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 December 15, 2020, a hearing was held to decide the 2021 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 2021 were based on the actual applications received:

Category	2021 Eligible Requests	
Recycling	28.9%	$607,816
Public Education	68.0%	$1,431,568
Cleanup	3.1%	$65,986
Totals	100%	$2,105,370

The Department asked for the ability to adjust the percentages by up to 20% for the 2021 grant year, if warranted. The Environmental Quality Council granted 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 2020 and 2021 to clarify eligible reimbursements for personnel and other expenses.

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

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

Online Grant Application

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

Expected Service Life

The 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, 2020 - June 30, 2021**	
Fund Balance June 30, 2020	**$1,811,620**
Revenues:	
New Tire Fees	$2,540,002
Business Fees	$526,318
Waste Reduction & Recycling Fee	$516,389
Solid Waste Disposal Fee	$990,750
Interest, Grant Returns	$31,197
Miscellaneous	$24,969
Operating Transfers Out	$-180,000
Net Collections for Year	**$4,449,626**
Expenditures:	
Administration	$518,674
Grant Funds Expended*	$3,739,177
Total Expenditures FY 2021	**$4,257,851**
Fund Balance June 30, 2021	**$2,003,395**

**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 2021, $4,602,170 was awarded for Waste Reduction and Recycling Incentive Grants to 91 projects. There were 20 grants awarded from the Business Fee category ($1,405,815), 11 were awarded from the Disposal Fee category ($1,661,286), and 60 were awarded from the funds prioritized for scrap tire projects ($1,535,069).

The following lists indicate the locations across Nebraska that received funds in the Business Fee, Disposal Fee and Tire Fee categories.

Business Fee

Personnel:

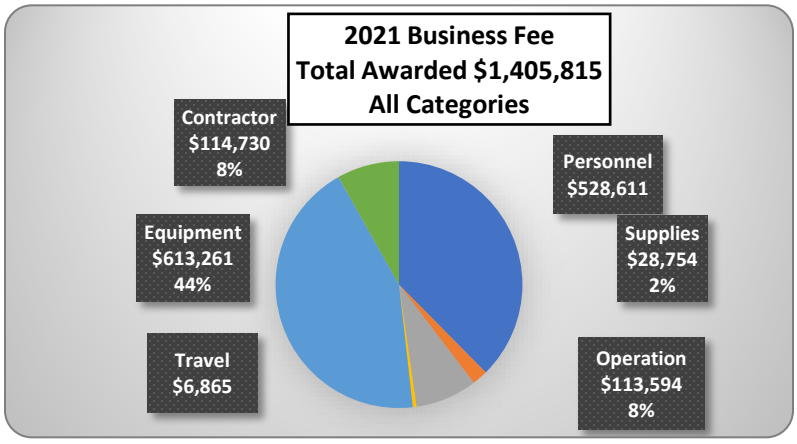
All or part of 33 staff

Contractual:

Pharma, Hazardous & E-Waste collection services, compost concrete Pad repairs and recycling services.

Equipment:

Computer and office equipment, forklifts, and Recycling Trailers



Photos provided by All Business Commercial Recycling LLC (ABC), which was awarded funding for a truck, a skid loader, and a flatbed trailer to provide recycling pickup services and transportation for mid-western Nebraska for up to 1 million lbs. of hard-to-recycle plastics.

Business Fee: $1,405,815 for 20 grants			
Alliance	Keep Alliance Beautiful	$99,781	Funds for the recycling center for Box Butte County and surrounding area, and waste and recycling education programs. Through June 2020, shipped 425,717 lbs. of recyclables; 71,000 lbs. higher than the same time in 2019.
Chadron	Keep Chadron Beautiful	$63,038	Funds to continue the paper and cardboard recycling program in Chadron. Last year 167,180 lbs. were collected and recycled.
Columbus	Keep Columbus Beautiful	$26,088	Funds to host a household hazardous waste (HHW) collection for residents of Platte County. Anticipate collecting 16,000 lbs. of HHW.
Fremont	Keep Fremont Beautiful, Inc	$30,414	Household hazardous waste collection event for over 36,500 residents of Dodge County.
Fremont	Horizon Biofuels Inc.	$23,618	50% of the cost to purchase 10 roll-off containers to expand collect sites and store 2,000 - 3,000 tons of wood waste to be recycled into heating fuel pellets and animal bedding products.
Grand Island	Grand Island Area Clean Community System	$84,716	Funds to operate the Household Hazardous Waste (HHW) facility for Hall, Hamilton, Howard, Merrick, and Adams counties. Since 2012, 850,000 lbs. of HHW accepted, with 203,301 lbs. reused.
Kimball	Keep Kimball Beautiful	$17,594	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	$28,509	Funds to hold two household hazardous waste collection events to serve 45,000 people in central Nebraska.
Lincoln	Keep Nebraska Beautiful	$93,592	Funds for the Materials Exchange Program (reused/recycled) 13 million lbs. of materials last year; saving landfill fees of $190,000 and purchasing costs of $245,000), 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). Also purchase a computer and printer.
Lincoln	Lincoln Public Schools	$48,012	Funds for the recycling and composting program in 58 school buildings to divert 1.8 million lbs. of organic material. Over 1.25 million lbs. of materials from 60 buildings are recycled each year. Work to expand the quantity and types of materials collected and to purchase additional recycling containers.
Lincoln	Habitat Lincoln ReStore	$27,833	Funds toward two forklifts; one to replace a worn-out forklift at an existing store, and a second for the new store to open in 2022. Current store has diverted > 1,000 tons of material from the landfill; the new store estimates to divert 1,300 tons in the first year.
Lincoln	Joslyn Institute for Sustainable Communities	$80,828	Funds to plan the opening of the Lincoln/Lancaster County LNK Conservation Center in 2022. Will partner with the City of Lincoln, NE Dept. of Corrections, LPS, UNL, and SECC. From 2005 to 2018, a former business diverted 3,000 tons of building materials from the landfill.
Louisville	Keep Cass County Beautiful	$2,034	Hold four electronic waste (e-waste) collection events for Cass County residents. 33,000 lbs. of e-waste were last collected in 2019.
North Platte	All Business & Commercial Recycling, LLC	$65,589	Funds for a truck and skid loader, and funds toward a flatbed trailer to provide recycling pickup services and transportation for mid-western Nebraska for up to 1 million lbs. of hard-to-recycle plastics (irrigation pipe, feed tubs, fertilizer tanks, corn/grain

			liners). Plan to collect up to 150,000 lbs./month from curbside recycling pickups.
Ogallala	Western Resources Group	$120,123	Funds to collect and process recyclables collected from central and western Nebraska. Between 2015-2019, 251,050 tons of materials were diverted from landfills.
Ogallala	Western Resources Group	$32,842	Funds to support the organization's expansion into small animal bedding made from recycled cardboard. Materials are received from 12 western Nebraska counties.
Ogallala	Keep Keith County Beautiful	$50,995	Continue litter reduction and recycling at Lake McConaughy and continue school and education program. Purchase three recycling trailers.
Omaha	Firstar Fiber, Inc.	$374,705	Funds for a shredder and granulator, and partial funding for a pellet mill to establish a plastic pre-processing facility. The facility will process 20,000 tons of hard-to-recycle plastic waste and agricultural films into higher-valued feedstock for a variety of end-market uses.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$51,016	Hold a pharmaceutical take back and household hazardous waste collection for Scottsbluff, Gering, and surrounding area.
Springfield	Soil Dynamics Composting Farm, Inc.	$84,488	Funds to help upgrade the composting system from windrow to a turned aerated pile system. Funds toward a concrete pad to house the below-grade aeration piping system.

Disposal Fee

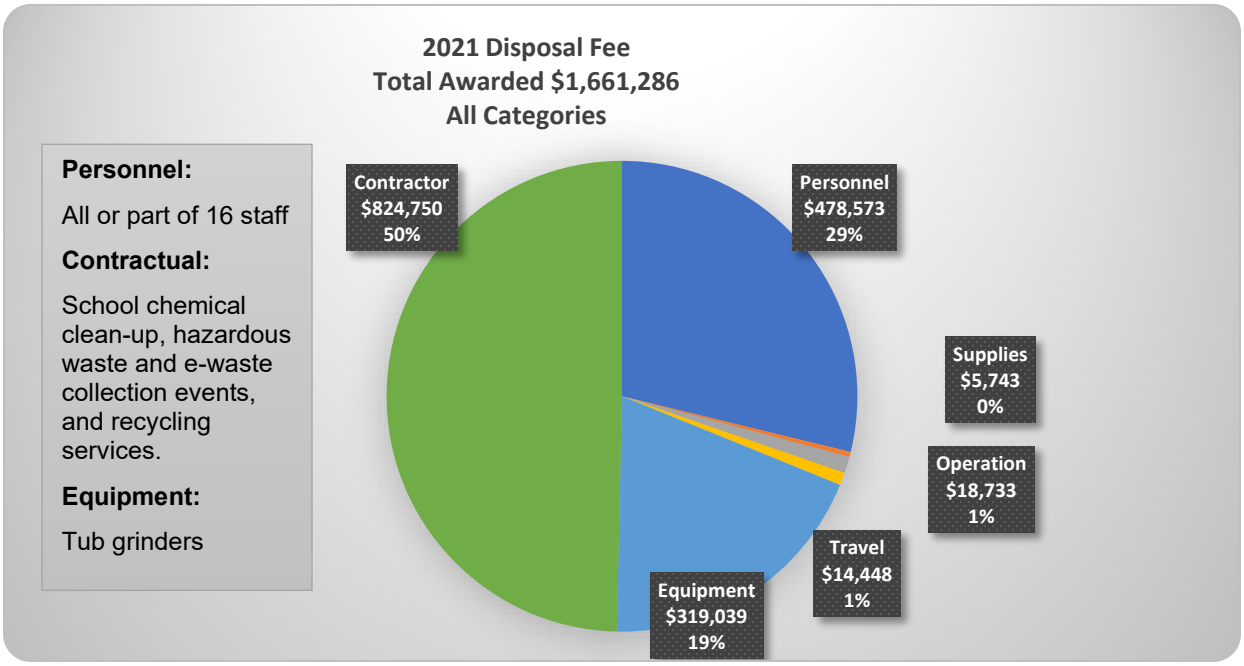


Photo provided by City of Lincoln-Solid Waste Management, which was awarded funding for asphalt pavement repairs for their existing composting pad.

