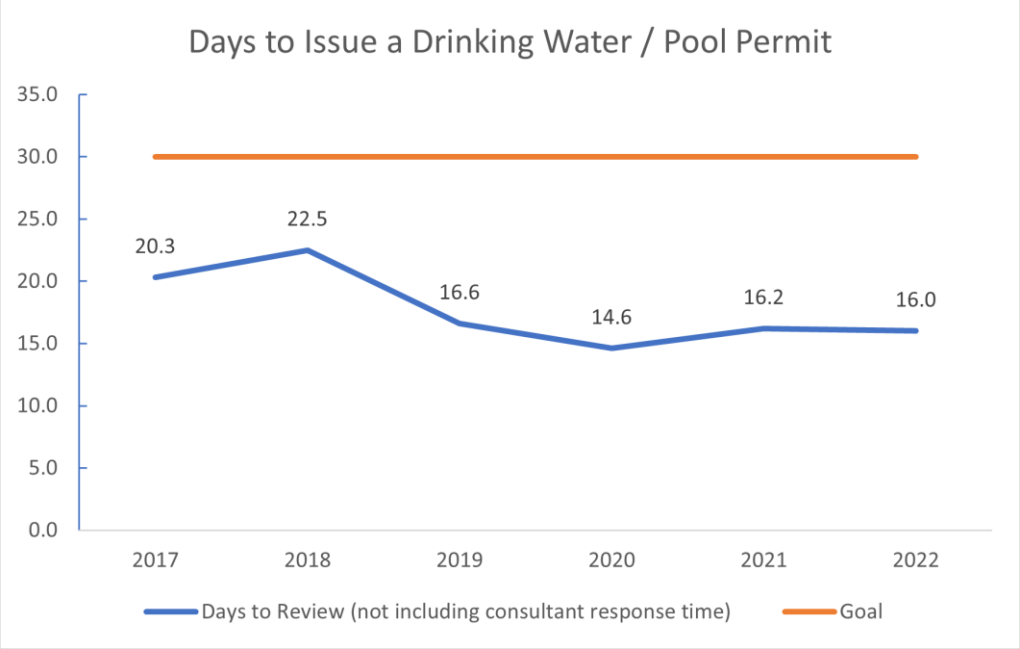
Swimming Pool Under Construction

In 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 for review and approval. These systems are subject to an annual audit as a condition of the agreement. There are a total of 24 public water systems that have agreements with the agency.

The following table details the drinking water review and inspection engineering activities for FY2022:

Drinking Water Engineering Activities	Number
Water Projects Received for Review	181
Water Projects Approved	176
Water Projects Inspected	65
New/Modified Swimming Pool/Spa Projects Received for Review	71
New/Modified Swimming Pool/Spa Projects Approved	75
Pool/Spa Construction Projects Inspected	40
Three-Year Agreements for Distribution Main Projects—Annual Audits Completed	24

As with the wastewater engineering program, the drinking water engineering program has also experienced improved timeliness as a result of the cross-training within the Agency. This shown in the following chart:



Other Engineering Activities

In addition to the normal plan review and approval activity, the Engineering Section spends a considerable amount of time each year working with communities that need to upgrade their facilities, meeting with municipal officials, funding agencies, and consulting engineers to develop affordable projects for Nebraska's communities. The Agency continues to have quarterly meetings with the City of Omaha to discuss their combined sewer separation projects, and regulatory, engineering and funding issues. The Engineering Section also perform various activities. The following is a list of activities conducted by the Engineering Section:

- Reviewed and approved 52 onsite projects. Engineering review and approval is needed when an onsite project cannot meet Title 124 design standards or setback distances, for non-domestic type waste or for a system with flow exceeding 1000 gallons per day.
- Inspect wastewater treatment facilities when needed or to assist the Compliance Section.
- Review and evaluate justifications provided by professional engineers for any new well siting that does not meet the setback distances identified in NAC *Title 179*, *Chapter 7*.
- Evaluate encroachment issues that may be of concern to existing public drinking water system infrastructure.
- Review preliminary engineering reports and applications to the Water Wastewater Advisory Council
- Draft Categorical Exclusion and Finding of no Significant Impact documents for projects funded by the State Revolving Loan Fund.
- Review and approve operation and maintenance manuals funded the State Revolving Loan Fund.
- Assist in drafting loan documents and providing financial capability analyses for the projects to be funded.
- Assist the NPDES program in wastewater treatment plant capacity evaluation and local limits related activity.

The National Pollutant Discharge Elimination System (NPDES) Program

The NPDES Program 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; and 3) Industrial facilities.

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. Livestock NPDES permits may be found in the 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 586 facilities with discharge authorizations under individual permits (municipal, industrial, and pretreatment), and 26 municipal storm water permits (MS4). There are nearly 2,927 active authorized discharges under other general permits. The general permits include 1,036 active authorizations under the construction general storm water permit, 333 dewatering, 90 hydrostatic testing, 987 industrial storm water, three pesticide, and 24 Treated Ground Water Remediation Discharge sites.

Municipal and Industrial Facilities

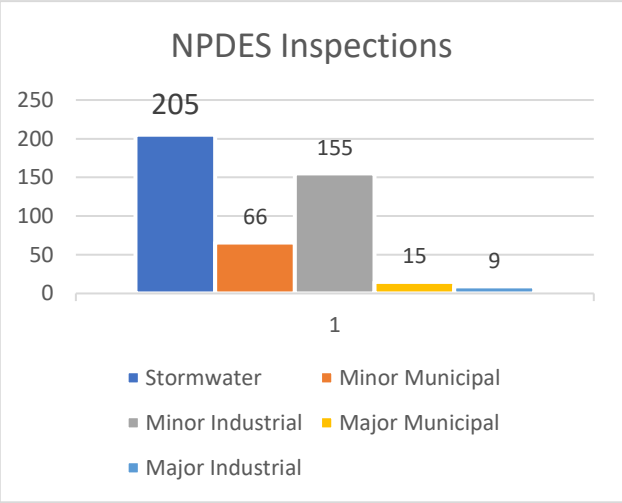
Industrial and municipal facilities are both grouped as major or minor facilities based upon their size and/or their potential to impact the receiving stream.

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 485 NPDES inspections in Fiscal Year 2022. A breakdown of those inspections is provided in the chart below. The minor industrial inspections include 123 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 17 assistance visits in the 2022 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.

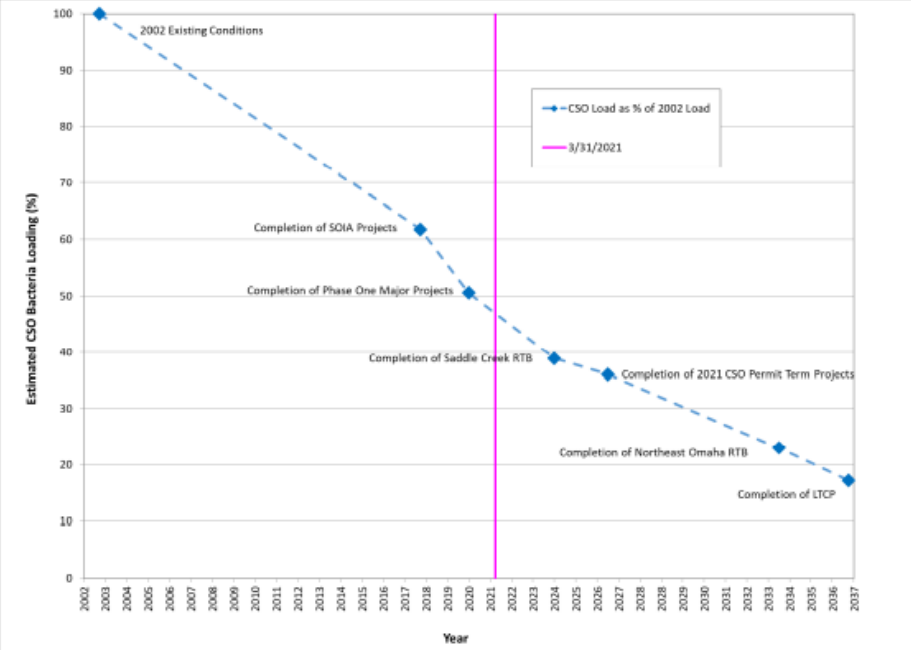
The City and the Department work within the framework of the Clean Water Act, a consent Order initiated in 2007, and the City's Long-Term Control Plan (LTCP). The projects included in the LTCP span through 2037 and are estimated to cost over $2 billion. The goal of the projects is to reduce or eliminate combined sewer overflows and comply with State and Federal regulations. The City of Omaha has identified 29 projects in the LTCP for delivery in the next 16 years. Thirteen of these projects are scheduled for completion by 2026. 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.

In the Missouri River Watershed (MRW), Omaha modeled the efforts to date to show the following:

- A 56 percent capture of representative year wet weather volume as compared to 30 percent under 2002 Existing Conditions.

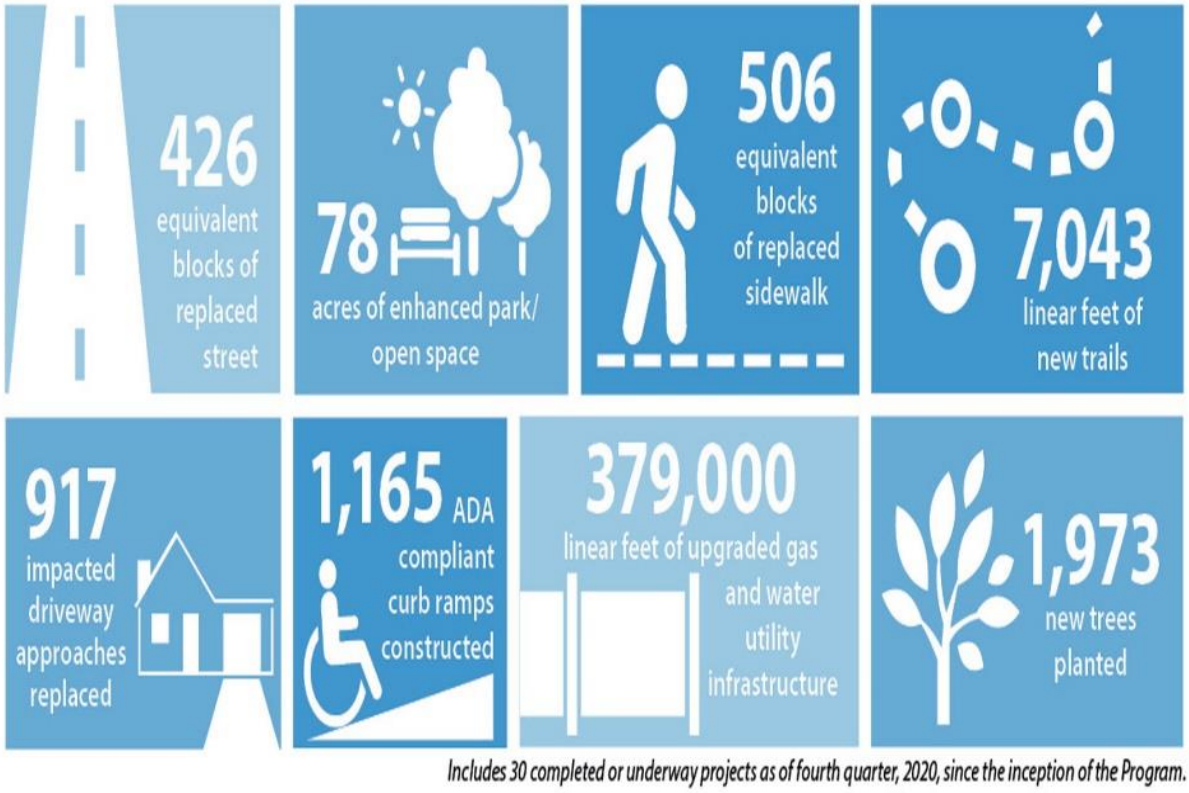
- A significant increase in flow receiving secondary treatment during wet weather due to increased treatment capacity at the Missouri River Water Resource Recovery Facility and increased pumping capacity at the new Leavenworth Lift Station; the volume receiving secondary treatment was 40 percent greater than in 2002 Existing Conditions.

- As CSO volumes are reduced, CSO pollutant loadings also will be reduced. In the MRW, it was estimated that the E. coli load to the Missouri River will be reduced by 85 percent under representative year precipitation conditions after full implementation of 2021 LTCP Update CSO controls. In the Papio Creek Watershed, it was estimated that the E. coli load to the watershed will be reduced by 71 percent for the representative year. Overall, as of 2021, Omaha estimates that E. Coli loading has been reduced by over 50 percent. The chart to the right details the progress of E. Coli reductions over time.



Clean Solutions for Omaha, City of Omaha. OmahaCSO.com

In addition to the environmental benefits from the CSO program, Omaha has realized many community benefits which have allowed for the enhancement of neighborhoods. The next figure details some of the benefits realized beyond the environmental:



Clean Solutions for Omaha, City of Omaha website. OmahaCSO.com

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.

The Industrial Storm Water General Permit online application was made available to public in FY2022. Like the CSW online application process, the process coordinates with the Nebraska Game and Parks Commission and efficiently walks the user through portal registration and the document upload process needed to obtain approval.

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, South Sioux City, Gretna, Gering, Terrytown, 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. NDEE works with individual permittees and organizations, like Nebraska H2O and the Nebraska Floodplain & Stormwater Managers Association, to conduct outreach. 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

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. There are 123 significant industrial users with a pretreatment permit.

