

Nebraska Dept. of Environment and Energy – Update & Vision

2019 Power Summit



Agency Vision

Will Meet Our Statutory Responsibilities

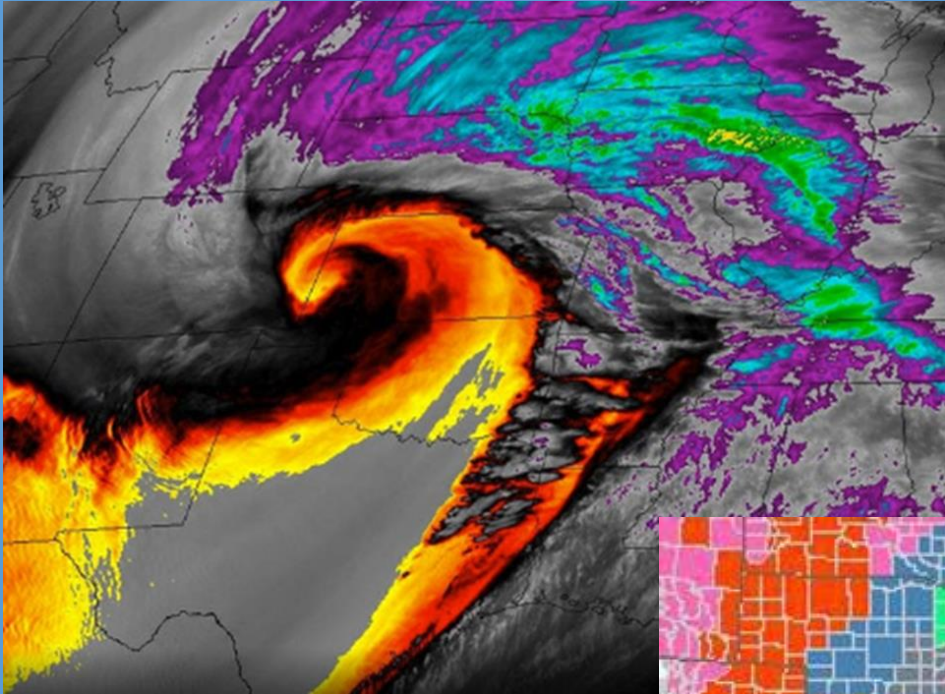
- Be Responsive
- Use Common Sense in Problem Solving
- Be Assistance Focused
- Believe we should help “local people solve local problems”

We help create opportunity through more effective, more efficient and customer focused state government

NEO+DEQ=NDEE

- Legislature passed LB302 45-0 effective July 1, 2019
- 17 FTE in the transfer
- Located at 521 S 14th street “Executive Building”
- Investigating adjustments to SRF on site loan to replicate Dollar and Energy program
- Starting work on 404 program

Winter Storm Ulmer Bomb Cyclone (bombogenesis)



3/13/19 Ulmer becomes a Bomb Cyclone (NASA)



3/12/19 Winter Storm Ulmer (NWS)

- National Weather Service Map
 - Red = Blizzard Warning
 - Blue = Winter Storm
 - Grey = Dense Fog
 - Brown = Wind Warning
 - Green = Potential Flooding
 - Yellow = Tornado Watch
- Sharp drop atmospheric pressure (>24 millibars within 24 hours)
 - Dropped 34 millibars to 971 = Category 3 Hurricane
 - Results in extreme winds and heavy precipitation