Disposal Fee: $1,661,286 for 11 grants			
Bennington	City of Bennington	$161,488	Funds toward a horizontal grinder to process tree debris into mulch and eliminate hauling to landfills. Will process trees with emerald ash borer (city has 300 ash trees on city property), plus ongoing tree maintenance and storm debris management.
Crofton	City of Crofton	$1,999	Funds to help defray the cost of transporting recyclables collected in Crofton.
Gering	City of Gering	$147,864	Funds toward a tub grinder to process tree and wood debris into mulch for Scotts Bluff County. Mulch will be available to city, homeowners, and farmers in the county. City has 3,500 cy stockpiled wood waste from two winter storms.
Lincoln	Lincoln and Lancaster County Health Department	$195,425	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. Plans include evaluating the building of a re-use center for household hazardous waste that may be open for public access.
Lincoln	University of Nebraska-Lincoln Board of Regents	$64,629	Program for UNL engineering students to provide technical onsite waste/volume reduction and recycling assistance for Nebraska manufacturing businesses during the summer.
Lincoln	City of Lincoln-Solid Waste Management	$355,386	Electrical work and compost pad repairs to allow the use of a statis aeration system to reach organic waste diversion goals in five to six years at the Bluff Road composting facility. About 20,000 cubic yards of finished compost will be produced annually.
McCook	Red Willow County	$351,514	Funds to provide residents of central and southwest Nebraska with safe, reliable means to recycle or dispose of household hazardous waste (HHW). Expect to collect 200,000 lbs. of HHW in 2021.
Norfolk	Norfolk Catholic High School	$1,209	50% of the cost to properly dispose of potentially hazardous and unwanted chemicals in the high school science laboratory.

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	$5,461	Expenses for a household battery recycling program for Wayne and nearby residents at the Wayne Public Library. Anticipate collecting 990 lbs. of batteries in 2021.
Wayne	City of Wayne	$10,896	Hold an electronic waste (e-waste) event for residents of Wayne and surrounding towns. Anticipate collecting 30,000 lbs. of e-waste.

Tire Fee

The scrap tire grants are funded by the $1 per tire fee on retail sales of new tires. In 2021, $1,535,069 was awarded to 60 projects.

- Scrap tire cleanup events: 13 grants, $535,010 awarded
- Completed projects for the partial reimbursement of the purchase of tire-derived products and/or crumb rubber: 34 grants, $542,180 awarded
- Proposed projects for the partial reimbursement for the purchase of tire-derived products and/or crumb rubber: 13 grants, $457,879

Scrap Tire Cleanup Events

Funding is provided to political subdivisions for tire collection site cleanups. Thirteen scrap tire cleanup grants were awarded in 2021 to political subdivisions. The grants totaled $535,010 and proposed to clean up 3,925 tons of scrap tires.

Photos provided by Middle Niobrara NRD, which was awarded for a proposed 300-ton scrap tire cleanup for Cherry County.

Scrap Tire Cleanup Events: 13 grants, $535,010 awarded			
Alliance	City of Alliance	$72,460	Proposed 500-ton scrap tire cleanup for Box Butte, Sheridan, Morrill, Grant, Dawes, and Sioux counties.
Ashland	City of Ashland	$9,740	Proposed 75-ton scrap tire cleanup in Ashland for the town and one-mile surrounding area.
Fairbury	Jefferson County Highway Department	$17,454	Proposed 150-ton scrap tire cleanup for Jefferson County.
Falls City	Richardson County	$37,699	Proposed 350-ton scrap tire cleanup in two locations for Richardson County.
Hastings	City of Hastings - Solid Waste Department	$43,178	Proposed 350-ton scrap tire cleanup for Adams County.
Mullen	Village of Mullen	$9,700	Proposed 50-ton scrap tire cleanup for Hooker County and southern Cherry County.
Norfolk	City of Norfolk	$63,610	Proposed 500-ton scrap tire cleanup for Madison County, along with Stanton and Pierce County residents with a Norfolk zip code.
Scottsbluff	City of Scottsbluff	$70,352	Proposed 500-ton scrap tire event for Scotts Bluff County.
Sidney	City of Sidney	$69,479	Proposed 500-ton scrap tire cleanup for Cheyenne, Morrill, and Deuel counties.
Trenton	Village of Trenton	$14,904	Proposed 100-ton scrap tire cleanup for Hitchcock County.
Valentine	Middle Niobrara NRD	$53,964	Proposed 300-ton scrap tire cleanup for Cherry County.
Wallace	Village of Wallace	$21,706	Proposed 150-ton scrap tire cleanup in Wallace for Lincoln County.
Wayne	Wayne County Roads Department	$50,764	Proposed 400-ton scrap tire cleanup in Wayne for Wayne County.

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

In 2021, $1,000,059 was awarded to 47 projects to partially reimburse the purchase of tire-derived products and/or crumb rubber.

Photo provided by the Elkhorn Legion Baseball Post 211, which was awarded for partial reimbursement of artificial turf made with 68,000 lbs. of crumb rubber for their Jerry Frerichs Legion Field. Due to the impact of COVID-19, the Frerichs Legion Field turf project got postponed to the Summer of 2021.

50% reimbursement of 13,650 lbs. of rubber playground mulch.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber- Completed Projects: 34 projects, $542,180 awarded			
Adams	Gold Crest Retirement Center	$4,162	50% reimbursement of 29,250 lbs. of rubber playground mulch.
Atkinson	West Holt Public Schools	$15,837	25% reimbursement of a rubber bond playground surface made from 60,900 lbs. of crumb rubber.
Bertrand	Bertrand Community School	$13,367	25% reimbursement of rubber playground mats made from 41,600 lbs. of crumb rubber.
Blair	City of Blair	$18,700	25% reimbursement of two poured-in-place playground surfaces using 41,500 lbs. of crumb rubber.
Blair	Blair Community Schools	$33,137	50% reimbursement of 290,000 lbs. of rubber playground mulch.
Blue Hill	Blue Hill Community Schools	$8,265	50% reimbursement of 11,700 lbs. of rubber playground mulch and 25% reimbursement of a poured-in-place playground surface made from 13,450 lbs. of crumb rubber.
Broken Bow	Custer County Foundation	$2,775	50% reimbursement of 19,500 lbs. of rubber playground mulch.
Central City	Central City Public Schools	$7,500	50% reimbursement of 50,000 lbs. of crumb rubber used to top dress the athletic playing field.
Columbus	Jared Lesuer	$878	50% reimbursement of 5,850 lbs. of rubber playground mulch.
Fremont	Midland University/Dodge County Head Start	$10,417	25% reimbursement of two poured-in-place playground surfaces and one bonded rubber surface using 14,100 lbs. of crumb rubber.
Fullerton	Fullerton Public Schools	$832	50% reimbursement of 5,580 lbs. of rubber playground mulch.

Gibbon	Gibbon Public Schools	$2,240	50% reimbursement of 15,600 lbs. of rubber playground mulch.
Harrisburg	Banner County School	$20,608	50% reimbursement of 156,000 lbs. of rubber playground mulch.
Homer	Homer Community School	$29,375	25% reimbursement of an athletic track surface using 50,000 lbs. of crumb rubber.
Kearney	Fort Kearny Preservation, Restoration, & Development	$998	25% reimbursement of nine 6-ft. park benches and eight 3-ft. trail benches.
Lincoln	4Views Academy	$3,733	25% reimbursement of a bonded rubber playground surface made from 6,350 lbs. of crumb rubber.
Loomis	Loomis Public Schools	$1,700	50% reimbursement of 15,600 lbs. of rubber playground mulch.
Loup City	Central Nebraska Community Action Partnership	$1,126	50% reimbursement of 7,800 lbs. of rubber playground mulch and one swing mat.
Merna	Anselmo-Merna Public Schools	$20,220	25% reimbursement of an athletic running track surface made from 58,000 lbs. of crumb rubber.
Ogallala	Ogallala Housing Authority	$637	50% reimbursement of 5,850 lbs. of rubber playground mulch.
Omaha	Millard North High School	$68,174	25% reimbursement of an artificial turf playing field using 334,000 lbs. of crumb rubber.
Omaha	Skutt Catholic High School	$27,214	25% reimbursement of athletic track made from 84,000 lbs. of crumb rubber.
O'Neill	O'Neill Public Schools	$25,365	25% reimbursement of an athletic running track surface made from 82,000 lbs. of crumb rubber.
Osmond	City of Osmond	$10,757	25% reimbursement of two poured-in-place playground surfaces made from 47,800 lbs. of crumb rubber.
Palmyra	Otoe County School District 66-0501	$95,575	25% reimbursement of an artificial turf soccer/football field made from 376,000 lbs. of crumb rubber.
Palmyra	Otoe County School District 66-0501	$26,136	25% reimbursement of an athletic running track surface made from 88,000 lbs. of crumb rubber.
Papillion	Papillion LaVista Community Schools	$30,391	25% reimbursement of athletic track made from 94,000 lbs. of crumb rubber.
Potter	Village of Potter	$1,650	50% reimbursement of 13,650 lbs. of rubber playground mulch.
Red Cloud	Red Cloud Community Schools	$1,387	50% reimbursement of 9,750 lbs. of rubber playground mulch.
Stanton	Stanton Community Schools	$29,456	25% reimbursement of an athletic running track surface made from 93,000 lbs. of crumb rubber.
Steinauer	Steinauer, Village of	$8,000	50% reimbursement of 66,000 lbs. of rubber playground mulch.
Waverly	City of Waverly	$7,375	50% reimbursement of 60,000 lbs. of rubber playground mulch.
Wilber	Gingerbread House	$321	50% reimbursement of 1,950 lbs. of rubber playground mulch.
York	St. Joseph Catholic School	$13,872	50% reimbursement of 95,500 lbs. of rubber playground mulch.