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 Fund and Associated Grant Programs

The Planning and Aid Division's State Revolving Fund Section administers distribution of state and federal assistance for the Clean and Drinking Water State Revolving Funds (SRFs), which provide below market loan assistance to communities. This section also oversees the Emerging Contaminants in Small or Disadvantaged Communities, Lead Remediation in Schools, Sewer Overflow and Stormwater Reuse Municipal, and Small, Underserved, and Disadvantaged Communities grant programs. The level of assistance provided by these programs was greatly increased with the recent Infrastructure Investment and Jobs Act, more commonly referred to as the Bipartisan Infrastructure Law (BIL). Many of the planning efforts for BIL funds were completed during last fiscal year, with funding awards and loans to be signed in the upcoming year.

Separate from the BIL, and signed into law by Governor Pete Ricketts on April 13, 2022, the section also administers three projects with allocations from the American Rescue Plan Act of 2021 (ARPA), as any essential water and sewer infrastructure projects funded under ARPA are aligned with those eligible under the SRFs.

Clean Water State Revolving Fund

The Clean Water State Revolving Fund (CWSRF) program provides below-market loan 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 revolve back into new loans, and interest earnings on the fund are primarily used to pay off the state match bonds. An administrative fee is assessed to each loan made, which pay for program operating costs including day-to-day program management activities and for other costs associated with debt issuance, financial management, consulting, and support services necessary to provide for a complete program.

The CWSRF program receives a capitalization grant annually from EPA. There is a 20% state match requirement to obtain that grant, which is typically a debt issuance provided through a Nebraska Investment Finance Authority (NIFA) bond. In September of 2021, the EPA awarded Nebraska's 2021CWSRF capitalization grant in the amount of $8,109,000. The required match of $1,621,800 was provided both through bonds, and a cash transfer from the Administrative Cash Fund. In SFY 2022, the CWSRF funded projects totaling $205,548,527 in loans, with $1,707,383 loan forgiveness and grant assistance.

Additional Subsidy Awards

Many small municipalities find that the development and construction of needed projects are too costly without additional grant subsidy provided with CWSRF loans. To assists those communities, 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 identify wastewater project needs. After the project is identified, the CWSRF may provide a Small Town Grant (STG). Funded from the Administration Cash Fund, this grant provides subsidy of up to $250,000 per project. This grant program has provided $10.83 million in funding for 88 projects with CWSRF loans since the start of the program.

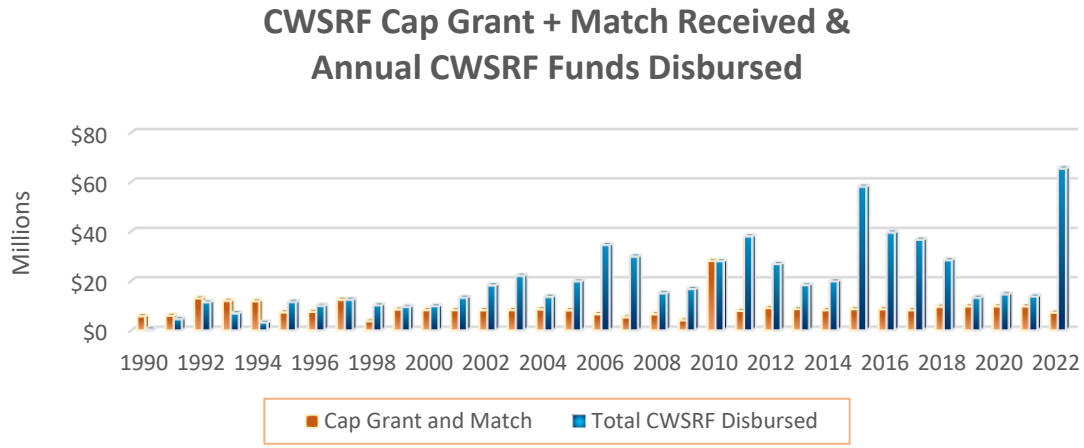
Loan forgiveness is becoming the primary method of providing additional subsidy, through reserving up to 10% of the federal CWSRF capitalization grant. Like the PPAR and STG, borrowers must show financial hardship to be eligible for this grant, then eligibility is based on:

- Loan Forgiveness eligibility follows a tiered system.
  - Population Focused
    - Population of 10,000 or less – Capped at 15%
    - Population of 3,300 or less – Capped at 20%
    - Population of 500 or less – Capped at 25%
- Borrowers were also evaluated based on standard loan forgiveness terms from prior fiscal year programs and awarded loan forgiveness amount based on whichever is greater, dependent on availability of funds.

Total CWSRF Assistance Provided

After nearly 35 years of activity, the fund's net assets have reached $346.2 million as of July 1, 2021. Since its inception, the CWSRF has provided loans for 350 projects with a cumulative loan award amount of $673.4 million.

The following graph provides the total assistance provided by the Clean Water program per year and the cumulative amounts of capitalization grants and match received and total amounts disbursed.



Drinking Water State Revolving Fund

The Drinking Water State Revolving Fund (DWSRF) program provides below-market rate loans, with forgiveness and grant assistance, but to owners of public water systems (PWSs). The DWSRF is unique in that loans may be awarded to privately-owned PWSs. Loan principal repayments revolve back into new loans, and interest earnings on the Fund are used to pay off NIFA bonds issued for the required EPA capitalization grant match. There is also a small administration fee assessed to each DWSRF loan for program management activities.

The DWSRF program receives a capitalization grant annually from EPA. There is a 20% state match requirement to obtain that grant, which is typically a debt issuance provided through a NIFA bond. In September of 2021, the EPA awarded Nebraska's 2021 DWSRF capitalization grant in the amount of $11,001,000. The required match of $2,200,200 was provided both through bonds, and a cash transfer from the Administrative Cash Fund. In SFY 2022, the DWSRF funded projects totaling $71,299,064 in loans. After nearly 25 years of activity, the Fund's Net Assets have reached $228.5 million as of July 1, 2021.

In SFY 2022, the DWSRF entered into seventeen binding commitments to PWSs, including four amendments to existing loans. From the noted loan amount above, disadvantaged communities received $6,830,772 in forgiveness assistance. The EPA grant awards required that a minimum of 20% of the grant be in the form of additional subsidization (e.g., loan forgiveness). Increased loan forgiveness is provided when a project addresses a public health concern (e.g., Nitrate in a drinking water supply).

DWSRF Set-Aside Funds

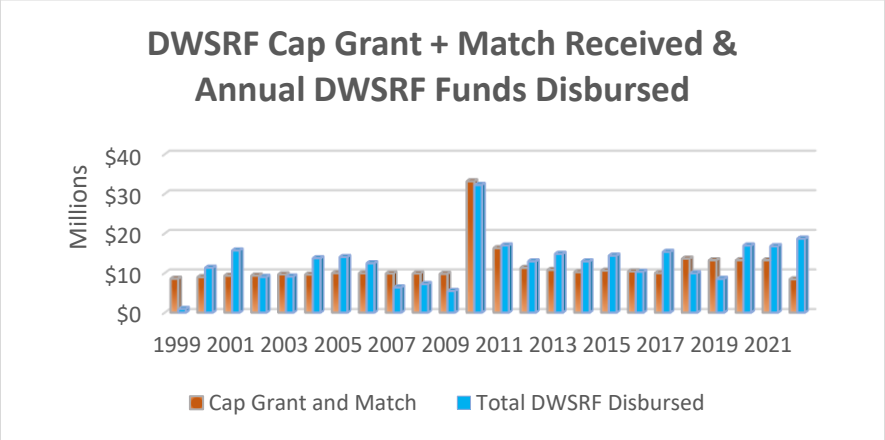
A notable difference between the SRFs, the DWSRF include set-asides for funding within Nebraska's Drinking Water Division to provide for technical assistance, source water protection, capacity development and operator certification.

The Small System Technical Assistance set-aside (up to 2% of the capitalization grant) provides technical, managerial, and financial assistance to PWSs serving a population of 10,000 or less. This is accomplished through contracts with organizations that have expertise in dealing with small systems. The state may use up to a total of 10% of the capitalization grant from the State Program Management set-aside, which the DWSRF typically allocates to help fund the NDEE's Drinking Water Division.

In SFY 2022, under the Local Assistance and Other State Programs set-aside (15%), the communities of Aurora and Central City were selected to receive Source Water Grants totaling $98,550 from the 2021 Capitalization Grant. Further, two agreements for preliminary engineering reports were awarded to high priority PWSs to address public health issues in the Village of Burr and for the Lewis & Clark Natural Resource District.

From the FFY 2021 capitalization grant, $2,970,270 was allocated to the 2% ($220,020), 10% ($1,100,100), and 15% ($1,650,150) set-asides. From the 15%, a second source water protection loan was made by the program to the City of Beatrice.

The following graph provides the total assistance provided by the Drinking Water program per year since inception and the cumulative amounts of capitalization grants and match received and total amounts disbursed.



SRF Summary

Each year the CWSRF and DWSRF publish an Intended Use Plan (IUP), which explains how the SRF programs will use capitalization grants received annually from EPA, annual state matching funds, and current program funds to meet Nebraska's communities' drinking water and wastewater infrastructure needs and funding requirements for the upcoming fiscal year. The IUP requires a comment period and is then formally presented to the Environmental Quality Council (EQC) for review and approval. Lastly, a more detailed annual report is prepared to meet EPA program requirements, including the Auditor of Public Account's report done for SRF programs. These can be found at the State Revolving Fund Section at dee.ne.gov

State Revolving Fund Assistance by Legislative District as of June 30, 2022

	CWSRF Assistance			DWSRF Assistance			Total SRF Assistance		
District	CWSRF Loan	CWSRF Subsidies	CWSRF Total Assistance	DWSRF Loan	DWSRF Subsidies	DWSRF Total Assistance	SRF Loan	SRF Subsidies	SRF Total Assistance
1	$9,330,593	$1,226,436	$10,557,029	$35,295,809	$5,819,001	$41,114,810	$44,626,402	$7,045,437	$51,671,839
2	$55,168,808	$650,919	$55,819,727	$29,152,516	$338,535	$29,491,051	$84,321,324	$989,454	$85,310,778
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	$195,369,110	$1,908,000	$197,277,110	$6,552,655	$1,272,182	$7,824,837	$201,921,765	$3,180,182	$205,101,947
8	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	$0	$0	$0	$0	$0	$0	$0	$0	$0
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	$2,745,000	$0	$2,745,000	$0	$0	$0	$2,745,000	$0	$2,745,000
15	$4,274,588	$520,577	$4,795,165	$11,481,307	$959,494	$12,440,801	$15,755,895	$1,480,071	$17,235,966
16	$15,528,483	$1,435,079	$16,963,562	$31,648,477	$5,352,396	$37,000,873	$47,176,960	$6,787,475	$53,964,435
17	$60,633,244	$1,523,766	$62,157,010	$12,269,207	$908,042	$13,177,249	$72,902,451	$2,431,808	$75,334,259
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	$1,992,000	$250,000	$2,242,000	$2,056,127	$0	$2,056,127	$4,048,127	$250,000	$4,298,127
22	$4,327,139	$1,086,404	$5,413,543	$5,234,919	$1,633,176	$6,868,095	$9,562,058	$2,719,580	$12,281,638
23	$26,025,014	$1,233,963	$27,258,977	$5,263,505	$1,057,438	$6,320,943	$31,288,519	$2,291,401	$33,579,920
24	$26,974,678	$646,583	$27,621,261	$15,941,107	$4,129,998	$20,071,105	$42,915,785	$4,776,581	$47,692,366
25	$0	$0	$0	$829,007	$112,303	$941,310	$829,007	$112,303	$941,310
26	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	$34,576,358	$1,250,000	$35,826,358	$14,977,829	$0	$14,977,829	$49,554,187	$1,250,000	$50,804,187
28	$0	$0	$0	$0	$0	$0	$0	$0	$0
29	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	$5,274,475	$354,478	$5,628,953	$16,422,570	$1,830,051	$18,252,621	$21,697,045	$2,184,529	$23,881,574
31	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	$10,297,713	$2,027,949	$12,325,662	$10,973,681	$2,953,100	$13,926,781	$21,271,394	$4,981,049	$26,252,443
33	$5,409,430	$75,989	$5,485,419	$936,858	$213,693	$1,150,551	$6,346,288	$289,682	$6,635,970
34	$16,823,969	$1,218,350	$18,042,319	$6,286,357	$1,643,068	$7,929,425	$23,110,326	$2,861,418	$25,971,744
35	$33,831,257	$0	$33,831,257	$0	$0	$0	$33,831,257	$0	$33,831,257
36	$85,481,979	$2,681,997	$88,163,976	$10,174,539	$984,750	$11,159,289	$95,656,518	$3,666,747	$99,323,265
37	$62,663,336	$0	$62,663,336	$23,332,392	$383,869	$23,716,261	$85,995,728	$383,869	$86,379,597
38	$9,872,893	$1,737,875	$11,610,768	$2,182,316	$602,881	$2,785,197	$12,055,209	$2,340,756	$14,395,965
39	$7,775,884	$100,000	$7,875,884	$297,522	$0	$297,522	$8,073,406	$100,000	$8,173,406
40	$10,330,441	$3,205,965	$13,536,406	$17,187,069	$4,206,489	$21,393,558	$27,517,510	$7,412,454	$34,929,964
41	$15,931,457	$1,907,394	$17,838,851	$11,762,992	$3,228,706	$14,991,698	$27,694,449	$5,136,100	$32,830,549
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	$37,352,645	$2,389,844	$39,742,489	$4,481,976	$317,243	$4,799,219	$41,834,621	$2,707,087	$44,541,708
44	$27,967,239	$2,023,878	$29,991,117	$22,670,185	$2,839,043	$25,509,228	$50,637,424	$4,862,921	$55,500,345
45	$6,985,901	$0	$6,985,901	$0	$0	$0	$6,985,901	$0	$6,985,901
46	$271,286	$0	$271,286	$0	$0	$0	$271,286	$0	$271,286
47	$18,074,409	$3,216,134	$21,290,543	$29,208,859	$5,693,972	$34,902,831	$47,283,268	$8,910,106	$56,193,374
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	$12,613,210	$0	$12,613,210	$988,800	$0	$988,800	$13,602,010	$0	$13,602,010

**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 7 was selected for Omaha projects and District 27 was used for Lincoln area projects*

Other Clean Water and Safe Drinking Water Act Grants

Small, Underserved, and Disadvantaged Communities Grant Program

Now an annual grant program authorized under the Water Infrastructure Improvements for the Nation Act (WIIN), the Small, Underserved, and Disadvantaged Communities Grant Program was established to assist such PWSs. Awards will be as non-competitive grants to Nebraska. The grant program is designed to help systems meet and comply with the Safe Drinking Water Act. Aid is provided to underserved communities that have no household drinking water or wastewater services or are served by a PWS that violates or exceeds any Maximum Containment Level, treatment technique, or action level.