Western Nebraska





NEMA, 2019

March 2019 Flood Ag Section





NPPD, 2019

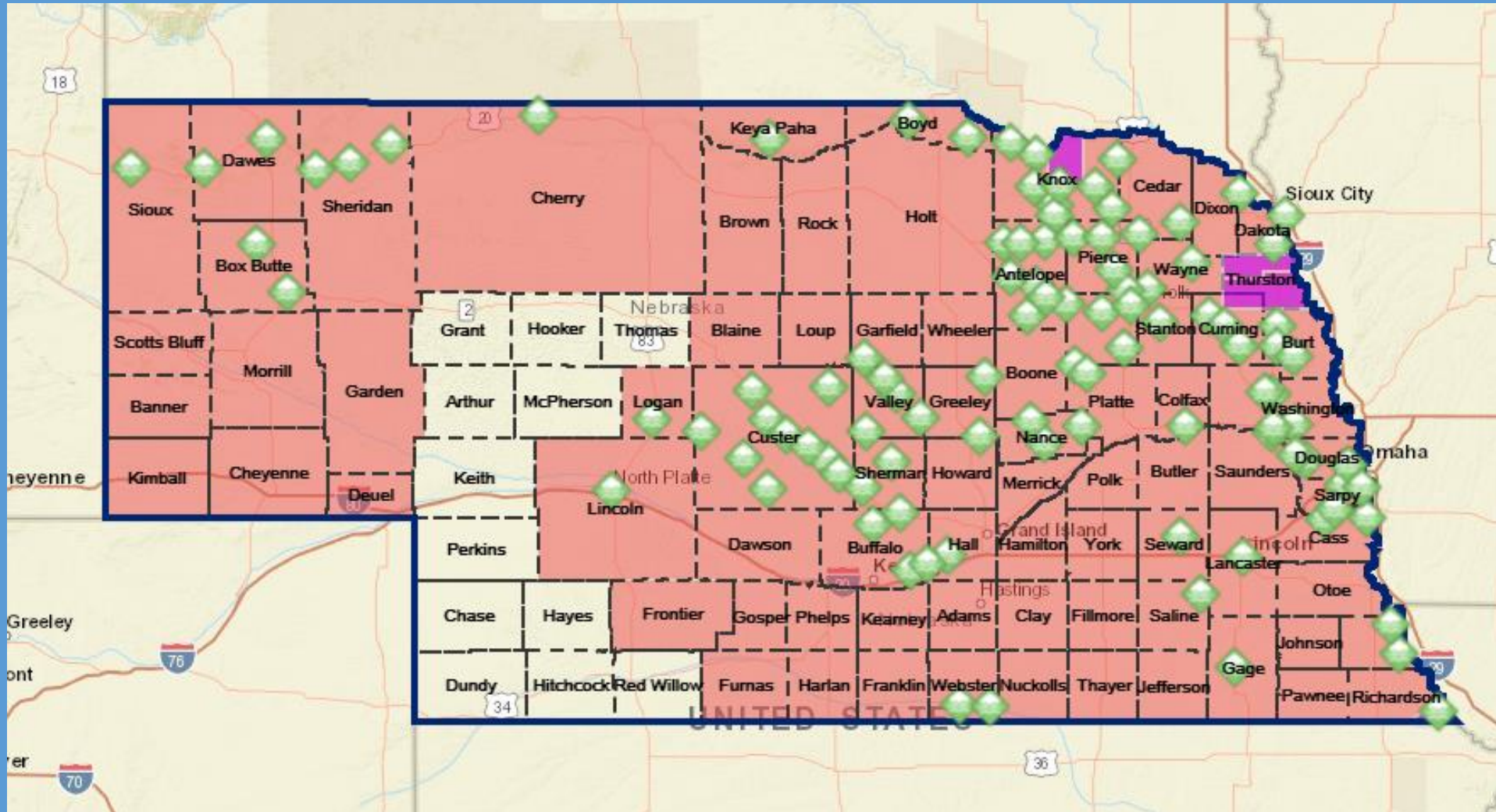
Spencer Dam, on Niobrara River, before and after flood. Dam and dike overtopped by floodwaters and failed, rafted ice blocks battered the pump house. Most of Dike was completely washed away, only portions of concrete dam remain.







Declared Emergency Areas



Flood Damage Estimates

- Loss of Livestock and Crop Losses total nearly \$900,000,000
- Infrastructure of roads, bridges, and more, nearly half a billion dollars lost
- Over 2,000 Homes and 340 businesses damaged or destroyed
- 104 cities, 81 counties, and 5 tribal areas declare emergencies
 - Major damage in Nance and Sarpy counties
 - (\$231 million and \$106 million, respectively)