Partial Reimbursement for the Purchase of Tire-Derived Products and/or Crumb Rubber- Proposed Projects: 13 projects, $457,879 awarded			
Ashland	City of Ashland	$3,505	Proposed 50% reimbursement of 31,200 lbs. of rubber playground mulch.
Benedict	Village of Benedict	$7,525	Proposed 50% reimbursement of 56,550 lbs. of rubber playground mulch.
Kenesaw	Kenesaw Public Schools	$8,840	Proposed purchase of 52,000 lbs. of rubber playground mulch.
Lincoln	Nebraska Game & Parks Commission	$12,465	Proposed 25% reimbursement of 77 picnic tables made from 520 passenger tire equivalents for nine state park and recreation areas.
Madison	Madison Public Schools	$2,925	Proposed 50% reimbursement of 19,500 lbs. of rubber playground mulch.
Minden	Minden High School	$25,026	Proposed 25% reimbursement of an athletic track surface using 94,000 lbs. of crumb rubber.
Morrill	Village of Morrill	$5,827	Proposed 50% reimbursement of 44,000 lbs. of rubber mulch.
Niobrara	Santee Community Schools	$107,192	Proposed 25% reimbursement of an artificial turf and athletic track.
Omaha	Northstar Foundation	$89,600	Proposed 25% reimbursement of an 86,000 square foot artificial turf soccer/lacrosse field.
Omaha	Nebraska Philanthropic Trust	$121,312	Proposed 25% reimbursement of an artificial turf baseball field at the University of Nebraska-Omaha, using 310,000 lbs. of crumb rubber.
Omaha	Nebraska Philanthropic Trust	$59,777	Proposed 25% reimbursement of an artificial turf softball field at the University of Nebraska Omaha, using 112,000 lbs. of crumb rubber.
Tecumseh	Nemaha NRD	$11,960	Proposed 50% reimbursement of 94,000 lbs. of rubber mulch for two lake playgrounds.
Wilcox	Wilcox-Hildreth Public Schools	$1,925	Proposed 50% reimbursement of 13,650 lbs. of rubber mulch for the preschool playground.

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 second class cities, villages, and counties with a population of 5,000 or less are eligible to apply for funding. The buildings selected must not be on, or eligible to be on, the National Register of Historic Places.

Photo provided by the City of Oshkosh. 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 FY2021, the program provided 23 grants, totaling $48,579. Funds were provided to:

Illegal Dumpsite Cleanup Awards		
City of Lincoln - 7	City of Omaha – 4	Seward County - 6
Lincoln/Lancaster County - 4	Adams County - 2	

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 FY2021, the program provided $101,365 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	$ 1,741	Butler County	$ 5,909	City of David City	$ 238
City of North Platte	$ 3,819	City of Lincoln	$ 34,183	Saline County	$ 3,049
City of Omaha	$ 49,268	South Sioux City	$ 955	Jefferson County	$ 660
Seward County	$ 1,428	City of Grant	$ 115		

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, 2020 - June 30, 2021

Fund Balance June 30, 2020	**$1,804,263**
Revenues:	
Litter Taxes Collected	$2,538,860
Interest, Grant Returns	$37,806
Miscellaneous Adjustment	$0
Operating Transfer Out	$-90,000
Net Collections for FY2021	**$2,486,666**
Expenditures:	
NDEE Administration	$364,108
Grant Funds Expended*	$1,423,269
Total Expenditures FY2021	**$1,787,377**
Fund Balance June 30, 2021	**$2,480,671**

**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

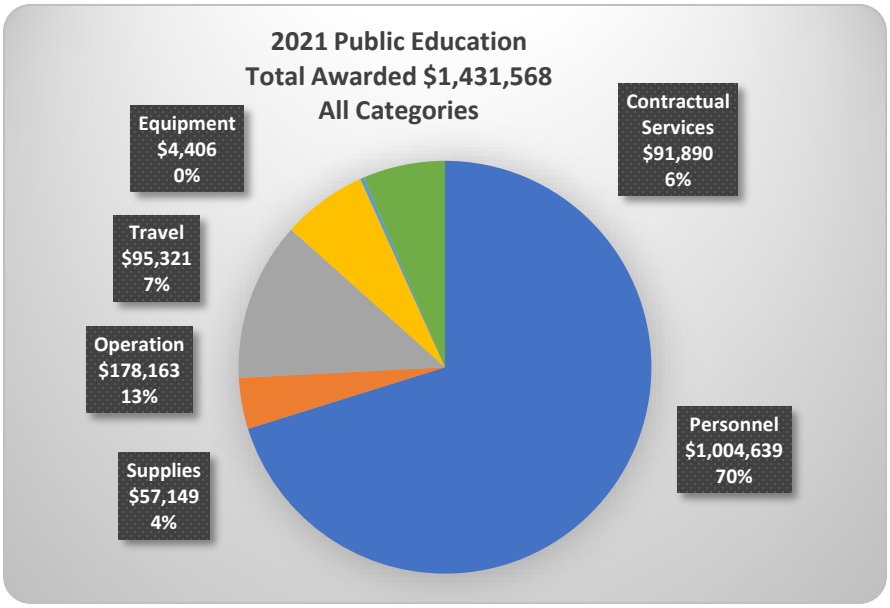
In 2021, $2,084,200 was awarded to 53 Litter Reduction and Recycling Grant recipients. Grant funding is awarded to several types of programs, including non-profit groups, public and private entities, and over 20 Keep America Beautiful affiliates. Many of these programs utilize the Litter Reduction and 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	(69%)	25 grants	$ 1,431,568
Cleanup	(3%)	10 grants	$ 65,986
Recycling	(28%)	18 grants	$ 586,646
Totals	**100%**	**53 grants**	**$ 2,084,200**

Public Education

In 2021, 25 grants totaling $1,431,568 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 North Platte & Lincoln Co Beautiful (KNPLCB), which was awarded a public education grant to encourage waste reduction and a litter-free environment. KNPLCB works with schools, businesses, and organizations to educate on the benefit of buying recycled content products. KNPLCB offers after-school and summer programs with various activities to encourage and inspires students to reuse, reduce, and recycle.

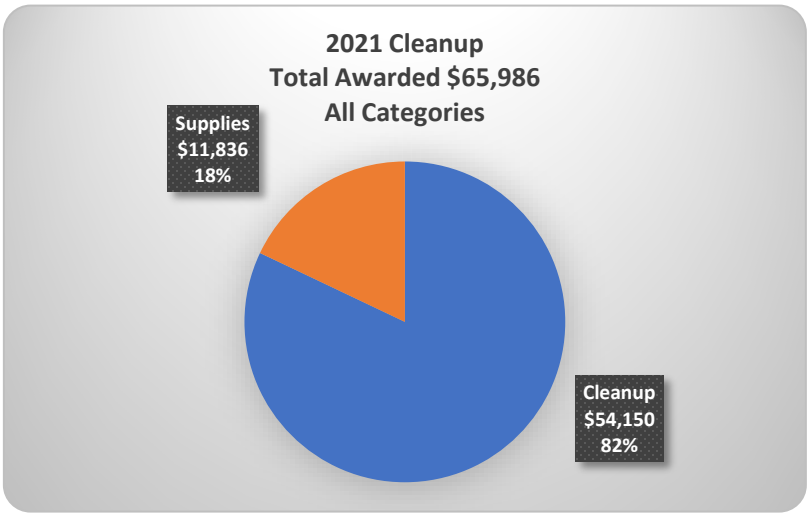
Public Education Awards: $1,431,568 for 25 grants			
Alliance	Keep Alliance Beautiful	$64,329	Public education for waste reduction and litter prevention to Box Butte County students and residents. Teach practical habits to reduce, reuse, and recycle.
Beatrice	Keep Beatrice Beautiful	$39,288	Public education to promote litter reduction and recycling. Partner with the City of Beatrice and Gage County. Supply litter and recycling containers for Litter-Free events.
Burwell	Loup Basin RC&D Council/Keep Loup Basin Beautiful	$47,767	Public education for litter prevention, waste reduction, and recycling in 13 counties in central and north central Nebraska.
Chadron	Keep Chadron Beautiful	$71,438	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	$33,482	Public education for schools, businesses, and organizations to increase recycling and raise awareness for litter prevention in Platte County.
Fremont	Keep Fremont Beautiful, Inc.	$70,785	Public education to create awareness regarding environmental issues and increase community participation in litter reduction, recycling, and the proper disposal of waste in Dodge County.

Grand Island	Grand Island Area Clean Community System	$40,374	Public education on litter, recycling, and reuse, and proper disposal of household chemicals through presentations to adults and youth in Hall County. Work with Grand Island schools on a new food waste composting program.
Kimball	Keep Kimball Beautiful	$24,532	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	$37,133	Public education at Lexington Public Schools through after-school and summer programs on recycling and waste reduction. Also provide educational waste reduction programs for the elderly population and entire community.
Lincoln	Lincoln and Lancaster County Health Department	$91,289	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	$105,948	Operating expenses for the Litter Hotline for Douglas, Lancaster, Gage, Dodge, Cass, and Colfax counties to increase community awareness of Litter. Educate K-12 students about the litter free school zone program. Help develop after-school curriculum focusing on food waste and resource management.
Lincoln	Nebraska Recycling Council	$74,638	Public education to support Nebraska community and regional recycling systems and service providers, develop Nebraska's composting industry, provide business technical assistance, and help Agriculture producers recycle ag bags.
Lincoln	Nebraska Recycling Council	$51,152	Public education on recycling and materials management, instructional publications, waste assessments and audits, municipal and regional recycling system design assistance. Develop the Hub and Spoke recycling project for 34 counties in Western Nebraska.
Lincoln	City of Lincoln-Solid Waste Management Division	$91,890	Public education for a comprehensive K-12 problem/solving curriculum focused on the solid waste industry, "Bin Banter" live-stream webinar on recycling, and create a new logo and marketing related to composting.
Lincoln	University of Nebraska-Lincoln Board of Regents	$7,800	Due to pandemics and disease epidemic increases, UNL will research the rate and volumes of personal protection equipment waste generation, treatment, and disposal to plan for safe and sustainable environmental management practices.
Lincoln	University of Nebraska-Lincoln	$4,985	Public education to engage the UNL community. Develop a waste management and recycling guide to be promoted via the web and social media, as well as in print form for campus. Plan at least 10 on-campus events with themes of sustainability and responsible waste management through recycling.
Louisville	Keep Cass County Beautiful	$65,013	Public education to provide resources for the development of pro-environmental behaviors that result in litter prevention and waste reduction in Cass County. Provide bins and cigarette receptacles for local events.
Nebraska City	Keep Nebraska City Beautiful	$36,832	Public education to increase recycling, promote litter reduction, and food waste reduction through after-school programs and community presentations in Otoe County.