The initial recipient of this grant was the Village of Martinsburg to help the community return into compliance with the Uranium drinking water standard and to replace a deteriorated water storage tank. This past fiscal year, $370,000 was awarded to the community and due to supply chain issue resulting in higher project bids, another $464,000 is planned for the Village to construct a stainless-steel water tank.

Sewer Overflow and Stormwater Reuse Municipal Grants Program

America's Water Infrastructure Act of 2018 amended section 221 of the Clean Water Act, which reauthorized the Sewer Overflow and Stormwater Reuse Municipal Grants Program (OSG). These amendments expanded project eligibilities to include stormwater management projects and authorized appropriations for the program. Grants are awarded to states, which will then provide sub-awards to eligible entities for projects that address infrastructure needs for combined sewer overflows (CSO), sanitary sewer overflows (SSO), and stormwater management. In May of 2022, the first allotment of $882,000 in OSG funds were awarded to Nebraska.

The initial recipients were the City of Omaha ($749,700) and the Middle Niobrara NRD ($132,300). Nebraska presently receives 3.9% of the national OSG allotment primarily due to Omaha's CSO project, well above the 0.58% that is allocated under the CWSRF. As the City's project is the primary, categorically eligible, need for this grant program, it is planned that for each funding allotment, another political subdivision will be selected as a best paired fit to meet the OSG's program minimum allocation to rural and financially distressed communities, this year being the NRD.

Lead Remediation in Schools

The NDEE, in cooperation with the Nebraska Department of Health and Human Services, is committed to reducing childhood exposure to lead from drinking water. NDEE applied for grant funding as part of EPAs 2021 WIINs Lead Testing in School and Child Care Programs and will be implementing the 3Ts (training, testing, and taking action) for reducing lead exposure in drinking water.

With the passage of the BIL, the authority for this grant program has been expanded to assist schools with carrying out projects to remediate lead contamination in drinking water. This will be carried out at schools and childcare programs, but only under the jurisdiction of local educational agencies, a requirement of the federal law. As such, sampling at public pre-schools, elementary schools, and associated childcare facilities will be a renewed focus of this

WIIN Grant award. The funding will be focused on facilities serving underserved and low-income communities, and those older than 1988, as they are at highest risk for containing lead plumbing components.

American Rescue Plan Act (ARPA)

The State of Nebraska was allocated $1.04 billion of Coronavirus State Fiscal Recovery Funds, which in part may be used to make necessary investments in water and sewer infrastructure. In the final rule adopted for implementation of these funds, the U.S. Department of the Treasury aligned the eligible uses of these funds with the wide range of types or categories of projects that would be eligible to receive financial assistance through the CWSRF or DWSRF.

Signed into law by Governor Pete Ricketts on April 13, 2021, Section 51 of Legislative Bill No. 1014e states that these funds are "…*for grants for reverse osmosis systems, which shall only be used for such purpose*". The narrative of the legislation further clarified that the NDEE "…*shall provide grants for villages and cities of the second class to install reverse osmosis systems in community water systems where drinking water test levels are above ten parts per million of nitrate and, if appropriate, provide grant funds for use to install reverse osmosis systems if test levels for nitrate in drinking water pumped from private wells are above ten parts per million*". The Department is developing programs to administer the $4,000,000 allocated for the above.

Section 52 of Legislative Bill No. 1014e states that these funds are to be used "…*for wastewater and drainage system updates at the state fairgrounds, which shall only be used for such purpose*". Wastewater and drainage system updates are eligible for assistance under the CWSRF, and therefore under ARPA, when a project provides a water quality benefit or for measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water. The agency drafted a contract to provide the $20,000,000 allocated to the Nebraska State Fair.

Section 53 of Legislative Bill No. 1014e states that these funds are "…*to provide grant assistance for a rural drinking water project that serves rural water connections and at least four communities in two contiguous counties in order to convert to ground water sources and to provide for water system infrastructure and distribution, which shall only be used for such purpose*". The agency drafted a contract to provide the $7,000,000 allocated for this program to the Lewis & Clark NRD. That NRD owns and operates the Cedar-Knox Rural Water Project, which is the only water system to meet the above narrative language.

Nebraska's Public Water Systems

Information presented for the rest of this chapter reflects 2021 calendar year activities as published in the Nebraska Public Water System 2021 Annual Report, issued in June 2022.

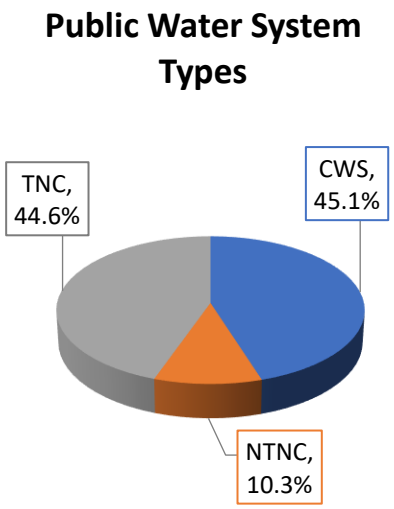
Population and Type of System

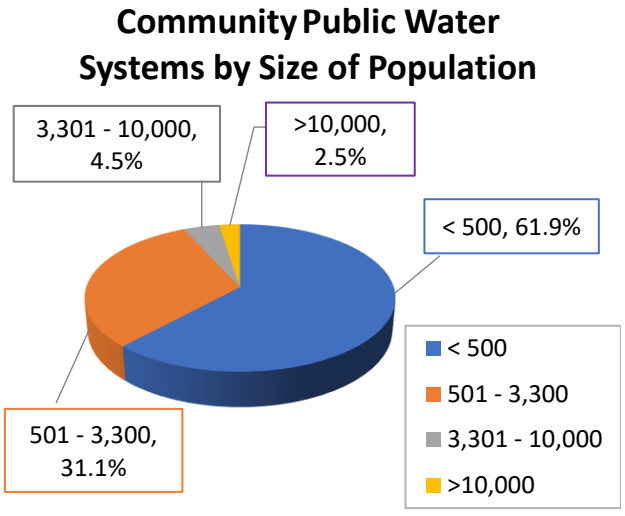
Nebraska public water systems can be broken down into categories based on the size of the population served and/or the type of population served.

Population	CWS	NTNC	TNC	Total Systems	Percentage*
<101	103	74	497	674	50.8%
101-500	267	45	88	400	30.2%
501-1000	98	8	6	112	8.4%
1001-3300	88	8	0	96	7.2%
3301-10000	27	2	0	29	2.2%
10001-50000	12	0	0	12	0.9%
>50000	3	0	0	3	0.2%
TOTAL	598	137	591	1326	100.0%

**Based on approximate population*

CWS = Community Water System ..... 598 systems
NTNC – Non-transient, non-community .....137 systems
TNC = Transient, non-community .....591 systems





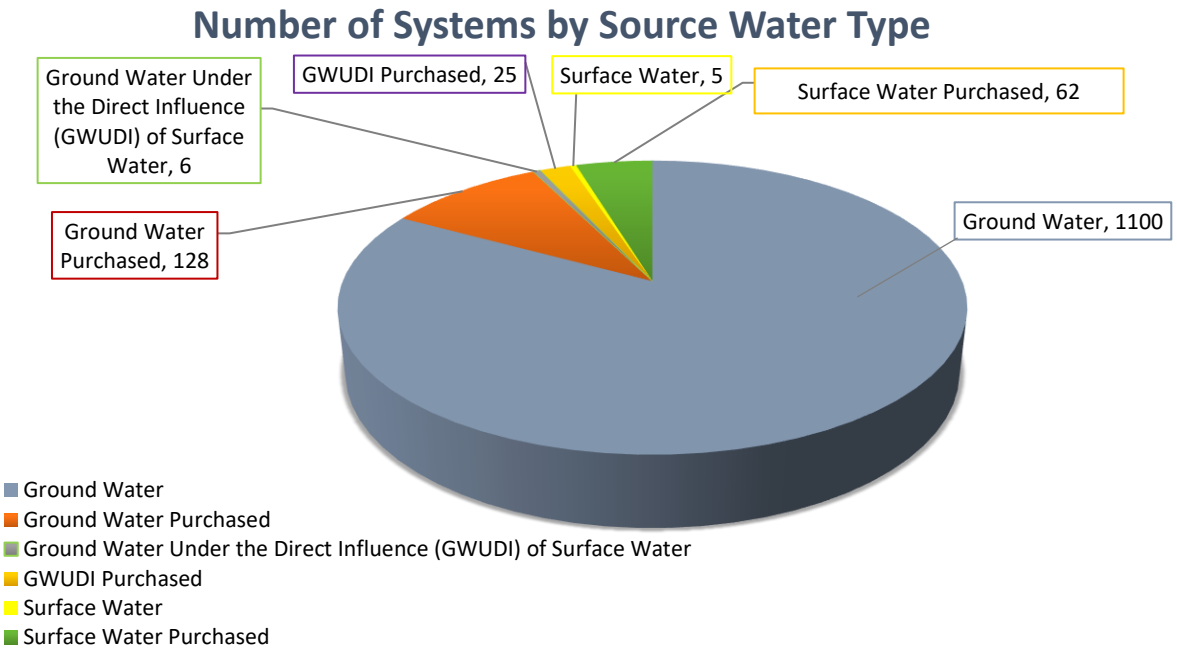
Over 60% of Nebraska's CWSs serve populations less than 500 people. Water systems with populations below 3,300 are considered to be 'small systems' by the EPA. This makes

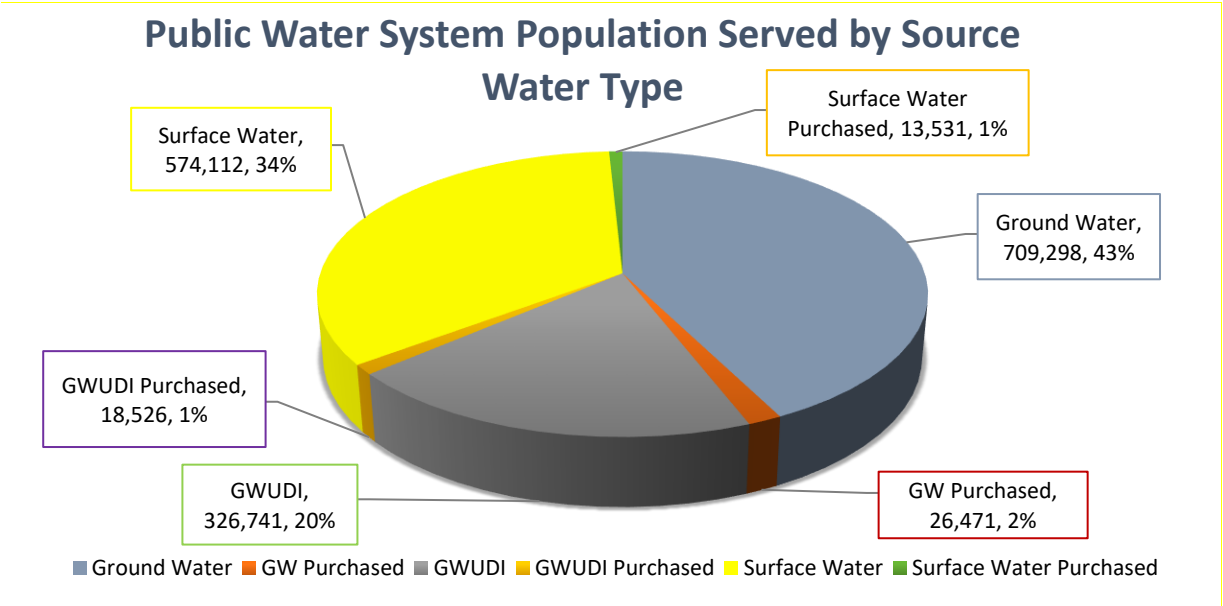
Nebraska a predominantly small system state with 93.0% of all of the State's CWSs serving 3,300 or fewer people.

Public Water in Nebraska

The Drinking Water and Groundwater Division at the Nebraska Department of Environment and Energy administers the State's regulations governing PWSs, Title 179 NAC 2 through 26, promulgated under the State's SDWA pursuant to and in accordance with the federal SDWA. State regulations must be at least as stringent as the federal regulations.