Community Public Water Systems Status



Non-Community Public Water Systems Status



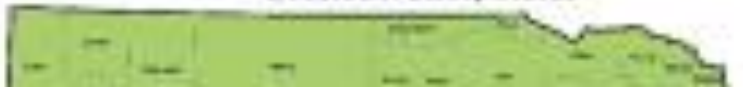
Wastewater Facility Status



Waste Debris Management Status



Livestock Facility Status



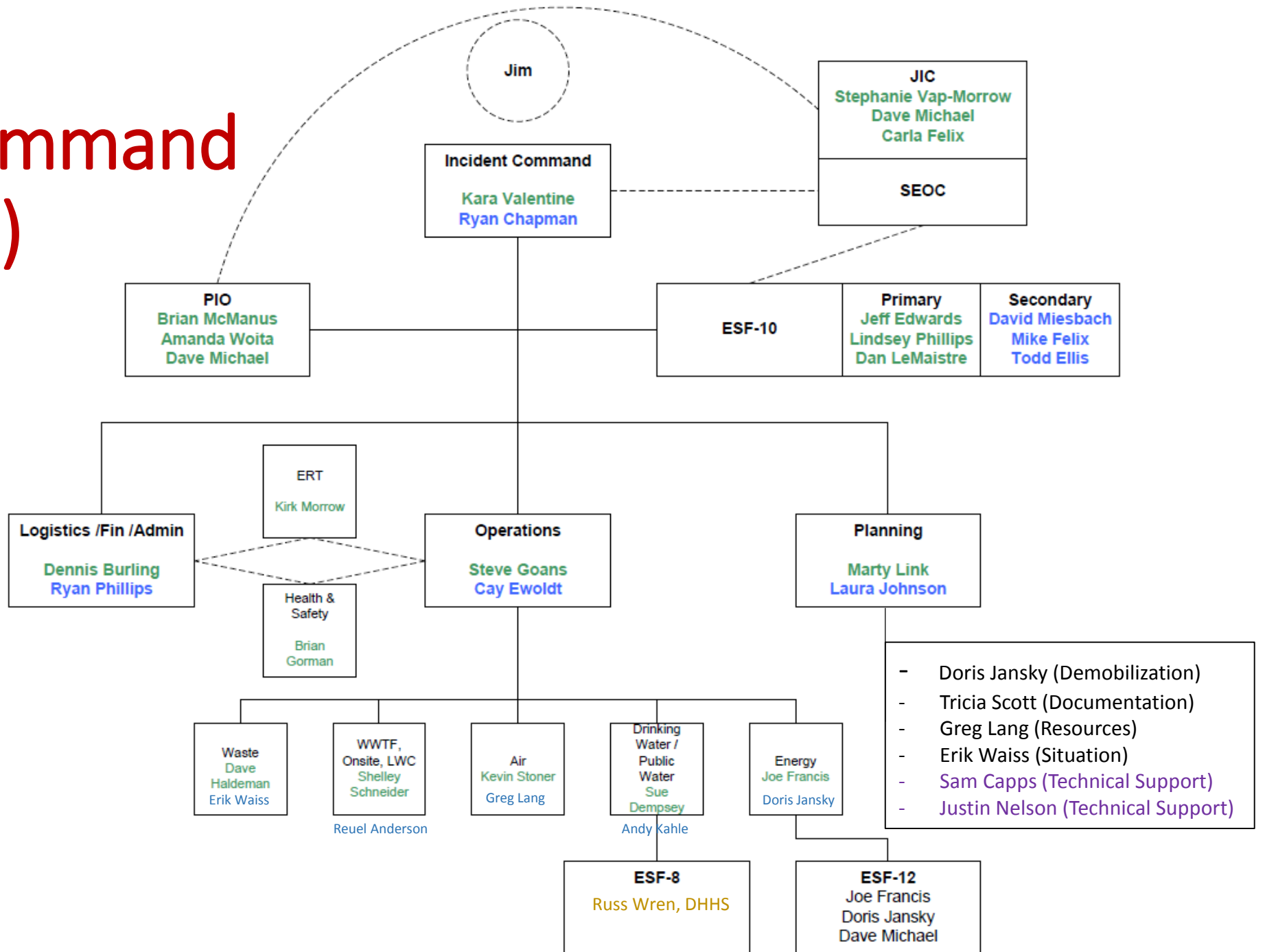
Branches	
Wastewater	<p>Objectives:</p> <ul style="list-style-type: none"> • Develop, maintain, update and evaluate collection system master plan in coordination with the local health department, local health department • Water systems are subject to storm management <p>Status:</p> <ul style="list-style-type: none"> • Work with the state on opening up a recovery program for flood-damaged water systems • Collection facilities repaired — 883 • Total wastewater treatment capacity — 180 • Total wastewater treatment capacity — 1,211 • Work with emergency management on multiple projects
Wastewater	<p>Objectives:</p> <ul style="list-style-type: none"> • Develop and discharge and evaluate conditions for damage • Work with local health department, local health department, local health department • Work with local health department, local health department, local health department • Work with local health department, local health department, local health department <p>Status:</p> <ul style="list-style-type: none"> • Full-scale WWT treatment facilities are operating in order to provide for the treatment of wastewater • Full-scale WWT treatment facilities are operating in order to provide for the treatment of wastewater • Full-scale WWT treatment facilities are operating in order to provide for the treatment of wastewater • Full-scale WWT treatment facilities are operating in order to provide for the treatment of wastewater
Drinking water	<p>Objectives:</p> <ul style="list-style-type: none"> • Develop and discharge and evaluate conditions for damage • Work with local health department, local health department, local health department <p>Status:</p> <ul style="list-style-type: none"> • Current by local community (PWS) and 21 non-community PWS with primary treatment of water still offline • Water distribution system is available in affected areas and lines. There is an — with 20 million and 20 million gallons of water — with 20 million and 20 million gallons of water
Air	<p>Objectives:</p> <ul style="list-style-type: none"> • Coordinate with local emergency management, the department for security of town, county or local health department • Work with public information office to put the public on notice about air requirements <p>Status:</p> <ul style="list-style-type: none"> • Air permits required — 2 • Air permits issued — 2 • Air permits denied — 0