Norfolk	Keep Norfolk Beautiful	$29,276	Public education to teach youth about the importance of litter prevention, proper recycling practices, and instill proper waste handling habits in Madison and parts of surrounding counties.
North Platte	Keep North Platte and Lincoln County Beautiful	$87,102	Public education to encourage waste reduction and a litter-free environment. Work with schools, businesses, and organizations to educate on the benefit of buying recycled content products. Provide recycling containers for events.
Ogallala	Keep Keith County Beautiful, Inc.	$134,720	Public education on litter reduction through source reduction, recycling right, food waste elimination, and sustainable waste management.
Omaha	Keep Omaha Beautiful	$151,715	Public education workshops and presentations at community events and virtually on waste reduction, recycling, and litter prevention. Participate in schools as allowed. Create online recycling guide.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$38,983	Public education on litter prevention, waste reduction, and recycling in classrooms and at public events. Educate residents on proper disposal of household hazardous waste.
Sidney	Keep Sidney Beautiful	$24,857	Public education on recycling and waste reduction to local schools, youth groups, and the community. Boost online and virtual education opportunities, and work with organizations to bring better recycling options to Cheyenne County.
Wayne	City of Wayne	$6,240	Public education campaign on Zero Waste Living in the community. Promote waste reduction through flyers, newspapers, radio, online, and social media.

Cleanup

In 2021, 10 grants totaling $65,986 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 996 road-side miles and 435 acres of public areas.



Photos provided by Keep Sidney Beautiful, which was awarded funding to clean up a proposed 18 miles in Cheyenne County. As of September 1, 2021, Keep Sidney Beautiful volunteers have cleaned up over 3,000 lbs. of litter.

Cleanup Awards: $65,986 for 10 grants			
Beatrice	Keep Beatrice Beautiful	$5,975	Clean up 100 roadside miles and 60 public acres in Gage County.
Chadron	Keep Chadron Beautiful	$5,135	Clean up 100 miles in Dawes County.
Grand Island	Grand Island Area Clean Community System	$5,800	Clean up 100 roadside miles and 50 public acres in Hall, Merrick, Hamilton, Howard, and Adams counties.
Lincoln	Lincoln and Lancaster County Health Department	$15,000	Clean up 240 roadside miles and 300 public acres in Lancaster County.
North Platte	Keep North Platte and Lincoln County Beautiful	$16,314	Clean up 320 roadside miles in Lincoln County.
Ogallala	Keep Keith County Beautiful, Inc.	$3,250	Clean up 60 roadside miles and 25 public acres in Keith County.
Omaha	Keep Omaha Beautiful	$7,840	Supplies to conduct over 500 cleanups in Omaha, including Adopt-a-Park/Spot programs, public spaces, and trail cleanups.
Scottsbluff	Keep Scottsbluff Gering Beautiful	$2,995	Clean up 48 roadside miles in Scotts Bluff County.
Sidney	Keep Sidney Beautiful	$3,135	Clean up 18 miles in Cheyenne County.
Steinauer	Steinauer Community Club	$542	Clean up 10 roadside miles leading into Steinauer.

Recycling

In 2021, 18 grants totaling $586,646, 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.

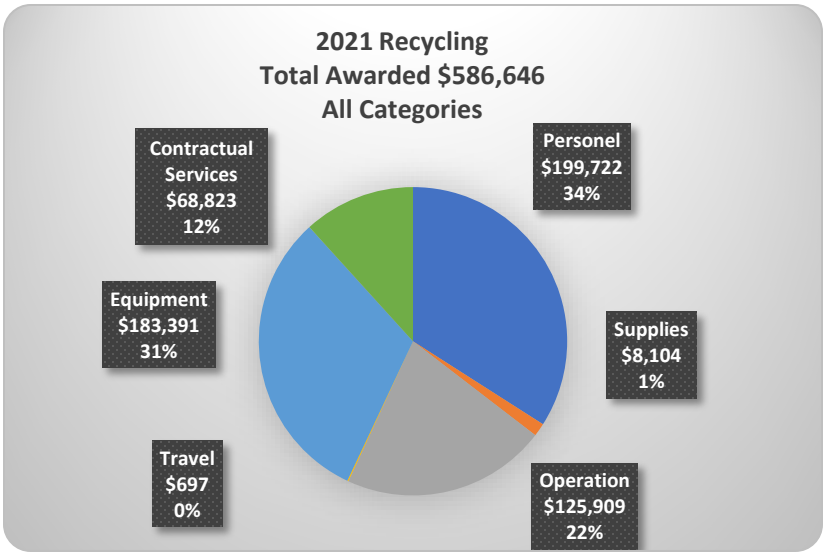


Photo provided by City of Madison, which was awarded for 50% of the cost of a brush chipper and skid loader to process tree waste and vegetation. As of September 1, 2021, the City has produced 22 tons of mulch to be shared with the community.

Recycling Awards: $586,646 for 18 grants			
Alliance	Keep Alliance Beautiful	$46,131	Funds to operate the recycling center in Alliance serving Box Butte County, and partially fund a vertical baler.
Columbus	Platte County Highway Department	$49,413	50% of the cost of a brush chipper and skid loader to process vegetation and tree waste along Platte County roads. Resulting mulch will be available for free at five locations in Platte County.
Columbus	Keep Columbus Beautiful	$20,420	Provide services to move recyclable materials collected in Columbus to the recycling center in Schuyler.
Crofton	Lewis and Clark State Recreation Area/Nebraska Game and Parks Commission	$1,643	Funds for recycling containers to distribute around the Lewis and Clark State Recreation Area to be used by park staff and visitors.
Kimball	Keep Kimball Beautiful	$73,216	Funds to operate the Kimball Recycling Center serving Kimball County. Over the past two years 655,000 lbs. of recyclable materials have been diverted from the landfill.
Lexington	Keep Lexington Beautiful	$12,148	Conduct a paper shredding day in Lexington, service five recycling trailers, and support cleanups in the area.
Lyons	City of Lyons	$17,172	Funds to operate the recycling center in Lyons, serving Burt and parts of Washington, Thurston, and Cuming counties.
Madison	City of Madison	$20,000	50% of the cost of a brush chipper to process tree and wood waste from the City of Madison into mulch. Mulch will be used in city parks and offered to the public at a low cost.
Morrill	Village of Morrill	$23,438	50% of the cost to crush 6,000 tons of concrete and 1,100 tons of asphalt to produce aggregate to use on village roads.
Newcastle	Village of Newcastle	$10,828	Funds toward a recycling trailer to haul recyclables collected from Newcastle and the surrounding area to market.
North Platte	Keep North Platte and Lincoln County Beautiful	$33,657	Promote and help to increase recycling, including electronic waste and non-contaminated yard waste in Lincoln County through drop-off, school, and business recycling programs.
Omaha	Papio Missouri River Natural Resources District	$24,300	Funds to conduct four electronic waste (e-waste) events in Washington, Burt, Thurston, and Dakota counties. Anticipate collecting 60,000 lbs. of e-waste from these events.
Omaha	City of Omaha (Environmental Quality Control)	$56,000	Purchase trailer with a solar-powered surveillance camera to monitor and prevent illegal dumping at Omaha's recycling drop-off sites.
Omaha	Duet-Care	$121,157	Funds toward a horizontal baler and operating expenses for the recycling center, providing employment for 37 individuals with development and intellectual disabilities. Over 200 businesses, churches, and organizations are served in Douglas and Sarpy counties.
Schuyler	Keep Schuyler Beautiful	$43,719	Operating expenses for the Colfax County Recycling Facility, accepting materials from Colfax, plus parts of Butler, Platte, and Dodge counties.
South Sioux City	City of South Sioux City	$16,007	50% of the cost to purchase 800 64-gallon curbside recycling bins for South Sioux City homes.

Thedford	Upper Loup Natural Resources District	$14,000	Operating expenses for the Upper Loup NRD recycling program. Materials accepted from Grant, Hooker, Thomas, Logan, Blaine, and portions of McPherson, Cherry, and Brown counties.
Verdigre	Village of Verdigre	$3,397	Funding to aid the Village's recycling shed, serving the western half of Knox County.