Public water systems provide water to approximately 80% of the people of Nebraska. Private domestic wells, which are not regulated under the SDWA, provide water for 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 62 systems purchase water from those five systems. In addition, 6 systems utilize ground water under the influence of surface water (GWUDI), and 25 additional systems purchase water from those six systems. The remaining 1,100 systems use ground water, and an additional 128 systems purchase their water from another ground water system.





**Percentages rounded to nearest 1%*

Nebraska's Drinking Water Division's Activities

The Drinking Water Division has 31 full time equivalent positions (FTEs). The Monitoring and Compliance Section has 10, the Engineering Section has 9, the Field Services and Training Section has 12, and 2 FTEs contribute to the administration of the program.

Drinking Water Field Services, Water Operator Training, and Capacity Development

These areas encompass four separate, but related areas of responsibility:

1) Field Services (inspections, operator assistance, etc.)
2) Water Operator Training
3) Capacity Development, and
4) Water System Security

Field Services staff include a supervisor, eight field representatives, and two program coordinators. The Water Operator Training and Capacity Development components of the program are overseen by a training coordinator, and capacity development coordinator, respectively. Staff within these areas 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, provide support during emergency situations, and help public water systems to achieve or maintain adequate technical, financial, and managerial capacity. There are eight field areas located throughout the State to provide close contact and timely assistance to Nebraska's public water systems.

2021 Field Services & Training Covid-19 Response

The Covid-19 Pandemic impacted the activities of the FS&T Section. All field and training activities were suspended in mid-March and did not resume until mid-June. At that time, sanitary surveys, as well as other inspections, were allowed to resume under specific protocols to minimize the risk of spreading Covid-19. All NDEE staff were required to wear masks and gloves when at a PWS, and social distancing was observed whenever possible.

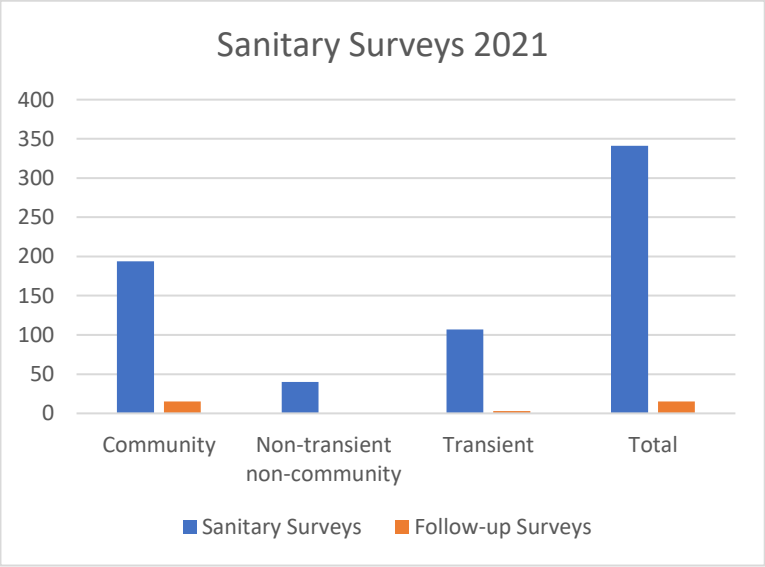
Operator training courses and examinations also resumed with modified procedures. Class sizes were reduced to ensure adequate social distancing, masks were worn by students and instructors at all times, and materials were prepared in advance for each student/examinee to limit the possibility of transmission. Additional courses were added to make up for the suspended courses and smaller class sizes.

Following the initial suspension of activities, the FS&T Section was able to complete all required inspections for the year and clear the backlog of those needing training for water operator licensure. As cases of Covid-19 began to rise a second time in Nebraska, activities were again suspended in November, in all counties that were designated as "red" on their local risk dial, representing a severe risk for spread. The conditions in the individual counties was monitored closely and as the risk dials began moving back out of the "red," NDEE was able to resume activities in most counties by the end of the year.

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.



Field personnel conducted 341 sanitary surveys (194 community, 40 non-transient non-community, and 107 transient public water systems) and 18 follow-up surveys (15 community and 3 transient public water systems). A total of 637 deficiencies were found in 2021. This reflects an overall deficiency rate of 1.9 deficiencies per sanitary survey in 2021. No deficiencies were found in 162 (48%) of the sanitary surveys completed in 2021. The average

number of deficiencies found in Nebraska's public water systems remained stable from 2019 to 2021, 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, 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 are essential workers that respond to emergencies 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.

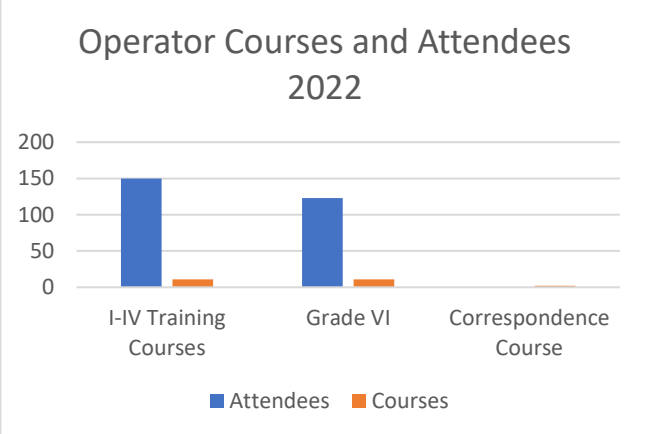
A Level 2 assessment is triggered by either multiple Level 1 assessments within a running twelve-month period, or by the confirmed presence of *E. coli* bacteria in the system. A Level 2 assessment is conducted by field staff and provides a much more detailed evaluation of the public water system.

Hypochlorinators

The Drinking Water Division maintains a number of hypochlorinators for temporary loan to public water systems when bacterial contamination is a source of concern. This equipment helps communities with temporary chlorination of their water supplies to ensure the safety of their drinking water. When a power outage or source failure is involved, program staff also help systems locate equipment and supplies which may be needed.

Training

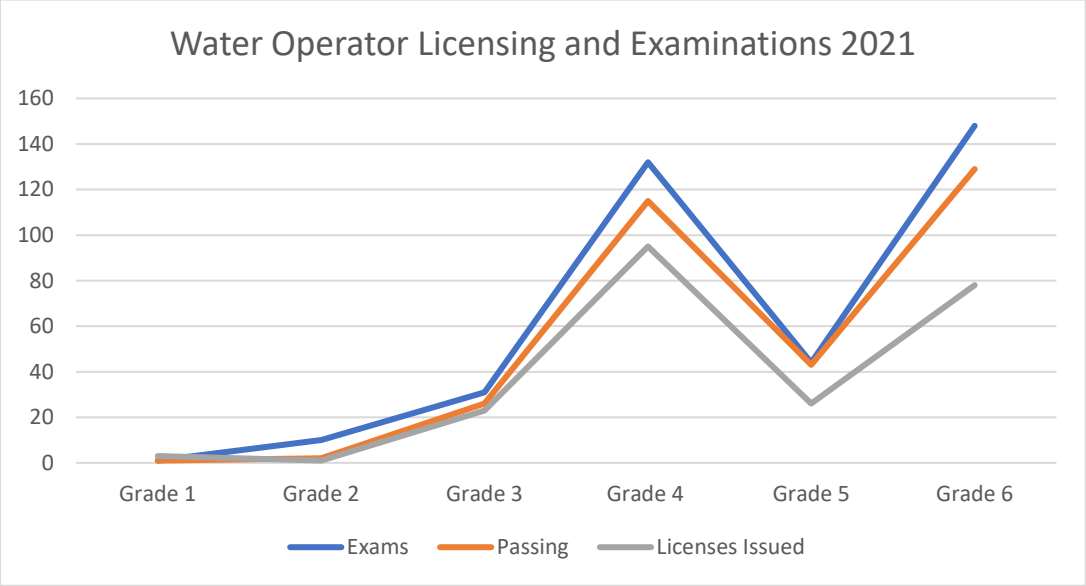
Field Services & Training Program personnel conducted 11 water operator training courses, Grades I through IV, with a total of 150 attendees. An additional 2 individuals completed the correspondence course that is also offered to prepare for the Grade IV licensure examination. For Grade VI licensure (backflow preventer testing and repair), 11 courses were offered with a total of 123 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:

Grade	Examinations	Passing	Number of Licenses Issued
I	1	1	3
II	10	2	1
III	31	26	23
IV	132	115	95
V	44	43	26
VI	148	129	78



Although COVID-19 did slow continuing education activities in 2021, the Drinking Water Division and other training providers adapted to existing conditions both in person and virtual training formats for water operators. Coordinated by the program, a group informally known as the Water Operator Training Coalition, met to identify training needs and to assist with scheduling of 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 2021, 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 73 workshops/seminars/conferences were initially offered in Nebraska for the purpose of water operator continuing education. Of these, 31 focused primarily on backflow prevention continuing education for Grade VI operators.

Capacity Development

Capacity development is a proactive approach, through which water systems acquire and maintain adequate technical, managerial, and financial capabilities, enabling them to provide safe drinking water to Nebraskans. NDEE's activities to bolster water systems' capacity are overseen by the program's Capacity Development Coordinator.

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. NDEE contracts with technical assistance providers 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. Providers then work with water systems, providing assistance with applications for funding, capacity development training, manuals, and mentorship to assist water systems. Technical assistance providers made 302 in-person or phone contact visits with systems.

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 completed, to determine the impact of the project on improving the system's capacity. Two systems received final assessments through this process during the 2021 calendar year.

The technical assistance contract which performed these assessments wasn't renewed for the SFY 2022 contract year, which started July 1, 2021. With this change, the decision was made to modify the process for performing assessments. An updated capacity assessment has been created, which includes detailed information about asset management using EPAs five core components. These assessments are being sent out several weeks prior to routine sanitary surveys for community and non-transient non-community systems. The surveys are to be completed by board member(s) or owner(s) with input from other water system personnel. The survey also requests signature/verification from a board member or owner and the operator. This process will ensure surveys are updated every three years for community systems and every five years for non-transient systems. If a survey isn't on file when a system applies for a DWSRF loan, the DWSRF program sends the survey as part of the application.

Board/Council Training:

Before the contract for assessments and board training ended July 1, 2021, nine board trainings were given. After that time, systems that were interested in board training were contacted through the other 2% set-aside technical assistance contractor, although those contacts didn't result in any additional board trainings. However, throughout 2021, the active 2% contractor reached out to 41 systems to informally educate them on elements of technical, managerial, and financial capacity that they could implement in order to build capacity of the

system. These outreach efforts were initiated by the capacity development coordinator through analysis of capacity information obtained during routine sanitary surveys. The educational visits provided by the contractor were done with board members and owners of systems and included topics such as asset management, policies and procedures, budgets, rates, water meters, and water loss accounting.

A new contract is planned with a beginning date of July 1, 2022, for individual board trainings and regional board training workshops. Along with requests from systems, individual workshops will be mandatory for systems receiving administrative orders. The contractor will be provided with a priority list of systems that would benefit from training for purposes of outreach and promotion of the regional workshops. Capacity development analysis will be used to place systems on the priority list for workshops

Education and Outreach

In-person training was still a restriction for the capacity development coordinator during 2021, however, the coordinator was able to give two, four-hour training sessions virtually for the Nebraska Clerk Institute and Academy in 2021, along with a recorded slide presentation for a water conference.

During 2021, the coordinator worked with stakeholders to update the capacity development strategy to include asset management; created a new capacity survey and process for obtaining needed capacity information to guide assistance and to provide needed information for DWSRF applicants; guided improvements in the current 2% contract assistance given; began outlining requests for proposals for more effective contracted assistance; worked with systems and EPA to ensure completion of America's Water Infrastructure Act required risk assessments and emergency response plans, including help with submission; began crafting an in-house presentation for board training to be placed on the website; enhanced the capacity development webpages on the agency website; and other activities, including continued support for systems to meet state regulatory requirements for emergency response plan updates.

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 Engineering Section provides engineering plan reviews; issuance of construction permits; inspection of 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.

NDEE received 176 sets of plans and specifications for the construction of water projects for review and approval. In addition, engineering staff conducted 151 inspections of water projects constructed.

Annual Audits

On April 4, 2010, state regulations – Title 179 NAC 7, *Siting, Design and Construction of Public Water Systems – became* effective. As a result, public water systems can enter into a 3-year agreement to construct water distribution main projects without having to submit plans and specifications to NDEE for review and approval. These systems are subject to an annual audit by the Engineering Section as a condition of the agreement. In 2021, 18 annual audits were completed and as of December 31, 2021, a total of 24 public water systems have entered into 3-year agreements with the NDEE.

Drinking Water State Revolving Fund

The engineering staff also participates in the common pre-application review process for federal and state agency loans; grant programs for water and wastewater projects; and the Drinking Water State Revolving Fund (DWSRF) program activities. Following a Kaizen Process, separate engineering review meetings that are focused on the funding of infrastructure projects, was implemented. Establishment of this monthly meeting allows for detailed focus on engineering issues.

The annual DWSRF infrastructure needs survey was sent out to all public water systems. A ranking system developed by NDEE was used to prioritize and establish the funding order for infrastructure projects that could be funded by the DWSRF. The surveys indicated 394 eligible projects with just under $1 billion in infrastructure needs. The DWSRF provided six loans in 2021 for a total of $9,235,000 with $1,634,000 of that provided in forgiveness assistance.