Nebraska Strong (The Human Side)



http://netnebraska.org/interactive-multimedia/news/and-floods-came-nebraska-2019?field_media_categories_tid_1=All&title=&tid=&page=8

Incident Command System (ICS) Structure



QR Code Sheet



This guidance document is advisory in nature but is binding on an agency until amended by such agency. A guidance document does not include internal procedural documents that only affect the internal operations of the agency and does not impose additional requirements or penalties on regulated parties or include confidential information or rules and regulations made in accordance with the Administrative Procedure Act. If you believe that this guidance document imposes additional requirements or penalties on regulated parties, you may request a review of the document.

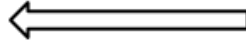
19-123

Revised - April, 2019

Natural Disaster - Flood Guidance QR Sheet

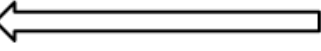
This guidance has been created to offer quick in-the-field reference to critical documents listed on the NDEQ webpage: <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Disaster> Use your phone's camera or barcode scanner to pull up the referenced documents. (May require download of a QR-scan app)

Natural Disaster Debris Management
Including domestic and hazardous wastes



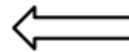
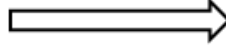
Natural Disaster Clean-Up Directory
Short 1-page version of first document

Flood Damaged Structure Demolition and Disposal
Asbestos, Burning, Burial, Landfilling



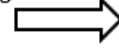
Flood Sediment Cleanup
Sediment on Field, Etc.

Flood Damaged Grain and Hay
Also corn stalks, vegetative debris

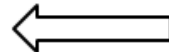


Floodwater Sandbag Re-use and Disposal

Guidance for Clean-up Following Tornadoes
and Severe Storms

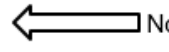
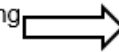


More debris Management recommendations



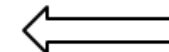
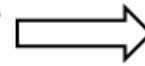
Q & A Regarding Wastewater Bypasses
During a Flood

Information for Those Considering Bypassing
Wastewater Treatment Plants



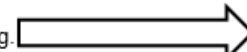
Notification of Discharge of Livestock Waste

Pollution Prevention Tips for Homeowners
Preparing to Evacuate from Flood



Disposal of Animal Carcasses
On site burial/composting, landfilling, rendering

Additional guidance available
Including "Orphaned" Tank reporting.



RESOURCES:

- NDEQ Waste Management Section (402) 471-4210
- NDEQ Waste Water Section (402) 471-8830
- NDEQ Toll Free Number (877) 253-2803
- NDEQ Hazardous Waste Compliance Assistant (402) 471-8308
- Email questions to: NDEQ.moreinfo@nebraska.gov

Produced by: Nebraska Department of Environmental Quality, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402) 471-2186. To view this, and other information related to our agency, visit our web site at <http://deq.ne.gov>.



NDEE, 2019



EPA Mobile Lab for domestic well testing



What were the results?

Location	Date of event	Samples Received	Positive Coliform	Positive E.coli	Negatives	Percent Positive Coliform/E.coli
Fremont	3-21-19	80	24	11	56	30/14
Norfolk	3-22-19	148	42	15	106	28/10
Verdigre	3-23-19	52	23	9	29	44/17
Columbus	3-28-19	167	36	10	131	22/6
West Point	3-29-19	120	35	11	85	29/9
Fremont	4-1-19	127	32	10	95	25/8
Ashland	4-2-19	76	11	2	65	15/3
Niobrara	4-9-19					
Fullerton	4-10-19					
Totals		770	203	68	567	

SRF – Funding Response

- State Revolving Fund – Financial Assistance for public water (DWSRF) and wastewater Projects (CWSRF)
- EPA/FEMA Memorandum of Understanding
 - Streamlines coordination between FEMA and the SRFs to enable funding to support essential infrastructure projects to be made available as quickly as possible
- Nebraska's SRF
 - 0% Financing, Maximum year terms
 - Balloon repayment structuring (max. \$2,000)
 - Towns use the SRFs as a cash flow means while getting their infrastructure back