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 2021:

- 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)
2012	$852,500	$620,003	$81,675	$1,554,178	$2,044,451*
2013	$821,092	$751,559	$109,937	$1,682,588	$2,499,447*
2014	$1,052,402	$887,141	$67,164	$2,006,707	$3,083,431*
2015	$1,176,580	$821,346	$97,938	$2,095,864	$2,266,267*
2016	$892,975	$819,597	$108,483	$1,821,055	$2,079,033*
2017	$1,326,206	$1,037,895	$126,986	$2,491,087	$2,644,088
2018	$603,867	$651,968	$50,569	$1,306,404	$3,571,584
2019	$423,523	$826,761	$49,716	$1,300,000	$2,746,775
2020	$325,938	$1,325,085	$89,153	$1,740,176	$1,827,643
2021	$586,646	$1,431,568	$65,986	$2,084,200	$2,105,370
			Total Amounts	**$18,082,259**	**$24,868,089***

**Estimate*

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

Grant Year	Awarded Deconstruction Grants	Awarded Landfill Disposal Rebate	Awarded Illegal Dumpsite
2012	$291,500	$42,468	$118,662
2013		$44,841	$108,674
2014		$49,792	$101,810
2015		$28,058	$94,859
2016		$162,536	$80,872
2017		$75,599	$100,892
2018		$40,433	$99,341
2019		$14,935	$91,630
2020	$186,662	$23,016	$102,061
2021		$101,365	$48,579
Total	**$478,162**	**$583,043**	**$947,380**

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

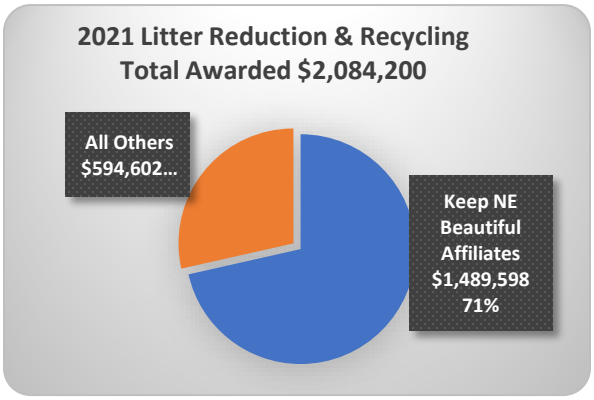
Amounts Awarded for Deconstruction, Illegal Dumpsite, and Landfill Disposal Rebates

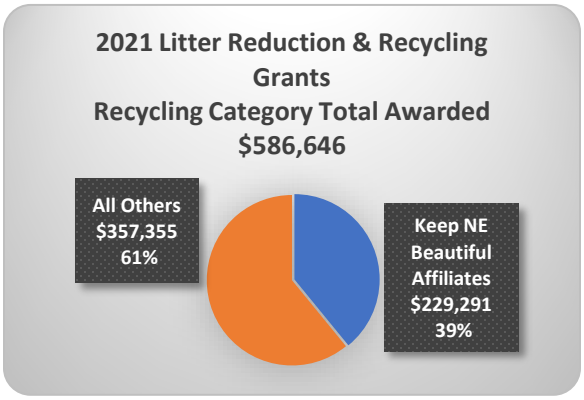
Grant Year	Awarded Disposal Fee	Awarded Business Fee	Total Awarded (Both WRR Categories)	Total Eligible Grant Funds Requested (Both WRR Categories)
2012	$916,461	$774,715	$1,691,176	$2,387,797*
2013	$816,990	$549,524	$1,366,514	$2,388,515*
2014	$1,012,371	$1,107,888	$2,120,259	$3,083,431*
2015	$1,435,558	$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
		Total Amounts	**$21,470,795**	**$31,321,650***

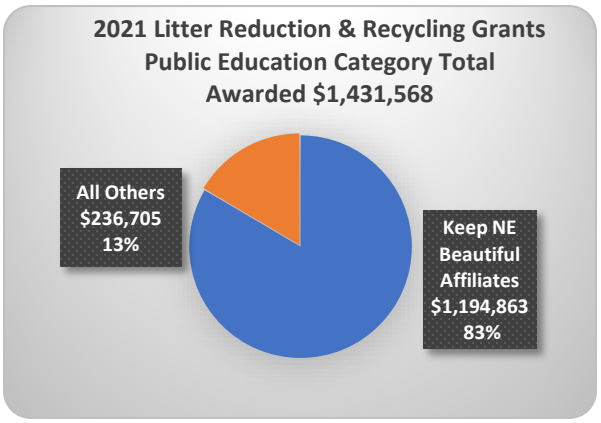
Keep America Beautiful Nebraska Affiliate Funding for 2021

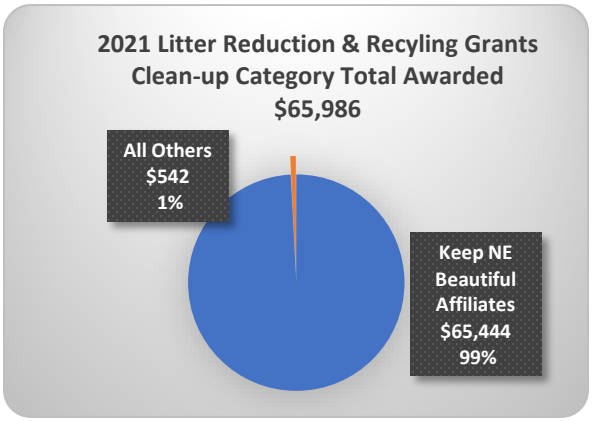
Keep America Beautiful (KAB) is a national non-profit public education organization. Keep Nebraska Beautiful is a statewide affiliate of KAB. There are 20 local KAB affiliate communities in Nebraska. Many of the KAB affiliates receive grant funding from the Litter Reduction and Recycling grant program 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.

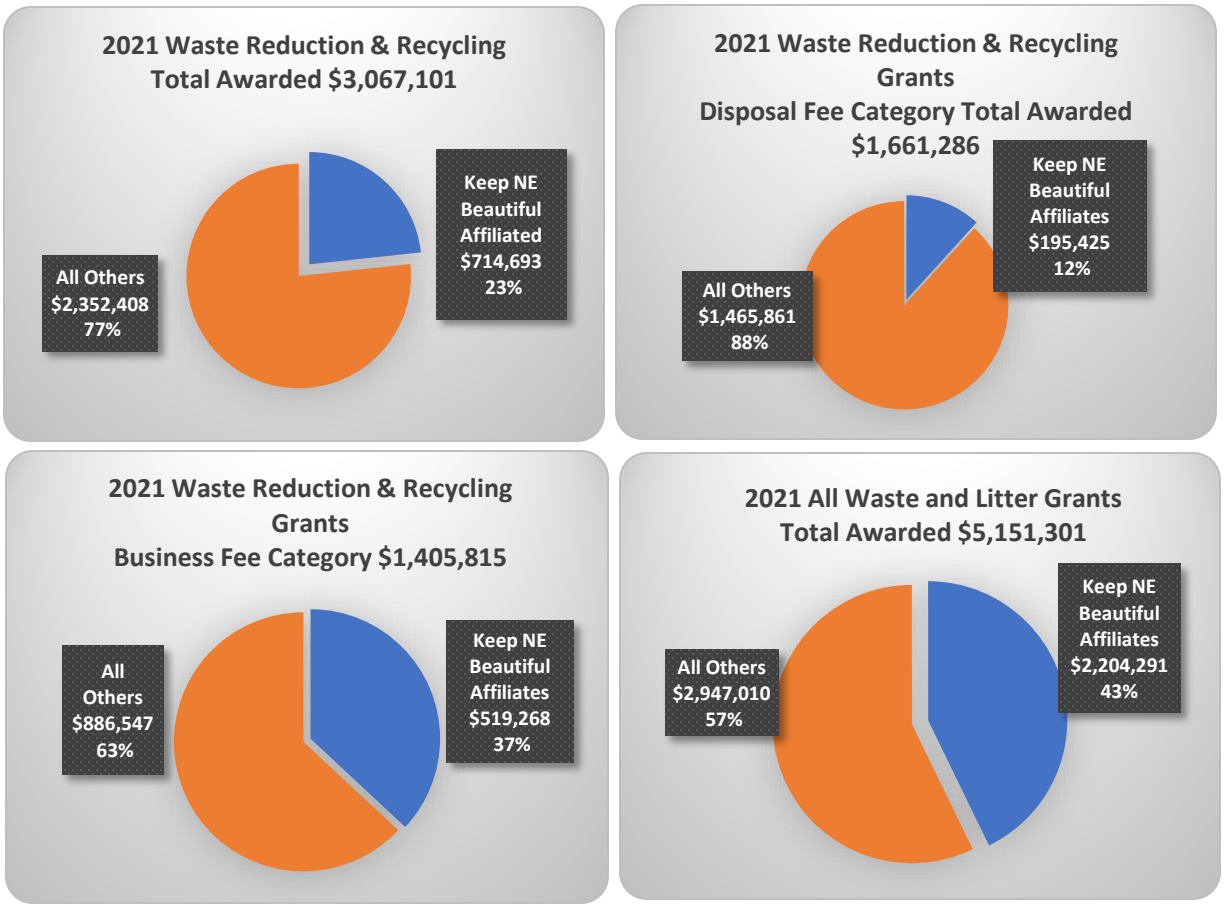
The Litter grant program also includes the cleanup category, which covers expenses to pick up litter along roadways and in public areas. Recycling is the third category under the Litter grant program and is like the Business Fee category, of the Waste Reduction and Recycling Incentive Grant Program. 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.