Each year the Clean Water State Revolving Fund (CWSRF), which addresses wastewater, and the DWSRF, which addresses drinking water, 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 community water needs. IUPs also include a priority-funding list for CWSRF and DWSRF projects, listing and prioritizing projects that are submitted by the communities to the program. Every year, IUPs undergo a public hearing and comment period that are presented to the Environmental Quality Council (EQC) for review and approval.

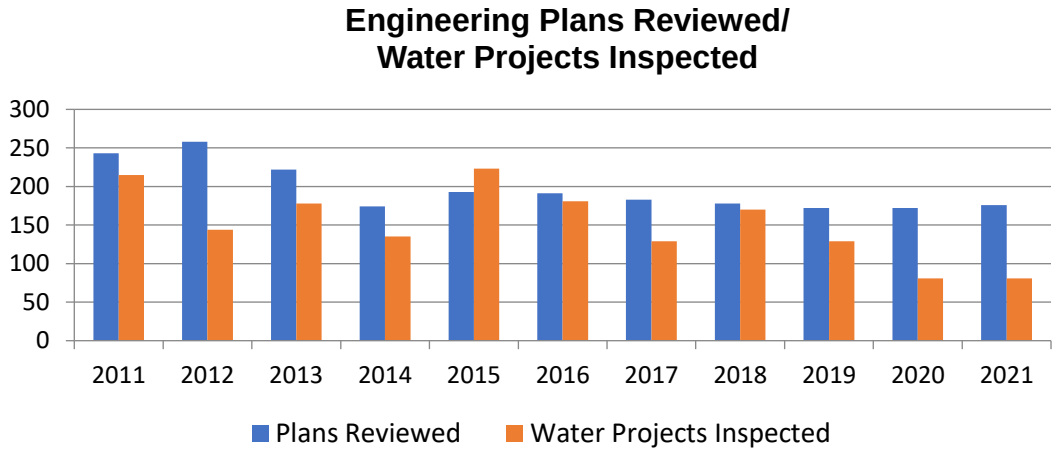
Other Engineering Activities

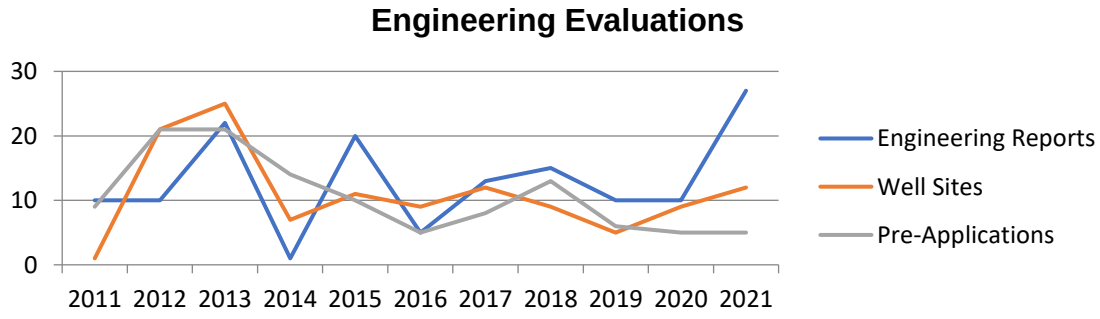
The Engineering Section staff also reviewed justifications provided by professional engineers for any new well siting that does not meet the setback distances identified in Title 179 NAC 7. A total of 12 new well site justifications were reviewed and 11 of these were approved. In addition, the engineering staff worked with city officials to evaluate encroachment issues that may be of concern to existing public drinking water wells. Four encroachment related issues

were evaluated and resolved. In addition, three operation and maintenance manuals for DWSRF projects were reviewed.

SUMMARY OF ENGINEERING SECTION ACTIVITIES
January 1, 2021, to December 31, 2021

ACTIVITIES	NUMBER
Water Projects Received for Review and Approval	176
Water Projects Inspected	81
Engineering Reports for Water System Improvements Evaluated	27
New Water Well Sites Evaluated	12
Common Pre-Applications for Water/Wastewater Projects for Federal and State Financial Assistance Reviewed	5
Operation and Maintenance Manuals for Drinking Water State Revolving Loan Funded Projects Reviewed	3
Three-Year Agreements for Distribution Main Projects—Annual Audits Completed	18
Encroachment Issues	4





Monitoring and Compliance Section

The Monitoring and Compliance (M&C) Section of the Drinking Water Division reviews analytical results for contaminants in drinking water. In this review of analytical results, M&C personnel determine compliance with the SDWA 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. It receives electronic data from the State of Nebraska Environmental Health Laboratory and 4 contract laboratories (Midwest Lab, Hall County, American Ag, and Enviro Services) that perform water analyses for NDEE.

NDEE is preparing for transition to cloud-based software called SDWIS Optimization. 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 the contaminant does not exceed its maximum contaminant level (MCL).

In 2021, only 6 of 83 contaminants for which community public water systems monitor were found to be present above a MCL. That means 77 contaminants, for which monitoring was conducted, were not found above their respective MCL in a PWS in Nebraska.

Monitoring & Compliance enforces nine different federal monitoring rules. Each rule contains a group of similar contaminants. Below is a list of the federal monitoring 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 required 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 103 violations from 59 public water systems in 2021 for exceeding an MCL or failing to properly monitor. More detailed information on each of the monitoring rules follows the summary table below.

Revised Total Coliform Rule (RTCR)

The objective of the Revised Total Coliform Rule (RTCR) is to reduce potential exposure to bacterial contamination in drinking water. Testing for coliform bacteria is a way to indicate whether potentially harmful bacteria may be present. All public water systems are required to routinely monitor for the presence of coliform bacteria and *E.coli,* a type of coliform bacteria. The RTCR establishes a MCL for *E. coli*. Assessments of the PWS and corrective actions are required if *E.coli* bacteria are found. A system is required to issue a Public Notice (PN) if they fail to monitor for coliform bacteria, if *E.coli* bacteria are found, or for failure 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 the Drinking Water Division then reviews it. 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 2021

Type of RTCR Assessment	Number of Assessments Triggered	Number of Systems	% of Systems with Assessments
Level 1	111	111	8.0%
Level 2	76	66	5.0%
Level 2, *E. coli* MCL triggered	11	11	.83%

RTCR Violations 2021

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 – *E. coli* +	11	11	0.6%
Monitoring, Additional Routine, Major Routine	18	18	1.4%

Nitrate-Nitrite Rule

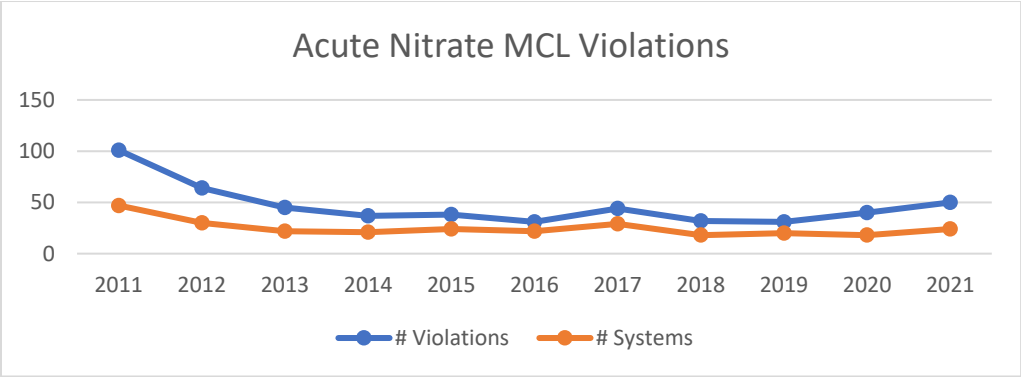
All public water systems monitor for nitrate-nitrite. Adverse health effects may be experienced when pregnant women, infants under six months of age, and nursing mothers, consume high levels of nitrate or nitrite in drinking water. A system is out of compliance when it

receives one monitoring or MCL violation. A system is issued an Administrative Order to correct a nitrate contamination problem if two nitrate-nitrite violations are issued within a consecutive three-quarter period.

A summary of the 2021 nitrate-nitrite violations is presented below along with historic data. Nitrate MCL violations have decreased significantly in Nebraska since 2011.

Nitrate-Nitrate Violations 2021

Violation	Number of Violations	Number of Systems	% of Systems with Violations
MCL – 10 mg/l	50	24	1.8%
Monitoring	5	3	0.2%



Public Notification Rule 2021

Public Notification is required if a PWS receives a MCL, Monitoring, or acute violation. There were two systems in violation of the PN Rule.

Rule	Number of Violations	Number of Systems
Public Notification Rule	2	2

Consumer Confidence Rule 2021

The CCR 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 was one system in violation of the CCR Rule.

Rule	Number of Violations	Number of Systems
Consumer Confidence Rule	1	1

MCL Violations for Chronic Contaminant Exposure

Ingestion of bacteria and nitrate-nitrite in drinking water are typically associated with acute (i.e., sudden) adverse health effects. Exposure to other drinking water contaminants are considered to be associated with chronic health effects (i.e., the adverse health effect is evident

only after repeated exposure or ingestion over a long period of time. Depending on the contaminant, routine monitoring occurs every year, every three years, or every six years (per EPA). If a contaminant is detected, monitoring is increased to quarterly.

If the level decreases below the MCL, the monitoring frequency may be reduced. A public water system is issued an AO after three quarterly MCL violations are issued in a rolling 12-month period. An AO is issued immediately if the contaminant is found at a level that may pose a health risk.

The tables below show contaminants and the number of violations issued for each.

Volatile Organic Chemical (VOC) Violations 2021

(Per the SDWA, only community and non-transient, non-community systems monitor for VOCs.)

VOC Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	% of Systems with Violations
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%
1,1-Dichloroethylene	0	0	0	0.0%
Dichloromethane	0	0	0	0.0%
1,2-Dichloropropane	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%
1,2,4-Trichlorobenzene	0	0	0	0.0%
Trichloroethylene	0	0	0	0.0%
1,1,1-Trichloroethane	0	0	0	0.0%
1,1,2-Trichloroethane	0	0	0	0.0%
Vinyl chloride	0	0	0	0.0%
Xylenes (total)	0	0	0	0.0%

Inorganic Chemical Contaminant (IOC) Violations 2021

(Per the SDWA, only Community and Non-transient, non-community systems monitor for IOCs.)

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	12	0	6	0.45%
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	1	0	1	0.07%
Sodium	0	0	0	0%
Thallium	0	0	0	0%

Non-Volatile Synthetic Organic Chemical (SOC) Contaminants 2021

(Per the SDWA, only community and non-transient, non-community systems monitor for SOCs.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with Violations
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%
2,4-D	0	0	0	0%
2,3,7,8-TCDD (Dioxin)	0	0	0	0%
2,4,5-TP	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	1	0	1	0.07%
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 2021

(Per the SDWA, only Community water systems monitor for Radionuclides.)

Contaminant	Number of MCL Violations	Number of Monitoring Violations	Number of Systems	Systems with Violations
Combined Radium (Radium -226 and Radium -228)	0	0	0	0%
Gross Alpha Including Radon and Uranium	0	0	0	0%
Uranium Mass Combined Uranium	9	0	3	0.22%

Disinfection Byproduct Violations 2021

(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 Haloacetic Acids	0	0	0
Total Trihalomethanes	0	0	0

Disinfection Byproducts Stage 1 Monitoring

Violation	# Violations	# Systems
Qualified Operator Failure	0	0

Disinfection Byproducts Monitoring

	# Violations	# Systems
Monitoring	0	0

Disinfectant Residual Contamination Violations

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

Lead and Copper Rule Violations

(Per the SWDA, 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	0	0	0%

Surface Water Treatment Rule Violations 2021

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

Ground Water Rule 2021

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

Administrative Orders 2021

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	1	0
Population Affected	0	0	150	0

Variances and Exemptions

No variances or exemptions were issued in 2021.

MCL Violations for Chronic Contaminants

Population Affected by Various Contaminants

Contaminant	Number of MCL Violations	Number of Systems	Population Affected
Arsenic	12	6	1430
Selenium	1	1	1307
Uranium Mass	9	3	630

CHAPTER 7:
Energy Programs

The primary energy-related responsibilities focus on 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 and administering the long standing and successful Dollar and Energy Saving Loan (DESL) program. The WAP and DESL program provide financial resources for Nebraska citizens to install upgrades to their homes or businesses to make them more energy efficient and decrease energy costs.

City Impact, a Lincoln-based non-profit, had all new LED lighting installed in 2021 with help from a low-interest loan through the DESL program.