Orphan Tank Program

- NEMA/FEMA/EPA program to locate and remove orphan fuel tanks
- Propane, Fuel, and other tanks floated away during the flood
- Many found in difficult to reach locations
- Property owners could contact the NDEE Flood Hotline to report tanks, that information was forwarded to responders
- Tank program ran through the month of May



Photo courtesy Dean McFetrich, Ray-Carroll Fuels

Agency Activities and Outreach

- Cross-agency Meeting in March 2019
 - Included fed/state/local agencies, NEMA, UNL, burn associations
 - Discussed burn activities, monitoring strategies, cross-agency communication, and public outreach
- Lean Six Sigma Process Improvement
- Webinars
- NDEE University
- Grow Nebraska Team
- Workshops
- Skype huddles
- ELMS Huddle with EPA
- NDEE webpage updated
- Numerous meetings with Farmers, Ranchers, Business leaders and Citizens

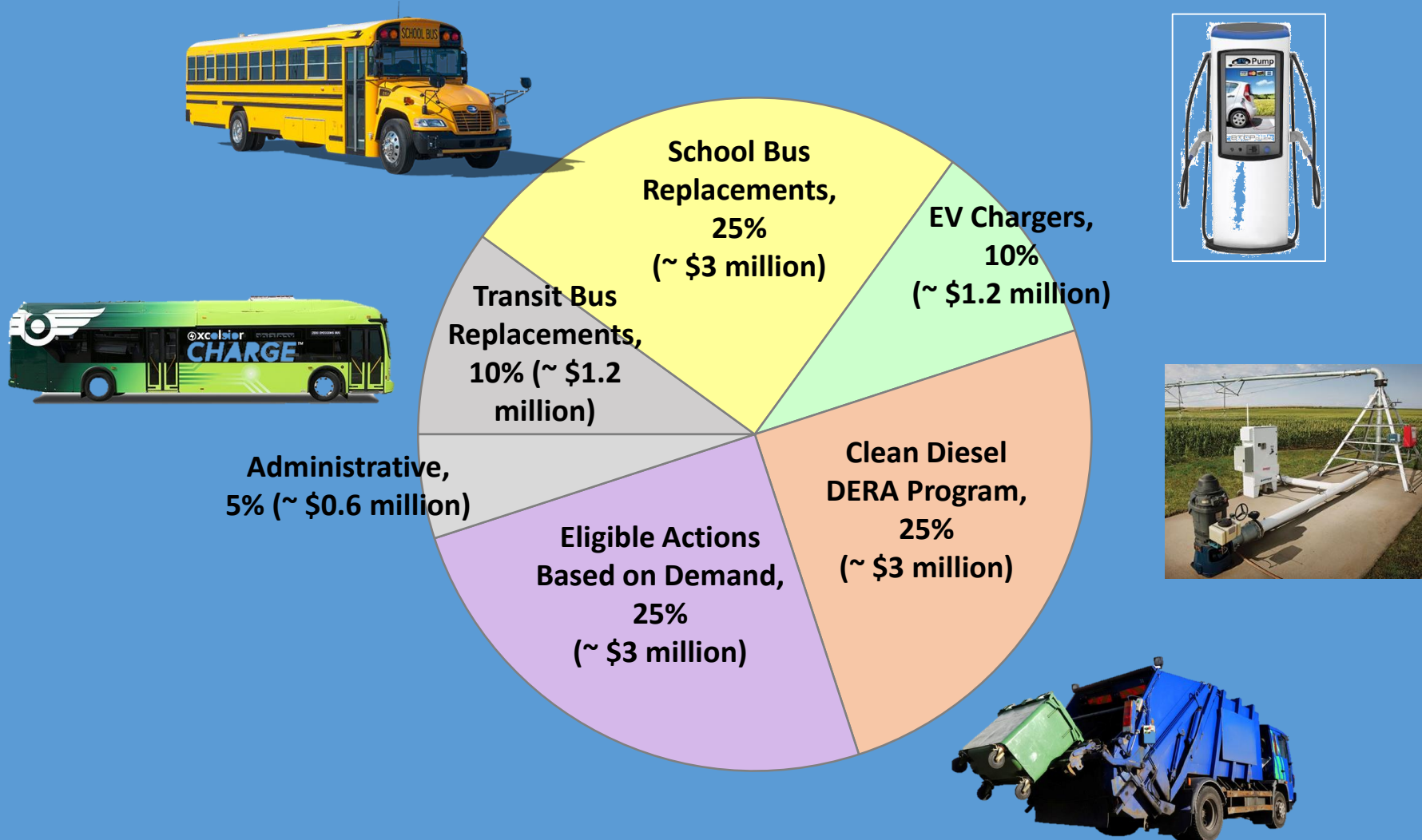


DEQ Store Front Concept for Utilizing and Providing Online Services
Projected 2018 work