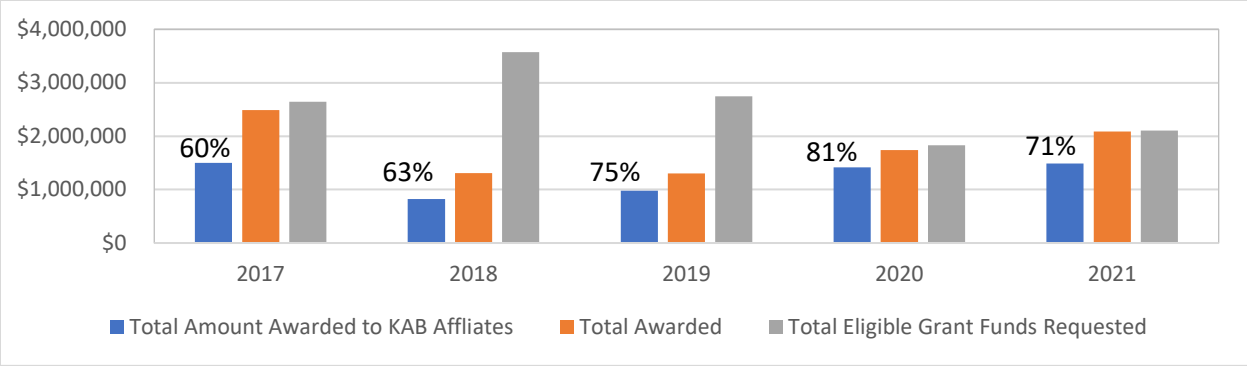






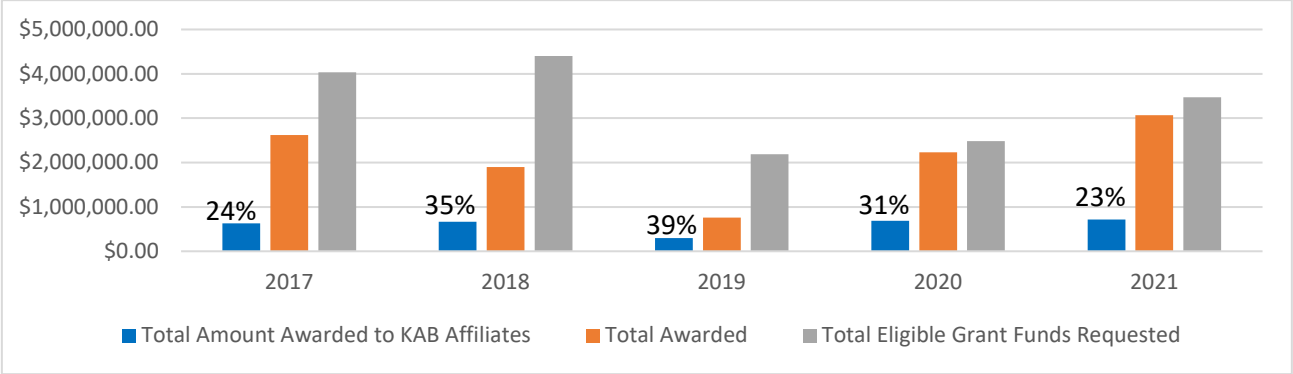
2017-2021 Awarded Litter Reduction and Recycling Grants to Keep America Beautiful (KAB) Nebraska Affiliates

Grant Year	Total Amount Awarded to KAB Affiliates	Percent Awarded to KAB Affiliates	Total Awarded	Total Eligible Grant Funds Requested
2017	$1,499,123	60%	$2,491,087	$2,644,088
2018	$823,506	63%	$1,306,370	$3,571,584
2019	$976,436	75%	$1,300,000	$2,746,775
2020	$1,415,978	81%	$1,740,176	$1,827,643
2021	$1,489,598	71%	$2,084,200	$2,105,370



2017-2021 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
2017	$627,484	24%	$2,623,217	$4,036,801
2018	$668,415	35%	$1,900,000	$4,402,481
2019	$299,956	39%	$761,545	$2,188,344
2020	$689,675	31%	$2,228,367	$2,481,692
2021	$714,693	23%	$3,067,101	$3,469,624



Nebraska Voluntary Cleanup Program

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

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

To date, 68 sites have entered the Voluntary Cleanup Program. Currently, 25 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 former Goodyear Lease Location #7522 in Lincoln, the AltEn, LLC facility in Mead, and three properties in Omaha that include the former AAA Welding facility, the former Max I Walker Cleaners at Baker Square, and the Tiny Houses project. Investigation activities are ongoing at the J.A. Woollam, Co. in Lincoln, the International Sensor Systems, Inc. site in Aurora, and the former Bladen, Bradshaw, Eustis and York USDA grain bin sites. Cleanup activities are ongoing at the former Farmland Industries UAN Terminal in Doniphan, the Archer Daniels Midland facility in Lincoln, the Dettmer Lease property in Auburn, Hoover Manufacturing in Beatrice, the former Nebraska Solvents Company site in Grand Island, the Vishay Dale Electronics site in Norfolk, the Appleton Electric site in Columbus, West Haymarket Block 4 in Lincoln, the Elster American Meter Company in Nebraska City, the Omaha Steel Castings Parish School, and the former Murdock and Utica USDA grain bin sites.

This former manufactuirng facility located at 1528 N 16th Street in Omaha will be the future location of a Tiny Houses project by Arch Icon Development and the Sienna Francis House. The City of Omaha enrolled the site in the VCP to address heavy metals contamiantion in the soil. When complete, approximately 50 tiny houses – each about the size of a hotel room – will be constructed onsite to provide a housing service for the homeless.

Post-remediation monitoring is ongoing at Case New Holland in Grand Island and the Lewis and Clark Landing/Heartland of America Park Redevelopment Project. A No Further Action letter was issued to the Omaha Steel Castings – Saddle Creek Redevelopment project and an Acknowledgement Letter for remedial work completed to date was issued for the Lynch Park Former Manufactured Gas Plant (FMGP) site in Omaha. The application fee to participate in the program is $2,000, and the initial deposit to pay for state oversight costs is $3,000.

Voluntary Cleanup Program Sites and Status

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

Voluntary Cleanup Program Sites and Status			
Site	**Location**	**Date started**	**Progress**
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
Dettmer Lease Property	Auburn	5/19/11	Active
Hoover Manufacturing	Beatrice	5/27/11	Active
Blair FMGP	Blair	6/28/11	Completed 4/4/16
Plattsmouth FMGP	Plattsmouth	6/28/11	Completed 4/4/16
Former USDA CCC Grain Bin Sites	Multiple Sites (Bladen, Bradshaw, Eustis, Murdock, Utica, York)	3/16/12	Active – 6 sites
Vishay Dale Electronics	Norfolk	4/2/12	Active
Lewis and Clark Landing	Omaha	4/20/12	Completed 12/29/16
West Haymarket Redevelopment Site South	Lincoln	6/11/12	Completed 9/18/18
Quality Analytical Services	Omaha	8/2/12	Withdrawn 6/3/14
Nebraska Machine Products	Omaha	10/1/12	Completed 3/26/18
Lynch Park FMGP	Omaha	11/20/12	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	Omaha	4/26/16	Completed 8/24/20

Voluntary Cleanup Program Sites and Status			
Site	**Location**	**Date started**	**Progress**
Creek Redevelopment			
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
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 Project	Omaha	8/13/2019	Active
Elster American Meter	Nebraska City	9/19/2019	Active
Former AmFirst Bank Branch	McCook	11/07/2019	Completed 6/22/20
West Haymarket Block Four	Lincoln	2/4/2020	Active
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

Brownfields Assessments and Cleanups

A brownfield site is a vacant or under-used industrial or commercial property where expansion or redevelopment is complicated by unresolved contamination concerns. Common brownfield properties include historic dry cleaners, former gas stations, auto repair shops, and closed manufacturing facilities. These properties can be contaminated with various chemicals

such as tetrachloroethylene (PCE) used in dry cleaning, benzene from petroleum fuel, and heavy metals such as lead from manufacturing activities. The Section 128(a) Brownfields Program performs Phase I and Phase II Environmental Site Assessments (ESAs) and cleanups at brownfield sites in Nebraska. A Phase I ESA consists of a review of historical documents and regulatory databases to determine if there are any environmental concerns associated with a property's past (e.g., the property was a gas station in the 1950s). If environmental concerns are identified, a Phase II ESA can be completed that consists of collecting soil, soil gas, and/or groundwater samples to identify if there has been a release to the environment. These ESAs are performed by NDEE with limited federal funds at no cost to interested parties in Nebraska communities. The ESA can also include surveys of existing structures on the property for the presence of lead-based paint, mold or asbestos. Cleanups consist of asbestos abatement and can also involve a variety of measures that are implemented to contain and reduce contamination at a site. During the past year, NDEE has performed nine Phase I assessments, four Phase II assessments, 12 asbestos surveys, two lead-based paint surveys, and three mold surveys. NDEE received two applications this year for partial cleanup assistance for removal of asbestos prior to building renovation or demolition. NDEE also completed Brownfields Inventories for three Nebraska communities over the past year. A Brownfield Inventory helps identify all potentially contaminated properties in a neighborhood, corridor, or other area slated for redevelopment. It is similar to a Phase I ESA except it covers a larger area instead of a single property.

Photos courtesy of Sara Arnett – Wood River Vision 20/20

When the Good Samaritan Building in Wood River was left abandoned after the bomb cyclone of 2019, the community saw an opportunity to turn the unutilized space into a much-needed day care facility. To ensure the property was safe for children, the non-profit Wood River Vision 20/20 asked the NDEE to complete a Phase I Assessment, an asbestos survey, and a lead-based paint survey for the facility. Additional brownfields funding was used to help remove the asbestos that was identified during the survey. The Stick Creek Kids Child Development Center officially celebrated its grand opening on May 1, 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 our program can be used by communities for economic development. Workshops are arranged with a goal to increase knowledge and understanding of the environmental stigma attached to brownfield properties and how our resources can serve as a catalyst to bring these properties back to productive reuse. These workshops serve to connect stakeholders of Nebraska communities with resource providers and consist of presentations from a variety of people that play an important role in economic development.

Many in-person workshops were cancelled over the past year due to the COVID-19 pandemic; however, outreach activities proceeded using virtual platforms. NDEE partnered with the Kansas State University Technical Assistance to Brownfields Program (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. A recording of the webinar was subsequently posted to the NDEE website to allow for future reference. The NDEE Brownfields Coordinator was invited to speak at the Papio-Missouri River Natural Resources District (NRD) virtual workshop to discuss available funding and resources related to updating the NRD's hazard mitigation plan. And several virtual meetings were held with KSU TAB, the Environmental Protection Agency Region 7 (EPA), the Benkelman Community Redevelopment Authority, and the McCook Economic Development Corporation to begin planning for the for the first in-person workshop next fiscal year following the pandemic.

NDEE's Brownfields Coordinator, Taryn Serwatowski, discusses the Brownfields Program and available resources on a live webinar that aired May 13, 2021. A recording of the webinar is archived on the NDEE website for future reference for Nebraska communities.