A comprehensive annual report on energy activities is required by statute and the 2022 report will be included in a separate report submitted to the Governor and the Clerk of the Legislature by February 15, 2023. The State Energy Annual Report for 2021 may be found at http://dee.ne.gov/publica.nsf/PubsForm.xsp?documentId=E2EE6EFC6B970FF1862587EB007391A4&action=openDocument

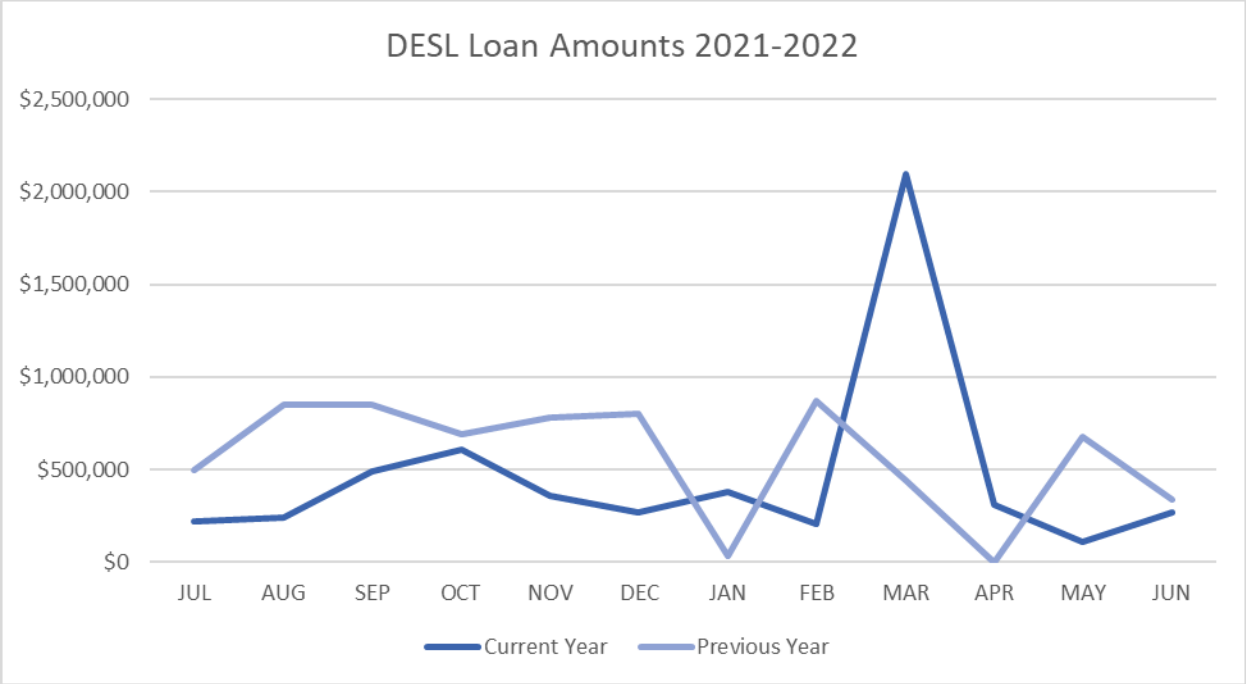
Energy

Dollar and Energy Savings Loan Program

The Dollar and Energy Saving Loans (DESL) program has helped tens of thousands of Nebraska residents, local businesses, school districts, and municipalities make their homes and buildings more energy efficient and helped 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; providing better thermal resistance with added insulation and replacing old windows and doors; installing large and small-scale solar projects; and constructing new, energy-efficient housing.

In fiscal year 2022, the DESL program helped finance over $8.35 million for 250 loans that improved energy efficiency for 266 new projects. Over that time, on residential projects alone, the DESL program is estimated to have saved 45,978 kilowatt-hours of electricity, 37,830 therms of natural gas and reduced carbon emissions by almost 5,205 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 $385.5 million.

The following chart shows the loans disbursed for FY2020/2021 and FY2021/2022.



DESL Project Highlights from Fiscal Year 2022

- Lighting and HVAC projects for three public school districts totaling over $1.7 million, including a $1.2 million project for Wynot Public Schools
- Seventeen new solar installations totaling over 715 peak kilowatt hours, including six large-scale agricultural projects and three commercial projects totaling over $1.2 million
- $265K for a new energy efficient home in Gibbon
- $32K of insulation for a renovation project in downtown Emerson

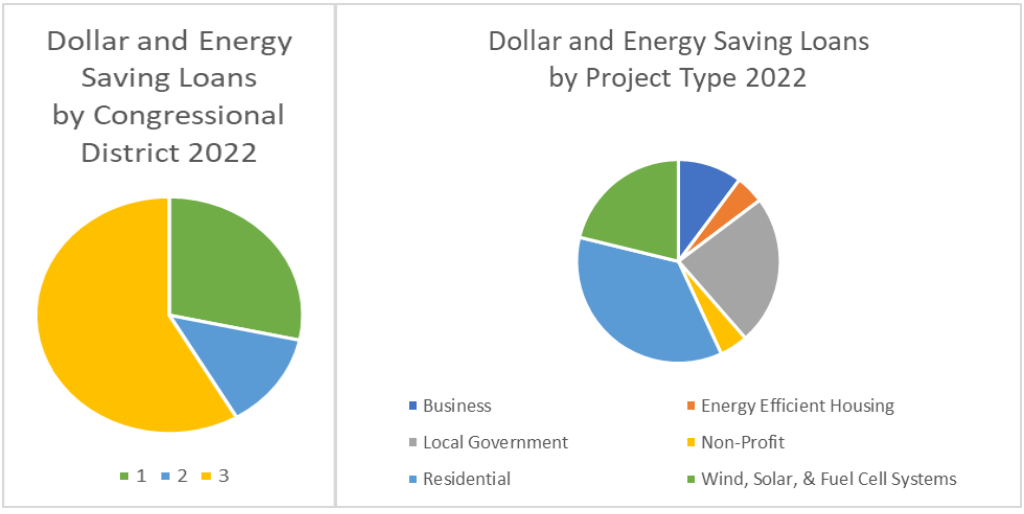
$38K Lighting Retrofit Project for Lincoln Non-profit, City Impact (June 2022).

$364K for Weeping Water (left) and $170K for Wakefield (right), Public School Lighting Retrofit Projects (June 2022).

$35K Photo Voltaic Installation peaking 16,000 watts at 4 Seasons Farms, LLC in Ashland (June 2022).

New Energy Efficient Housing, Gibbon (Buffalo County Assessor, 2021), Blower Door Testing (November 2021).

The following charts show percentage of loans participated by congressional districts and project types for FY2021/2022.



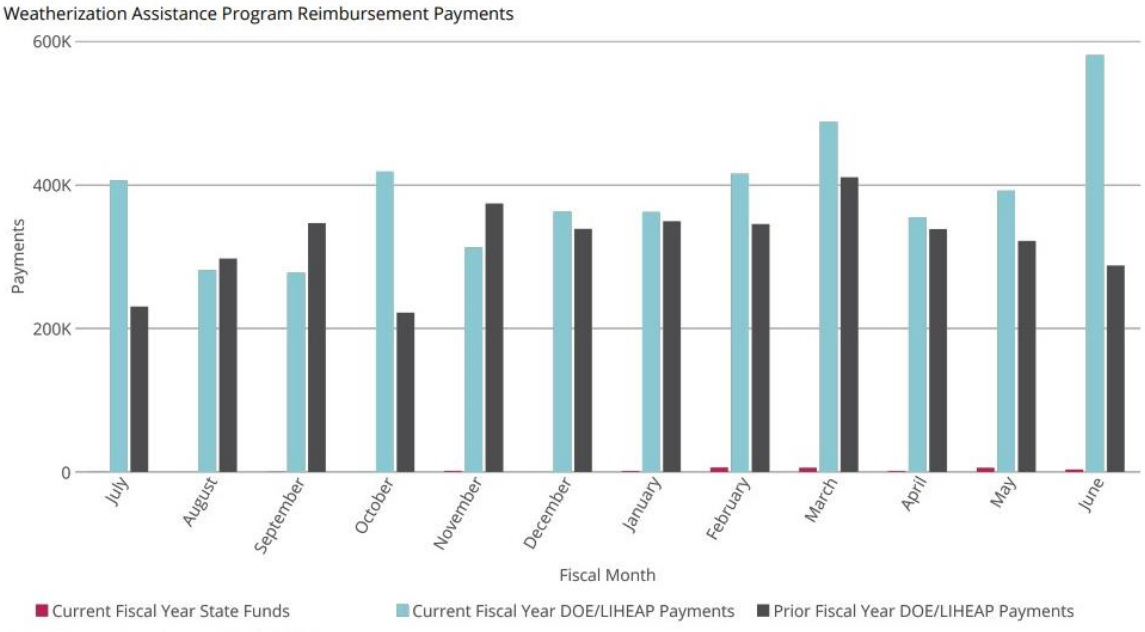
Weatherization Assistance Program

This federally funded 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.

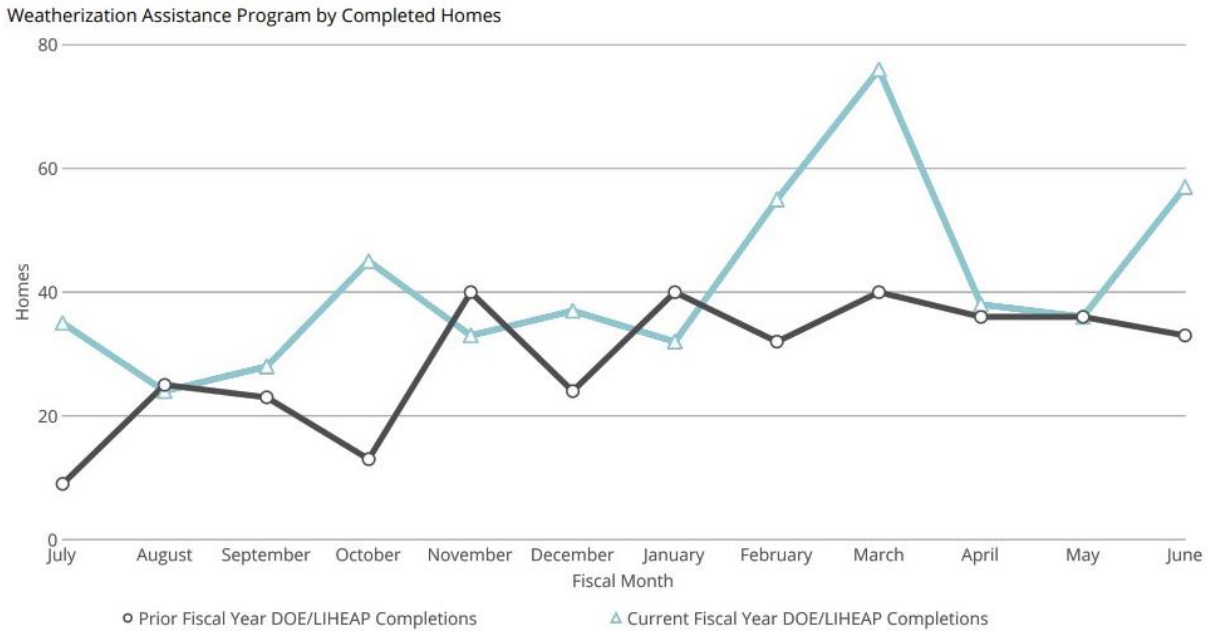
The types of improvements vary based on an energy audit analysis of the home; improvement investment averages between $5,000 and $7,500 per home, excluding the cost of health and safety improvements such as furnace repairs. The most common improvements are adding insulation, air sealing the home, repairing 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, 2021 and June 30, 2022, 340 homes were weatherized across the state, helping to reduce the energy burden for low-income Nebraskans. Weatherization Program staff inspect a minimum of 10-15% of all completed homes to ensure the quality of work performed.

The program receives funding from three sources: DOE's Weatherization Assistance Program, Low-Income Home Energy Assistance Program (LIHEAP) financed through the Nebraska Department of Health and Human Services and State General Funds. Since the WAP began in 1977, $227 million has been provided to make energy efficiency improvements in 70,667 homes. The Department is allowed to use $600,000 from the LIHEAP budget to use for Heating and Cooling Repair and Replacement Assistance (HCRRA) with a limit of $5,000 per client. This program, started in January of 2019, to offer furnace and AC repair or replacement assistance to extremely low-income clients.

The following chart shows the Weatherization Assistance Programs reimbursements for FY2020/2021 and FY2021/2022.



The following chart shows the Weatherization Assistance Programs production for FY2020/2021 and FY2021/2022.



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 US 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 the DESL program and serve as a primary funding source for several other efforts that are the responsibility of the Energy Programs. 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 through a training partnership with the Midwest Energy Efficiency Alliance (MEEA) and partnerships with other organizations to provide on-site trainings. Through the partnership with MEEA, more than two dozen virtual and in-person training sessions have been held on many different aspects of the Nebraska Energy Code. The NDEE is continuing virtual and in-person training efforts through this partnership and will be hosting practical trainings with an emphasis on teaching stakeholders in Nebraska how to perform the new testing and verification methods defined in the Nebraska Energy Code.

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
- Annual Report: https://neo.ne.gov/programs/shopp/shopp.html

Nebraska Energy Security Initiative

In the first half of 2022, comprehensive Local Energy Security Plans were developed for the eight Planning, Exercising, and Training (PET) regions in Nebraska. The Plans aid local officials and emergency managers to increase their jurisdictions' energy resiliency. The Plans identify regional energy suppliers, identify primary contacts and key assets, and develop an energy assurance crisis communications protocol. The Plans' development is part of the US DOE State Energy Program's Nebraska Energy Security Initiative to address assurance and security concepts within the existing framework of emergency management and homeland security.

CHAPTER 8:

Expenditure and Budget Summary

The following information summarizes Department expenditures for fiscal year 2022 and outlines budget projections for fiscal year 2023. 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 FY22 expenditures for each federal grant, including the state match.