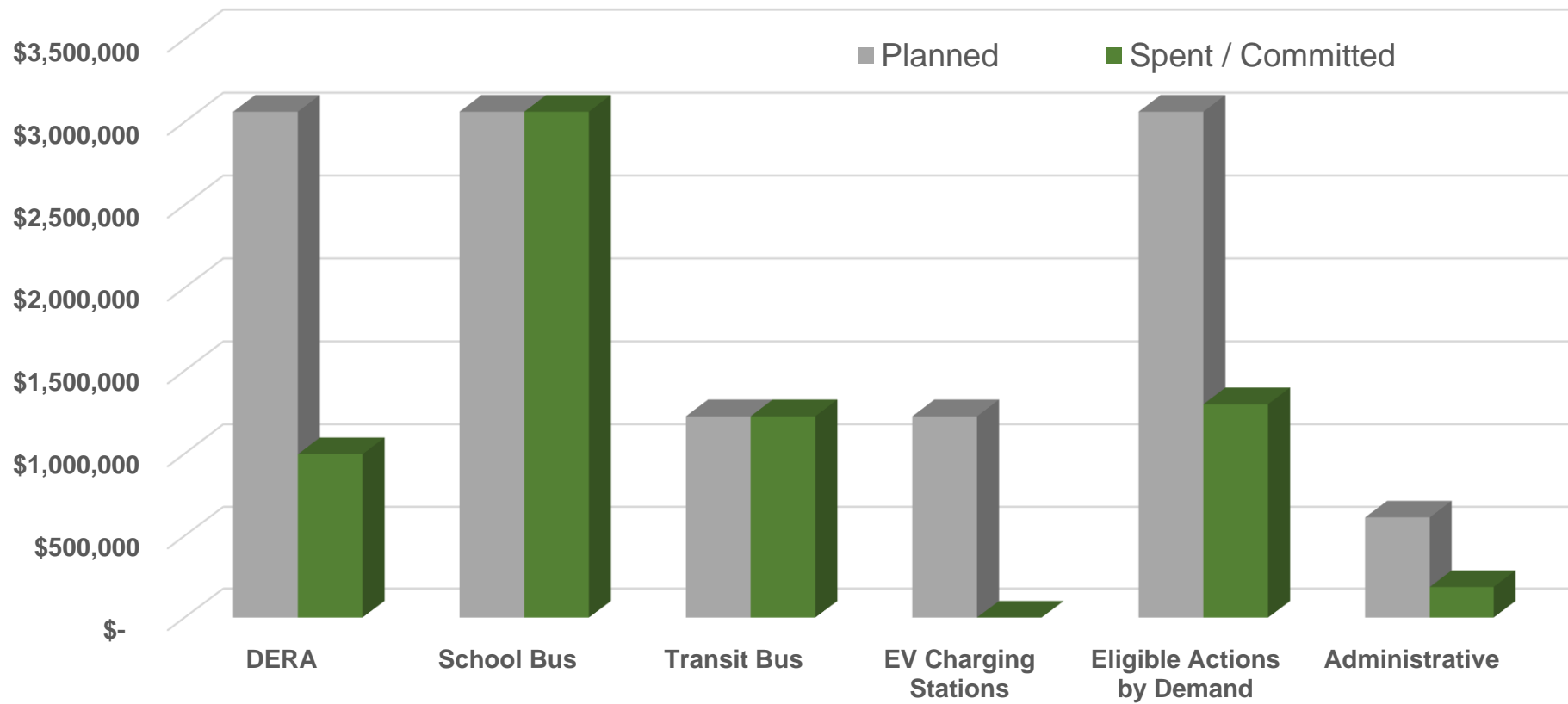
Permits/Authorizations/Registrations		Reporting	Grants/Fundal reimbursements	Certification/Licensing/Individuals	Notifications of work/activities	Other Online Services Customer Base is all citizens of the state
Air General Permits Asphalt Plant - Drum	Industrial Stormwater	TER 2	Waste Grant - Business Fee	Drabs (Septic Systems)	MESHAP Demolition & Renovation	ECM public record access
Air General Permits Asphalt Plant - Batch	Construction Stormwater	Emission Inventory	Waste Grant - Disposal Fee	Operator Certification	MESHAP Fire Training	Illap Server with public record access
Air General Permits Concrete Plant - uncontrolled	NPDES General - Pesticides	TR	Waste Grant - Tire Collection	Investigator Applicator Certificates	Air Relocation Notice	Keystone Pipeline comment & documents
Air General Permits Concrete Plant - Controlled	NPDES General - Dewatering	DIRs (with EPA)	Waste Grant - Tire Reimbursement		Livestock Request for Inspection	Clean Power Plan comment & documents
Air General Permits Aggregate Processing	NPDES General - Hydrostatic Testing	HW Biennial Reports	Waste Grant - Deconstruction		Notifications/complaints	State Waste Management Plan comment & documents
Air General Permits Emergency Engines NSPS III	NPDES General - Groundwater remediation	Nutrient Management	Litter - Recycling			Settlement comment & documents
Air General Permits Emergency Engines - other	Air General Permits Incinerator - Construct	Sludge reports	Litter - Cleanups			Public comment for all permits
Air General Permits Surface Cooling	Air General Permits Incinerator - Operating		Litter - Public Education			Drabs (Septic System) Database Searches
Burn Permits	Air Operating		319H Grants			AIRN database searches
Onsite registrations	Air Construction		Stormwater Grants			
Ag - State	401/404		Source Water Grants			
Ag - NPDES	UCME		Title 200 Reimbursements			
IWM - landfills	RCRA		Online Payment Process			
NPDES - individual	Chemigation		State Revolving Fund SRF			
WWTP Construction	Waste Tire Hauler					
OWT Construction	VCP					
Brownfields						