Meeting one on one with community members is another outreach approach that the NDEE's Brownfields Program uses to assist communities in need. The NDEE Brownfields Coordinator, along with KSU TAB and EPA, held several Partnership Resource Review virtual meetings the past year. The purpose of a Partnership Resource Review meeting is to discuss strategies to help a community develop a competitive EPA 104(k) Brownfields Assessment, Cleanup, or Revolving Loan Fund Grant Proposal, and/or to make a community 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 for the Dempster Industries facility; the City of Norfolk for their Riverfront Redevelopment Plan, as well as the abandoned Tyson plant and Stockyards; the City of Minden and Harold Warp Foundation for renovations to the Harold Warp Pioneer Village; the Metropolitan Area Planning Agency for an abandoned Liberal Arts College in Blair; the City of Gering for their 10th Street corridor; Cozad Development Corporation for the former Tenneco facility; the Village of Elm Creek for an abandoned hotel and gas station complex; and Custer County Economic Development for an abandoned nursing home facility. The Brownfields Coordinator also had separate calls with Keith County Economic Development, the City of Ord, and a compost business owner in Omaha to discuss how the Brownfields Program

can assist in bringing their projects and vision to fruition. Outreach efforts by the Brownfields Coordinator also helped three Nebraska communities secure technical assistance grants from the EPA. The City of Fremont was awarded a Building Blocks for Sustainable Communities: Green and Complete Streets grant. Through this grant an environmental consultant worked with Fremont's Planning Commission to develop design elements and implementation strategies for greener, safer, and more aesthetically appealing thoroughfares and sidewalks. The City of Beatrice was selected for a technical assistance grant valued at $30,000 for a contractor to develop a market analysis, reuse vision, and compile available resources to assist with redeveloping the former Dempster Industries facility. And the City of Bayard was selected for an EPA pilot study to provide redevelopment strategies to rural, low-population communities to revitalize their downtowns.

Resource Conservation and Recovery Act (RCRA) Program

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

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

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

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

Since March 2019, the NDEE has had ongoing responses to two major activities: statewide flooding in 2019 and COVID-19 pandemic in 2020 which continues into 2021. The NDEE continues to provide compliance assistance to generators and the public for the disposal of flood-related wastes as part of the Governor's Long Term Recovery Task Force, and regularly

examines potential hazardous waste issues related to pandemic response activities. The NDEE is generating and updating guidance documents pertaining to responses to flood and pandemic issues as new questions on waste handling arise.

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

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

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

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

Significant Accomplishments

Significant corrective action accomplishments during FY2021 include:

- Proprietary institutional control established for Snyder Industries.

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

Nebraska's RCRA program helps generators notify and manage their generator status by having them use the myRCRAID module, also within the national RCRAInfo database. In addition, Nebraska recommends that the facility hazardous waste managers prepare their 8700-12 Hazardous Waste notification form electronically. The Department currently has 520 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. In the past, a formal letter was prepared and mailed certified for each of these update requests, which was the past practice, saving time and reducing 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:

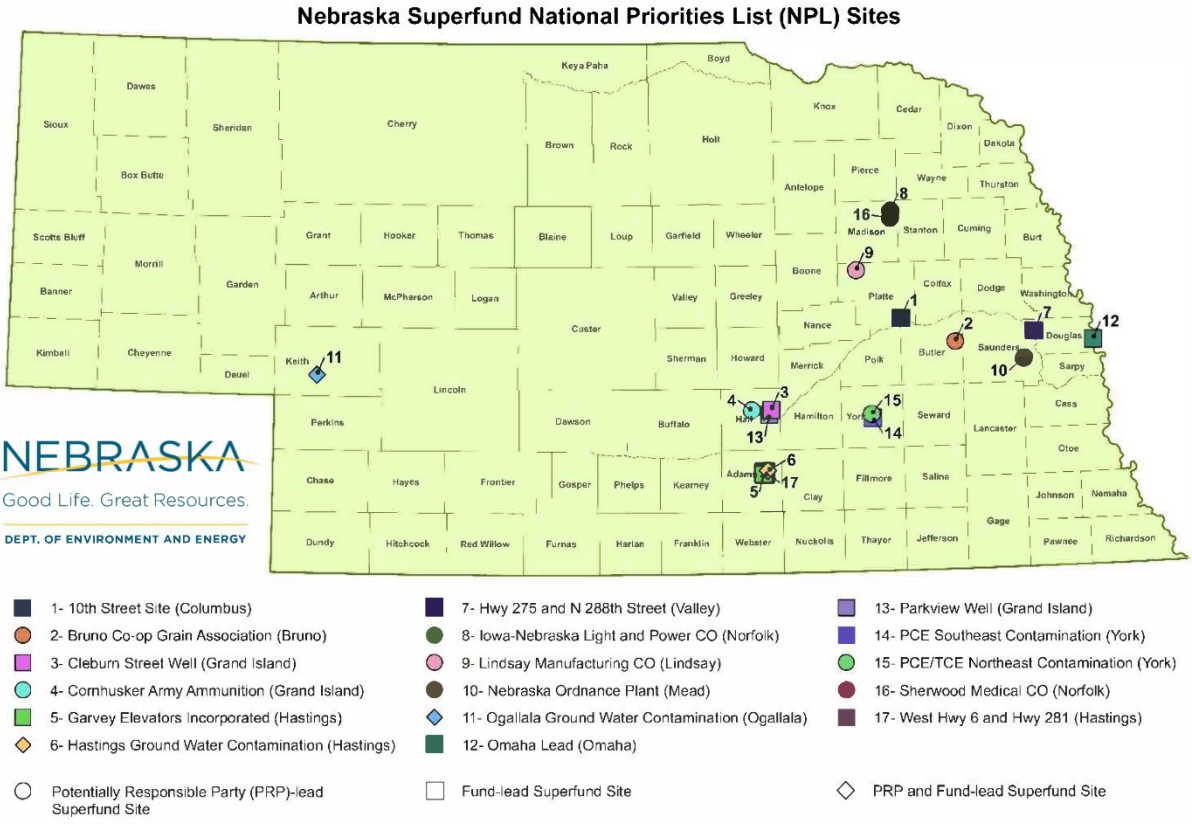
- 109 Large Quantity Generators (greater than 2,200 pounds of hazardous waste generated per month)
- 414 Small Quantity Generators (between 220 and 2,200 pounds generated per month)
- 1,440 Conditionally Exempt Small Quantity Generators (less than 220 pounds generated per month)
- 1 Hazardous Waste Incinerator Facility
- 3 Treatment, Storage or Disposal Facilities
- 18 Hazardous Waste Transporters

Location by County of Large Quantity Generators in Nebraska Regulated Under RCRA			
Buffalo 3		Madison 2	Stanton 1
Butler 1	Hall 6	Otoe 1	Thayer 1
Cuming 1	Hooker 1	Phelps 1	Washington 2
Cheyenne 1	Holt 2	Platte 5	Wayne 1
Dakota 2	Kimball 1	Red Willow 1	York 1
Dawson 2	Knox 1	Sarpy 6	
Dodge 3	Lancaster 25	Scotts Bluff 3	
Douglas 30	Lincoln 2	Seward 3	

Summary of FY2021 Activities		
Compliance Assistance	**State**	**EPA**
On-site Visits	1	*
Direct Assistance Contacts	589	*
Public Outreach Presentations (total 325 in attendance)	3 / 339	*
Complaints Received	17	*
Complaints Investigated	17	*
Complaints Closes	17	*
		**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	0	0
Modifications	4	0
EPA Corrective Action Orders	1	0
RCRA Record Reviews		
Financial Assurance Closure/Post Closure	24	0
Corrective Action	1	0

Superfund Program

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



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

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

Site Assessment

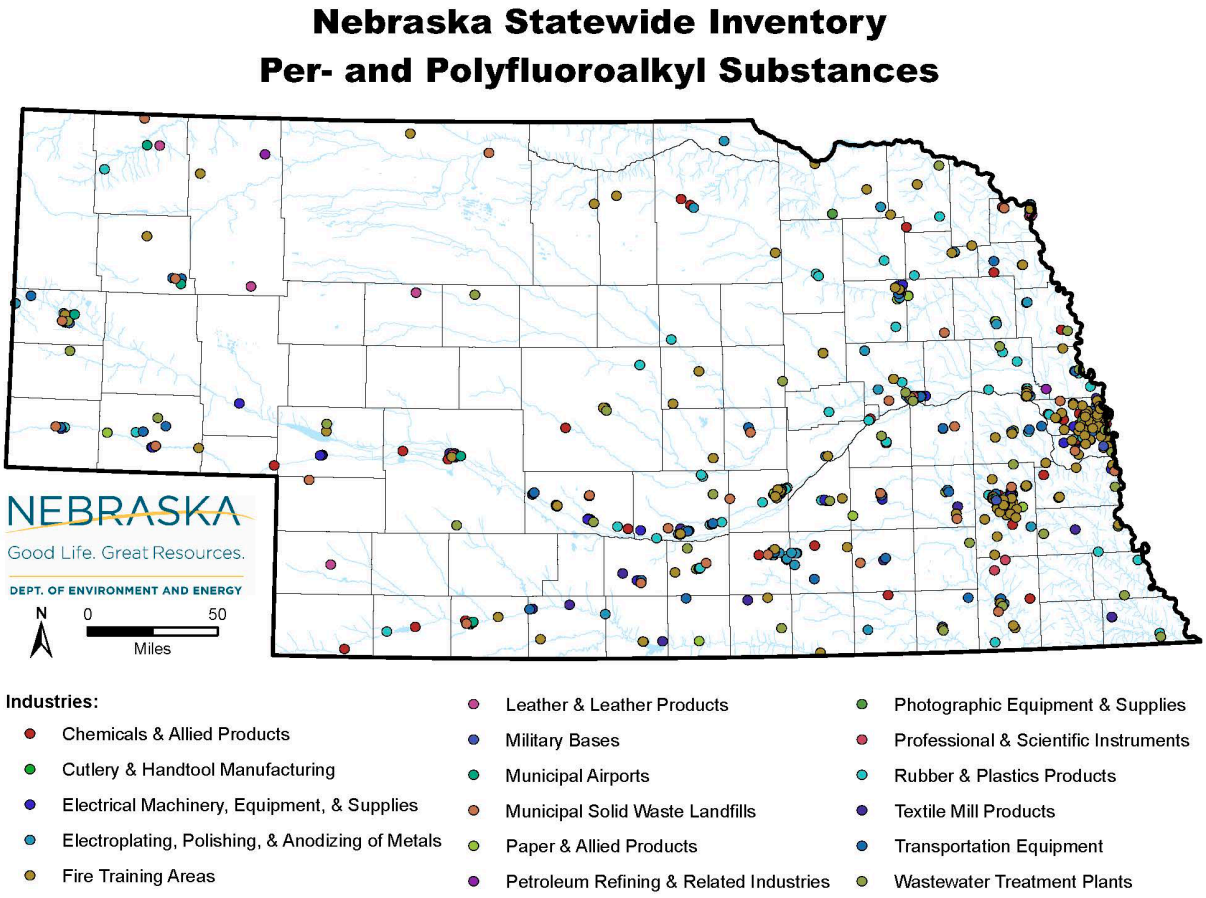
The Superfund Site Assessment program identifies, assesses, and characterizes sites where hazardous substances are known or suspected to pose a threat to public health and/or the environment. Currently, the sites investigated in Nebraska consist primarily of areas around contaminated municipal and private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

Site assessment steps:

1. Pre-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 two CERCLA pre-screening assessments, nine abbreviated preliminary assessments, one site inspection, two expanded site inspections, and one site reassessment.