Chart B lists actual FY22 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 FY23 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 FY23 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 FY22

Grant / Program Title	Grant $	Match $	Total $
Clean Water State Revolving Fund	12,034,361	573,776.00	12,608,137
Drinking Water State Revolving Fund	10,155,545	545,636.66	10,701,182
Performance Partnership	6,073,591	2,171,160.06	8,244,751
Weatherization	6,354,262		6,354,262
319 H Non-Point Source	3,619,755		3,619,755
Public Water Supply	1,286,011	361,878	1,647,889
Dollar & Energy Savings Loan (DESL)	1,373,806	118,908	1,492,714
Leaking Underground Storage Tanks	960,249	10,024	970,273
Clean Diesel	735,185		735,185
State Energy Program (SEP)	476,308	46,666	522,973
Section 128 (a) State Response	606,188		606,188
Department of Defense	606,188		606,188
PM 2.5 Ambient Air Monitoring	352,380		352,380
Section 106 Monitoring	306,160		306,160
Lead in Schools/Daycares	261,053		261,053
Superfund Pre-remedial	250,327		250,327
Superfund Core	152,919	9,075	161,994
Superfund Management Assistance	111,155		111,155
State Heating Oil and Propane	54,878	17,550	72,428
604 B Water Quality Management	73,464		73,464
WIIN-Martinsburg	23,550		23,550
Superfund UNL Mead	10,646		10,646
Totals	**$ 45,877,980**	**$ 3,854,674**	**$ 49,732,654**
Non-grant federal expenditures*	$ 2,024,135		
*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 programrm, 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 36.87% was negotiated with EPA for FY22 and charged against direct payroll cost to cover agency administrative expenses

Chart B - Actual Expenditure of State Funds for State Programs for FY22 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Distribution of Aid	Total
Petroleum Release Remedial Action Act	051	C	1,184,783	500,967	6,803	193,374	7,318,347	3,381,283	12,585,556
Waste Reduction & Recycling	091	C	227,312	128,813	221	-	-	3,804,370	4,160,715
Litter Reduction	024	C	191,965	82,490	217	-	-	2,016,499	2,291,171
Emission Inventory - Title V	033	C	1,745,023	463,569	10,176	-	5,261	-	2,224,029
Volkswagen	065	C	18,759	4,678	-	-	-	1,925,957	1,949,394
Integrated Solid Waste Management	004	C	1,366,847	518,165	15,691	-	13,272	-	1,913,974
Ag - Livestock	016	G/C	1,354,741	378,962	8,371	-	21,527	-	1,763,602
Clean Water SRF	007	C	492,880	191,635	4,831	-	87,801	37,366	814,513
Environmental Safety	209/210	G/C	479,918	115,859	18,675	-	4,521	-	618,972
Superfund State Cost Share	023	C	46,175	10,943	70	-	529,149	57,265	643,603
Well Drillers	287	C	353,847	135,112	20,888	-	-	-	509,847
Engineering Reviews	061	G	439,944	5,288	204	-	7,874	-	453,310
Engineering Plan Review	285	C	310,422	26,397	406	-	-	-	337,225
Energy Admin/Special Projects	816/841	C	101,474	26,251	154	-	-	23,512	151,392
Private Onsite Wastewater Cert & Registration	030	G/C	164,631	79,876	540	-	-	-	245,047
Remedial Action Plan Monitoring Act	036	C	114,194	31,727	22	-	-	-	145,943
Operator Certification	040	C	46,609	24,742	1,750	-	-	-	73,101
Chemigation	034	C	44,375	20,142	-	-	-	-	64,518
Air Construction Permits	020	C	44,375	13,465	-	-	-	-	57,840
Private Onsite Wastewater Permit & Approval	037	G/C	20,873	69,168	-	-	-	-	90,041
Totals			**8,749,148**	**2,828,249**	**89,020**	**193,374**	**7,987,752**	**11,246,253**	**31,093,796**

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 36.87% was negotiated with EPA for FY22 and charged against direct payroll cost to cover agency administrative expenses

Chart C - Proposed Budget for Each Federal Grant Program for State FY23			
Grant / Program Title	**Grant $**	**Match $**	**Total $**
Clean Water State Revolving Fund	27,783,817	626,224	28,410,041
Drinking Water State Revolving Fund	18,150,749	1,744,811	19,895,560
Performance Partnership	6,441,462	1,646,217	8,087,679
Weatherization	4,613,829	176,488	4,790,317
Reverse Osmosis	4,000,000		4,000,000
Dollar & Energy Savings Loan (DESL)	3,115,224	63,576	3,178,800
319 H Non-Point Source	2,919,681		2,919,681
State Energy Program (SEP)	1,688,154	422,039	2,110,193
Public Water Supply	1,289,069	552,458	1,841,527
Leaking Underground Storage Tanks	960,249	87,801	1,048,050
PM 2.5 Ambient Air Monitoring	810,945		810,945
Superfund Core	534,706	59,412	594,118
Clean Diesel	302,558		302,558
Lead in Schools/Daycares	255,000		255,000
Section 106 Monitoring	236,455		236,455
Section 128 (a) State Response	219,938		219,938
Department of Defense	110,969		110,969
Superfund Management Assistance	103,249		103,249
Superfund Pre-remedial	70,373		70,373
604 B Water Quality Management	62,417		62,417
WIIN-Martinsburg	52,853		52,853
State Heating Oil and Propane	6,531	12,130	18,661
Superfund UNL Mead	7,674		7,674
Totals	**$ 73,735,902**	**$ 5,391,156**	**$ 79,127,058**
Non-grant federal expenditures*	3,779,464		
*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 38.76% was negotiated with EPA for FY23 and charged against direct payroll cost to cover agency administrative expenses			

Chart D - Proposed Budget of State Funds for State Programs for FY23 Including Aid

Program	Subprogram	Fund Type	Personal Services	Operating Expenses	Travel	Capital Outlay	Consulting /Contracting	Distribution of Aid	Total
Petroleum Release Remedial Action Act	051	C	1,181,006	2,247,418	6,000	-	7,500,000	6,950,601	17,885,025
Waste Reduction & Recycling	091	C	178,843	833,248	500	-	-	4,800,000	5,812,591
Volkswagen	065	C	51,525	212,329	500	-	-	4,000,000	4,264,354
Emission Inventory - Title V	033	C	2,673,996	1,100,521	11,000	-	5,500	-	3,791,017
Litter Reduction	024	C	137,798	769,524	500	-	-	2,100,000	3,007,822
Integrated Solid Waste Management	004	C	1,469,166	1,314,274	16,000	-	15,000	-	2,814,440
Superfund State Cost Share	023	C	65,777	709,004	-	-	550,000	300,000	1,624,781
Ag - Livestock	016	G/C	1,262,453	301,362	12,000	-	-	-	1,575,815
Energy Admin/Special Projects	816	C	408,459	594,848	-	-	-	282,950	1,286,257
Clean Water SRF	007	C	292,143	148,373	4,200	-	63,000	760,000	1,267,716
Drinking Water SRF	087	C	391,727	709,460	7,500	-	150,000	-	1,258,687
Well Drillers	287	C	61,364	874,456	20,500	-	-	-	956,320
Engineering Plan Review	285	C	385,885	527,500	500	-	-	-	913,885
Private Onsite Wastewater Cert & Registration	030	G/C	231,336	618,199	3,000	-	-	-	852,535
Clean Water Act 404	404	G	207,368	310,159	3,000	-	200,000	-	720,527
Air Construction Permits	020	C	76,092	586,914	-	-	-	-	663,006
Environmental Safety	209/210	G/C	564,728	52,500	15,000	-	5,000	-	637,228
Private Onsite Wastewater Permit & Approval	037	C	14,052	573,560	-	-	-	-	587,612
Operator Certification	040	C	49,575	529,324	2,500	-	-	-	581,399
Chemigation	034	C	27,790	543,029	-	-	-	-	570,819
Engineering Reviews	061	G	415,497	(0)	-	-	-	-	415,497
Nebraska Environmental Response	001	C		300,000	-	-	-	-	300,000
Totals			**$ 10,146,580**	**$ 13,856,000**	**$ 102,700**	**$ -**	**$ 8,488,500**	**$ 19,193,551**	**$ 51,787,331**
General Funds used for operations			284,316						
FUND TYPE LEGEND									
G - Program Expends General Funds									
C - Program Expends Cash Funds			An indirect rate of 38.76% was negotiated with EPA for FY23 and charged against direct payroll cost to cover agency administrative expenses						
G/C - Program Expends Both General and Cash Funds									

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 and energy programs.

Waste Management Aid Programs

Following is a summary of funds provided in FY2022 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 2022, 51 Litter Reduction and Recycling grants were awarded, totaling $2,179,271. The grants were awarded in three categories: Public Education, $1,535,370; Cleanup, $56,349; and Recycling, $587,552. 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 CY2022, 104 projects totaling $4,482,144 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 FY2022, the program provided $30,753 to 25 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 FY2022, the program provided $72,591 to five 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 Waste Grants Programs 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 $254 million has been disbursed since the program began. The program provided $3.3 million to 119 sites for investigation and cleanup in FY2022.

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** (CWSRF) 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 FY2022, the CWSRF funded projects totaling $205,548,527 in loans and $1,707,383 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 FY2022, the program provided financial assistance to public water system projects totaling $71,299,064, of which disadvantaged communities received $6,830,772 in forgiveness funding.

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

Energy Aid Programs

A. Dollar and Energy Savings Loan Program

The Dollar and Energy Saving Loans (DESL) program assists Nebraska residents, local businesses, school districts, and municipalities in making their homes and buildings more energy efficient. The program also helps 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.

In Fiscal year 2022, the DESL program helped finance $8.35 million in 266 projects. 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 $385.5million.

B. Weatherization Assistance Program

The Weatherization Assistance Program (WAP) enables low-income families in Nebraska to reduce their energy bills by making their homes more energy efficient.

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. Between July 1, 2021, and June 30, 2022, 340 homes were weatherized across the state, helping to reduce the energy burden for low-income Nebraskans. Since the WAP began in 1977, $227 million has been provided to make energy efficiency improvements in 70,667 homes.

Seven community action agencies and one non-profit agency are responsible for implementing the home weatherization improvements in Nebraska.

Additional information about these programs can be found in the Energy Programs portion of Chapter 7.

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. The agency offers training opportunities, tuition assistance and flexible and part-time remote work schedules.

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

These figures include new hires, promotions, transfers and classification upgrades. Figures for Fiscal Year 2022 are from July 1, 2021, through June 30, 2022.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Director, Deputy Director & Environmental Manager	0	0	1	5	0	0	0	1	4	1
Environmental Supervisor, Accounting & Finance Manager, IT Manager, Division Chief, Human Resource Specialist/Manager	1	5	0	4	0	1	2	5	8	7
Unit Supervisor (Classification Eliminated 2021)	1	1	2	0	0	0	3	1	***	0
Administrative Program Officer I									2	0
Human Specialist, Training Coordinator	0	0	1	0	1	0	1	0	0	0
Process Improvement Coord/Legislative Coord					1	0	0	0	1	0
Federal Aid Administrator, Financial Assurance Coordinator, Accountant	0	0	0	1	1	1	0	0	1	5
Office Specialist, Administrative Specialist, Accounting Clerk, Paralegal	2	4	4	4	1	3	2	3	8	6
Information Technology, Marketing & Communication Specialist, Research Analyst	0	0	0	0	2	0	2	2	0	3
Attorney I, II & III	0	2	0	2	1	0	0	1	1	2
Engineer & Professional Engineers	2	7	2	4	5	4	6	1	8	11
Environmental Quality Compliance Specialist (Classification Eliminated 2021)	1	0	0	1	1	0	0	3	***	0
Environmental Specialist I, II or III (Classification Name Change 2021)	10	7	11	19	8	11	9	15	12	34
Geologist, Groundwater I & II (Classification Eliminated 2021)	4	2	3	1	0	0	0	2	2	0
Environmental Assistance Coordinator (Classification Eliminated 2021)	1	0	0	0	0	1	1	1	***	0
Energy Conservation Program Specialist/Energy Conservation Loan Program Coordinator								1	2	0
TOTALS	22	28	24	41	21	21	26	36	50	6