	In Production	Development / In Process	Idea
In Production 2018			
customer usage by operational status			
annual customer usage	production	development	idea
Totals	14555	12271	849 1485
percent-->		84	6 10

Nebraska's Selected Mitigation Actions



VW Funding Status, August 2019





AGENCY LEADERSHIP/OVERSIGHT

Jim Macy-Director

Kara Valentine-Deputy Director-Air & Land Divisions

Joe Francis- Associate Director- Energy & Assistance Division

NDEE GROW NEBRASKA TEAM

CORE MEMBERS/TITLES

Belinda Fowler-Hagen-Grow Nebraska Team
Lead/Environmental Assistance Coordinator

Gary Buttermore-Air Permitting Section Supervisor

Reuel Anderson-NPDES Section Supervisor

Todd Ellis-Air Compliance Section Supervisor

Brian McManus-Public Information Office Supervisor

Jason Guernsey-Business Recruitment Manager (NDED)

Jeffery Edwards-Waste Compliance Section Supervisor

ALTERNATE MEMBERS/TITLES

Sarah Starostka- Air Permitting Unit Supervisor

Patrick Ducey- Environmental Program Specialist (NPDES)

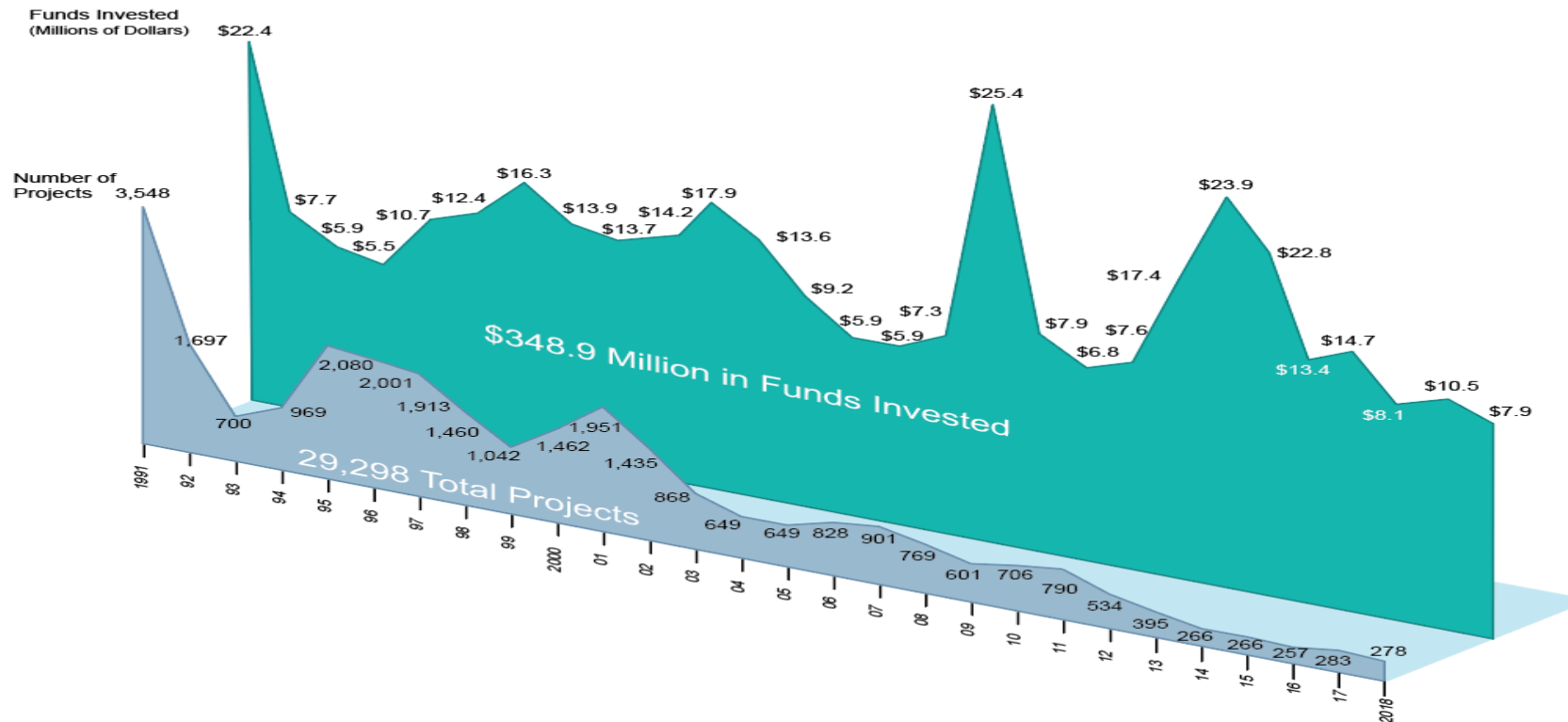
Brad Pracheil- Air Compliance Unit Supervisor