In 2017, NDEE compiled a Statewide Inventory of Per- and Polyfluoroalkyl Substances (PFAS). PFAS are a large group of man-made chemicals used in consumer products, industrial processes, and firefighting foams. In use since the 1940's, PFAS are resistant to heat, oils, stains, grease, and water—properties which contribute to their persistence in the environment. EPA has identified PFAS as contaminants of emerging concern that can have adverse health effects if found in drinking water supplies. The figure below illustrates the locations of industries present across the state that potentially used or manufactured PFAS based on the 2017 state inventory report.



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. The NDEE is currently completing 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 inventory include metal and chrome plating facilities and fire training areas. The two pre-CERLA screening assessments were completed to evaluate whether PFAS and volatile organic compounds (VOCs) are present in groundwater downgradient of industrial areas with electroplating facilities. Fire training areas are areas of interest that will be investigated as pre-CERCLA screening assessments in the future.

NDEE also 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.

What is Vapor Intrusion?

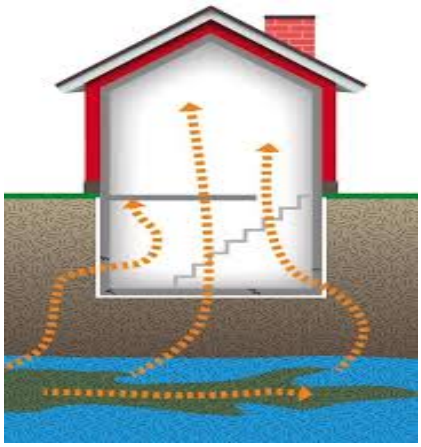


Photo courtesy of the Minnesota Pollution Control Agency

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

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

NPL Site Management Assistance

The Superfund Management Assistance program provides management and technical support to the EPA at Superfund NPL sites in Nebraska. This assistance includes reviewing technical documents and participating in the Superfund remedy selection process. As the most heavily contaminated sites in the nation, NPL sites are generally large and complex, because they often involve more than one contaminated media and have multiple sub-units with varying contaminants. The investigation and cleanup activities at these sites are organized into several phases, including remedial investigations, groundwater modeling, baseline risk assessments, feasibility studies/engineering cost evaluations, field-scale pilot studies, remedy design/construction, and remedy operation and maintenance. NDEE also participates in public meetings with citizens and local officials in the development of cleanup plans.

The Superfund law seeks to identify those responsible for contamination to pay for the cleanup. If it is not possible to identify the responsible party, or if the responsible party is insolvent, cleanup is paid for by a combination of Federal and State funds. Of the 17 active sites on the National Priorities List, seven are being addressed by the responsible party, eight are being addressed as fund lead by Superfund dollars, and two are being addressed as both responsible party and fund lead. For fund lead sites, the State of Nebraska enters into contracts with EPA and agrees to pay 10% of the capital costs of constructing the cleanup system, 10% of initial startup operation costs, and 10% of on-going operation and maintenance costs for the first 10 years of the project. After the initial 10 years, the State pays 100% of the operation and maintenance costs. Initially, NDEE funded these costs with Legislative appropriations of general funds. During 2004-2007, NDEE received Nebraska Environmental Trust grant funding to pay these costs. Beginning in FY18, NDEE was authorized to fund these costs through a transfer of up to $1.5 million from the Petroleum Release Remedial Action Cash Fund into the Superfund Cost Share Cash fund. For FY2021, the NDEE's cost share was $768,631. Future projections of these costs are $1,002,028 in FY2022, $1,441,679 in FY2023, and $2,769,679 in FY2024.

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

What is In-Situ Thermal Treatment?

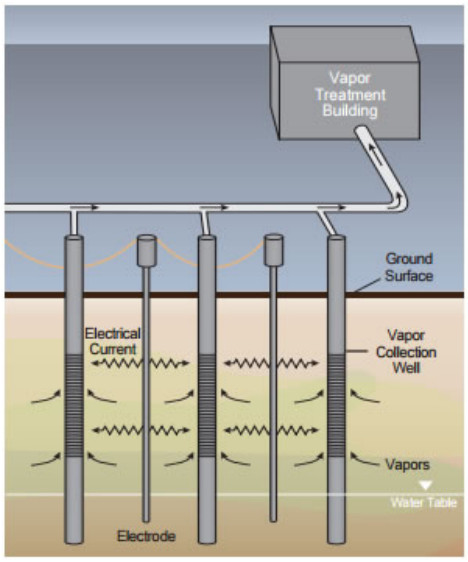


Photo courtesy of the EPA

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

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

The Omaha Lead Superfund 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. In February 2020, NDEE concurred with a partial delisting of 117 properties at the site, which were formally delisted on the Federal Register on July 21, 2020. NDEE also concurred with the partial delisting of 96 properties this year; EPA issued a notice of intent to partially delete these properties in mid-May 2021. 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.

The State began paying 100% of the operation and maintenance costs for the 10th Street Site in Columbus in January 2016, the Ogallala Groundwater Contamination Site in December 2016, and the Hastings Second Street subsite of the Hastings Groundwater Contamination Site in June 2017. 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. The Parkview Well Site in Grand Island was transferred to the State in September 2021, and includes operation and maintenance of a groundwater extraction and treatment system.

What is Groundwater Extraction and Treatment?

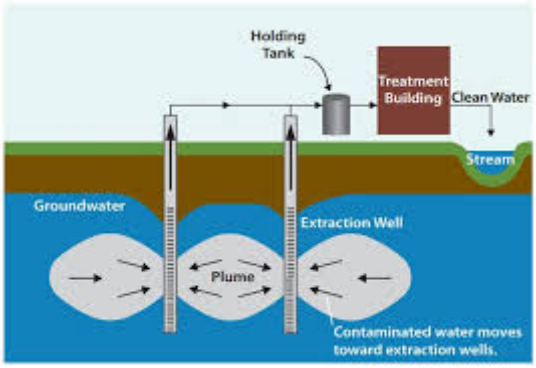


Photo courtesy of the EPA

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

Pictured right: The groundwater extraction and treatment system at the Columbus 10th Street site.

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

Active National Priorities List Sites in Nebraska

Cornhusker Army Ammo Plant (Grand Island)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702020

Hastings Groundwater Contamination (Hastings)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701973

Lindsay Manufacturing Co. (Lindsay)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701913

Nebraska Ordnance Plant (Mead)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702031

10th Street Site (Columbus)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702001

Cleburn Street (Grand Island)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701986

Ogallala Groundwater Contamination Site (Ogallala)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702287

Bruno Coop Association (Bruno)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702000

Sherwood Medical (Norfolk)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0702086

Omaha Lead Site (Omaha)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0703481

Parkview Well Site (Grand Island)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704456

Garvey Elevator (Hastings)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704351

West Highway 6 & 281 (Hastings)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704738

York PCE/TCE Northeast Contamination
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0706105&msspp=med

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

Iowa-Nebraska Light and Power Co. (Norfolk)
https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0702377&msspp=med

Old Highway 275 and North 288th Street (Valley)
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0704272&msspp=med

Federal Facilities

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

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

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

Solid Waste Program

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

Duties assigned to this program include:

- Permit issuance, renewal, and modification;
- Response to inquiries related to facility operations;
- Compliance inspections and enforcement actions;
- Investigation of citizen complaints;
- Alternate waste management method approvals;
- Groundwater investigations and groundwater/soil remediation projects at permitted and non-permitted facilities;
- Gas emissions monitoring related to landfills and other permitted sites;
- Closure inspections and monitoring of closure and post-closure activities;
- Conducting public information sessions and hearings related to permits;

- Financial assurance review and monitoring compliance; and
- Assisting regulated facilities and the general public in recycling, re-use, and proper management of waste-like materials.

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

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

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

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

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

Total Permitted Facilities in FY2021	
Municipal Solid Waste Disposal Areas (Landfills)	23
Solid Waste Compost Sites	8
Transfer Stations	36
Materials Recovery Facilities	5
Construction & Demolition Waste Disposal Areas	32
Delisted Waste Disposal Area	1
Processing Facility	2
Fossil Fuel Combustion Ash Disposal Areas	8
Total	115

The following table indicates the number of inspections, complaints and permitting-related activities that the program was involved with in FY2021:

Summary of FY21 Activities	
Compliance Assistance	
Facility Inspections (General)	120
Facility Closure Inspection	2
Facility Construction Inspections	0
Facility Comprehensive Renewal Inspections	17
Complaints Received	142
Complaints Investigated	142
Complaints Closed or Referred	130
Permitting	
New Permits Issued	1
Permit Renewals	13
Major Permit Modifications	4
Public Hearings	2
Permits Transferred	0
Financial Assurance Reviews	134
Facilities Closed	1

Assessment Monitoring and Remedial Measures

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

The first phase is detection monitoring. During this phase, a facility will monitor for a discrete number of contaminants that would be indicative of a potential release of contaminants from the facility. During 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, FY2020 Permitting	
Renewed Hauler Permits	23
New Permits Issued	0
Permits Expired	1
Financial Assurance Reviews	7

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