CHAPTER 11:
Financial Assurance Requirements

Section 81-1505(21) provides the statutory authority for the Department to develop, and the Environmental Quality 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	$ 4,998,883	$ 2,179,284	Enterprise Fund	City of Alliance
Beatrice Area SW Agency	Beatrice	MSWDA	07/12/00	$ 7,411,662	$ 7,411,662	Financial Test	City of Beatrice
Butler County Landfill	David City	MSWDA	10/03/08	$ 16,036,756	$ 7,709,449	Trust Fund	US Bank
Douglas County Landfill	Bennington	MSWDA	02/16/04	$ 14,284,264	$ 14,284,264	Surety Bond	Evergreen Ntl. Indemnity Co.
G & P Dev Landfill	Milford	MSWDA	10/03/08	$ 13,238,470	$ 3,561,480	Trust Fund	US Bank
Gering Landfill	Gering	MSWDA	02/13/96	$ 2,421,643	$ 1,986,281	Enterprise Fund	City of Gering
L.P. Gill Landfill	Jackson	MSWDA	08/18/21	$ 14,309,056	$ 14,309,056	Surety Bond	Travelers Casualty & Surety
Grand Island Landfill	Grand Island	MSWDA	03/31/96	$ 10,991,853	$ 10,991,853	Financial Test	City of Grand Island
Hastings Area Landfill	Hastings	MSWDA	03/18/13	$ 6,337,136	$ 4,036,722	Enterprise Fund	City of Hastings
Hastings Landfill	Hastings	Sanitary LF	10/01/97	$ 114,572	$ 33,073	Faith & Credit	City of Hastings
Holdrege Landfill	Holdrege	MSWDA	07/29/96	$ 3,412,355	$ 2,353,397	Enterprise Fund	City of Holdrege
J-Bar-J Landfill	Ogallala	MSWDA	03/28/00	$ 6,952,361	$ 6,952,361	Performance Bond	Evergreen Ntl. Indemnity Co.
Kearney Landfill	Kearney	MSWDA	03/31/94	$ 8,866,074	$ 4,443,320	Trust Fund	Union Bank & Trust
Kimball Landfill	Kimball	MSWDA	05/10/96	$ 1,866,841	$ 1,279,426	Enterprise Fund	City of Kimball
Lexington Landfill	Lexington	Sanitary LF	07/25/96	$ 260,809	$ 274,287	Faith & Credit	City of Lexington
Lexington Area Agency	Lexington	MSWDA	01/19/97	$ 3,766,036	$ 2,479,047	Enterprise Fund	Lexington Area SW Agency
Lincoln Bluff Road Landfill	Lincoln	MSWDA	04/01/96	$ 27,828,885	$ 27,828,885	Financial Test	City of Lincoln
Loup Central Landfill	Elba	MSWDA	04/09/96	$ 2,866,840	$ 1,247,532	Trust Fund	Citizens Bank & Tr St. Paul
McCook Landfill	McCook	Sanitary LF	03/04/96	$ 302,127	$ 86,322	Faith & Credit	City of McCook
NE Ecology Landfill	Geneva	MSWDA	10/03/08	$ 3,446,372	$ 1,205,400	Trust Fund	US Bank
NNSWC Landfill	Clarkson	MSWDA	04/09/96	$ 21,121,677	$ 10,336,066	Enterprise Fund	NNSWC
Pheasant Point Landfill	Bennington	MSWDA	03/01/12	$ 35,098,538	$ 31,944,083	Surety Bond	Western Surety
Sarpy County Landfill	Papillion	MSWDA	03/31/96	$ 3,597,174	$ 3,937,989	Enterprise Fund	Sarpy County
Sidney Landfill	Sidney	MSWDA	02/11/97	$ 2,648,225	$ 1,182,976	Enterprise Fund	City of Sidney
SWANN Landfill	Chadron	MSWDA	09/25/97	$ 2,421,605	$ 882,534	Enterprise Fund	SWANN
Valentine Landfill	Valentine	MSWDA	04/09/96	$ 2,220,009	$ 987,146	Enterprise Fund	City of Valentine
York Landfill	York	Sanitary LF	05/14/96	$ 108,478	$ 12,059	Faith & Credit	City of York
York Area SW Landfill	York	MSWDA	05/14/96	$ 5,770,550	$ 2,539,493	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	$ 319,957	$ 320,004	Escrow Account	Bank of Bennington
Alliance C & D Landfill	Alliance	Const./Demol.	12/02/99	$ 426,364	$ 141,472	Enterprise Fund	City of Alliance
Anderson Excavating C & D	Omaha	Const./Demol.	11/15/12	$ 1,062,687	$ 1,062,687	Letter of Credit	Availa Bank
Arnold C & D Landfill	Arnold	Const./Demol.	07/24/00	$ 98,089	$ 53,581	Enterprise Fund	Village of Arnold
Beatrice Area SW Agency	Beatrice	Const./Demol.	10/15/12	$ 1,134,392	$ 1,134,392	Financial Test	City of Beatrice
Benkelman C & D Landfill	Benkelman	Const/Demol.	10/15/06	$ 99,044	$ 27,878	Enterprise Fund	City of Benkelman
Broken Bow C & D Landfill	Broken Bow	Const/Demol.	11/23/07	$ 138,927	$ 50,128	Enterprise Fund	City of Broken Bow
Bud's Sanitary Service C & D	Newman Grove	Const./Demol.	06/01/97	$ 51,535	$ 51,535	Letter of Credit	First Natl. Bank Newman Gr
Eco-Storage C & D Landfill	Omaha	Const./Demol.	06/03/10	$ 43,606	$ 43,606	Surety Bond	Evergreen Ntl Indemnity Co.
Franklin C&D Landfill	Franklin	Const./Demol.	11/08/10	$ 70,647	$ 37,266	Enterprise Fund	City of Franklin
Gage County C & D Landfill	Beatrice	Const./Demol.	02/23/98	$ 78,027	$ 78,027	Letter of Credit	Security First Bank
Hawkins Construction C & D	Omaha	Const./Demol.	02/11/21	$ 438,688	$ 438,688	Surety Bond	Western Surety Co.
Holdrege C & D Landfill	Holdrege	Const/Demol.	05/01/09	$ 341,186	$ 91,484	Enterprise Fund	City of Holdrege
Imperial C&D Landfill	Imperial	Const./Demol.	06/01/01	$ 161,309	$ 89,460	Enterprise Fund	City of Imperial
KGP Services C & D	Norfolk	Const/Demol.	11/06/03	$ 106,237	$ 109,040	Escrow Account	Elkhorn Valley Bank & Trust
Kimball C & D Landfill	Kimball	Const./Demol.	04/01/01	$ 191,314	$ 74,177	Enterprise Fund	City of Kimball
Lead Waste Mgmt C&D Landfill	Waterbury	Const./Demol.	05/28/14	$ 79,110	$ 79,110	Letter of Credit	Adrian State Bank
L.P. Gill Landfill C & D	Jackson	Const/Demol.	08/18/21	$ 478,551	$ 478,551	Surety Bond	Travelers Casualty & Surety
Lexington C & D Landfill	Lexington	Const./Demol.	09/30/98	$ 364,085	$ 181,955	Enterprise Fund	Lexington Area SW Agency
Lincoln North 48th St. C & D	Lincoln	Const./Demol.	04/01/96	$ 3,828,542	$ 3,828,542	Financial Test	City of Lincoln
Loup Central C & D Landfill#2	Elba	Const./Demol.	01/28/01	$ 190,052	$ 72,943	Trust Fund	Citizens Bank & Tr. St. Paul
NPPD Gerald Gentleman	Sutherland	Const./Demol.	04/01/95	$ 287,249	$ 275,830	Financial Test	NPPD
O'Neill C & D Landfill	O'Neill	Const./Demol.	06/01/01	$ 241,694	$ 72,352	Enterprise Fund	City of O'Neill
O'Neill Wood Resources C & D	Grand Island	Const./Demol.	10/10/18	$ 507,685	$ 61,079	Trust Fund	Minden State Bank & Trust
PAD LLC C & D Landfill	Hastings	Const./Demol.	03/30/22	$ 580,444	$ 580,444	Letter of Credit	Five Points Bank
Plainview C & D Landfill	Plainview	Const./Demol.	09/26/00	$ 77,484	$ 78,050	Enterprise Fund	City of Plainview
1221 Rainwood Road C & D	Omaha	Const/Demol.	08/10/21	$ 226,629	$ 226,629	Surety Bond	North American Specialty Ins.
Red Cloud C&D Landfill	Red Cloud	Const/Demol.	04/04/17	$ 107,460	$ 18,226	Enterprise Fund	City of Red Cloud
Schmader C & D Landfill	West Point	Const/Demol.	07/27/12	$ 216,243	$ 216,243	Letter of Credit	Charter West Ntl Bank
Sidney C & D Landfill	Sidney	Const./Demol.	11/23/99	$ 195,115	$ 64,604	Enterprise Fund	City of Sidney
Three Valleys C & D Landfill	Indianola	Const./Demol.	02/24/10	$ 181,949	$ 181,949	Letter of Credit	McCook Ntl Bank
York C & D Landfill	York	Const/Demol.	12/01/07	$ 881,788	$ 190,324	Enterprise Fund	City of York
Fossil Fuel Combustion Ash (FFCA), Industrial Waste Landfills, Monofills							
Ash Grove Cement Co.	Louisville	Indus. Waste	03/01/03	$ 4,043,181	$ 4,043,181	Insurance Policy	Great American E&S Ins. Co.
Clean Harbors Technology	Kimball	Monofill	07/31/20	$ 2,953,236	$ 2,953,236	Insurance Policy	Great American Ins. Co.
Fremont Utilities	Fremont	FFCA	05/28/96	$ 3,982,088	$ 977,499	Enterprise Fund	City of Fremont
Hastings Utilities	Hastings	FFCA	02/01//01	$ 6,599,850	$ 2,693,676	Enterprise Fund	City of Hastings & PPGA
NPPD Gerald Gentleman 4	Sutherland	FFCA	04/01/95	$ 7,850,693	$ 7,850,693	Financial Test	NPPD

NPPD Sheldon Station 4	Sheldon	FFCA	07/01/01	$ 2,205,789	$ 2,118,100	Financial Test	NPPD
OPPD NE City 1	NE City	FFCA	04/04/95	$ 2,367,092	$ 2,367,092	Financial Test	OPPD
OPPD NE City 2	NE City	FFCA	06/30/09	$ 6,569,185	$ 6,569,185	Financial Test	OPPD
OPPD North Omaha	Omaha	FFCA	04/04/95	$ 9,678,610	$ 9,678,610	Financial Test	OPPD
Platte Generation	Grand Island	FFCA	03/18/14	$ 2,468,209	$ 1,825,628	Financial Test	City of Grand Island
Waste Management of NE	Bennington	Indus. Waste	03/01/12	$ 1,563,773	$ 1,563,773	Surety Bond	Lexon Insurance Co.
Transfer Stations, Material Recovery Facilities, Compost Sites							
AltEn LLC	Mead	Compost	04/01/07	$ 192,513	$ 192,513	Escrow Account	American Ntl Bank
Bud's Sanitary Service	Newman Gr.	Transf. Station	05/19/17	$ 2,970	$ 2,970	Letter of Credit	First Natl. Bank, NG
Custer Transfer Station	Broken Bow	Transf. 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	Transf. Station	06/27/12	$ 12,493	$ 12,493	Escrow Account	Frontier Bank
Fremont CRD, Inc.	Fremont	Transf. Station	07/02/03	$ 13,125	$ 13,125	Surety Bond	Capitol Indemnity Corp
King Transfer Station	Walthill	Transf. Station	04/02/96	$ 1,821	$ 2,023	Escrow Account	Charter West Bank
Medi-Waste Disposal	Lincoln	Processing Fac	01/24/18	$ 36,036	$ 36,036	Surety Bond	Cincinnati Ins. Co.
Prairieland Gold Capital LLC	Firth	Compost	07/13/22	$ 357,608	$ 357,608	Letter of Credit	United Bank & Trust
River City Recycling	Omaha	Mat. Recovery	01/01/01	$ 55,920	$ 55,920	Escrow Account	US Bank Ntl Assoc
Sarpy County	Papillion	Transf. Station	04/17/12	$ 95,650	$ 95,650	Surety Bond	Travelers Surety Co. of Amer.
Seneca Sanitation	Dubois	Transf. 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	Central City	Transf. Station	05/30/13	$ 9,223	$ 9,223	Surety Bond	Platte River Ins Co.
Waste Connections of NE	Gering	Transf. Station	08/15/03	$ 25,831	$ 25,831	Surety Bond	Evergreen Ntl. Indemnity Co.
Waste Connections of NE	Ord	Transf. Station	07/02/03	$ 9,317	$ 9,317	Surety Bond	Platte River Ins Co.
RCRA Closure and RCRA Post-Closure (PC)							
Loveland Products	Fairbury	RCRA PC & CA	12/10/15	$ 2,887,452	$ 2,887,452	Letter of Credit	Bank of Nova Scotia
Bosch Security Systems	Lincoln	RCRA PC	11/04/21	$ 10,344	$ 10,344	Letter of Credit	Deutsche Bank AG
Clean Harbors Technology	Kimball	RCRA Closure	07/31/20	$ 35,953,983	$ 35,953,983	Insurance Policy	Great American Insurance Co.
Douglas County Landfill	Omaha	RCRA Cor Act	08/20/18	$ 2,094,079	$ 2,094,079	Financial Test	Douglas County
Eaton Corporation	Omaha	RCRA PC	06/08/09	$ 4,463,158	$ 4,463,158	Letter of Credit	JP Morgan/Chase Bank
Safety Kleen	Grand Island	RCRA Closure	07/31/20	$ 162,999	$ 162,999	Insurance Policy	Great American Insurance Co.
Safety Kleen	Omaha	RCRA Closure	07/31/20	$ 431,860	$ 431,860	Insurance Policy	Great American Insurance Co.
Tenneco Automotive Inc.	Cozad	RCRA PC	07/22/15	$ 53,366	$ 53,366	Letter of Credit	Canadian Imperial Bank
Tenneco Automotive Inc.	Cozad	RCRA Cor Act	12/20/21	$ 5,463,381	$ 5,463,381	Letter of Credit	Canadian Imperial Bank
Van Diest Supply Liquid Plant	McCook	RCRA PC	02/16/06	$ 1,783,291	$ 1,783,291	Letter of Credit	1st State Bank Webster Cty IA

Underground Injection Control (UIC)							
Crow Butte Resources, Inc.	Crawford	UIC		$ 56,121,073	$ 56,121,073	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
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
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.
Pete Langer	Scottsbluff	Waste Tire	02/11/22	$ 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	Sarcoxie, 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
RNS Metals, LLC	Elgin	Waste Tire	10/26/21	$ 50,000	$ 50,000	Letter of Credit	Cornerstone Bank
Shockley Trucking	Octavia	Waste Tire	02/24/16	$ 10,000	$ 10,000	Surety Bond	Universal Surety Co.
Southwick Liquid Waste Inc.	Hickman	Waste Tire	12/16/20	$ 20,000	$ 20,000	Surety Bond	Atlantic Specialty Ins. 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.