Amanda Woita- Public Information Officer/Social media lead

Erik Waiss- Waste Environmental Asst. Coordinator

3

Dollar and Energy Saving Loans Total Dollars Invested and Number of Projects 1990- 2018



Total Dollar and Energy Saving Loan Funds Invested by Project Category as of June 30, 2018

Transportation/Telecommunications

39 projects
Total cost of projects \$8,502,805
NEO share \$5,309,734

Wind, Solar, Fuel Cells

90 projects
Total cost of projects \$8,609,805
NEO share \$5,657,810

Agricultural

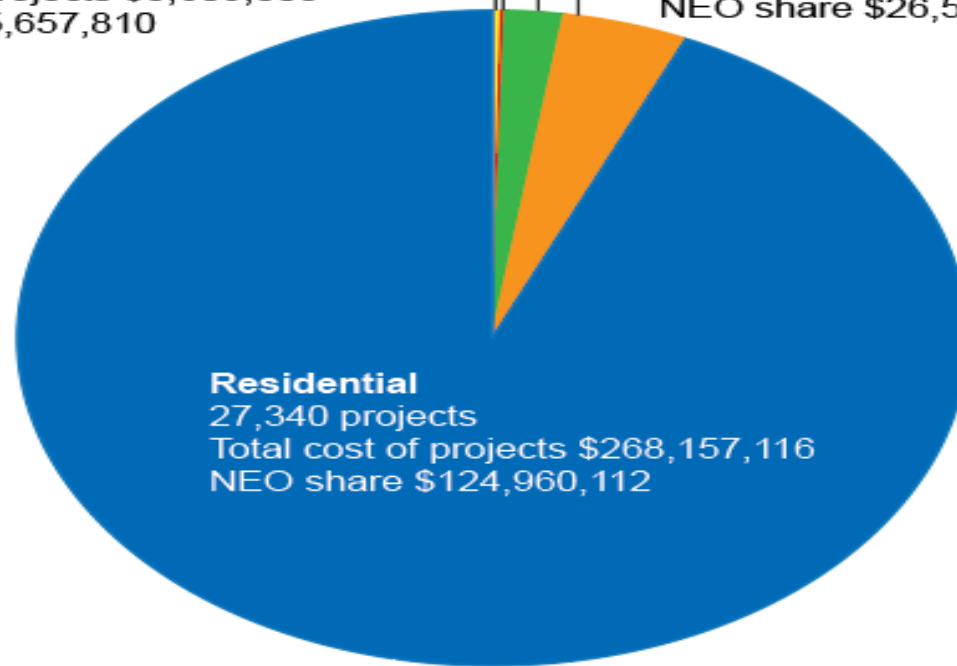
581 projects
Total cost of projects \$11,258,281
NEO share \$5,508,496

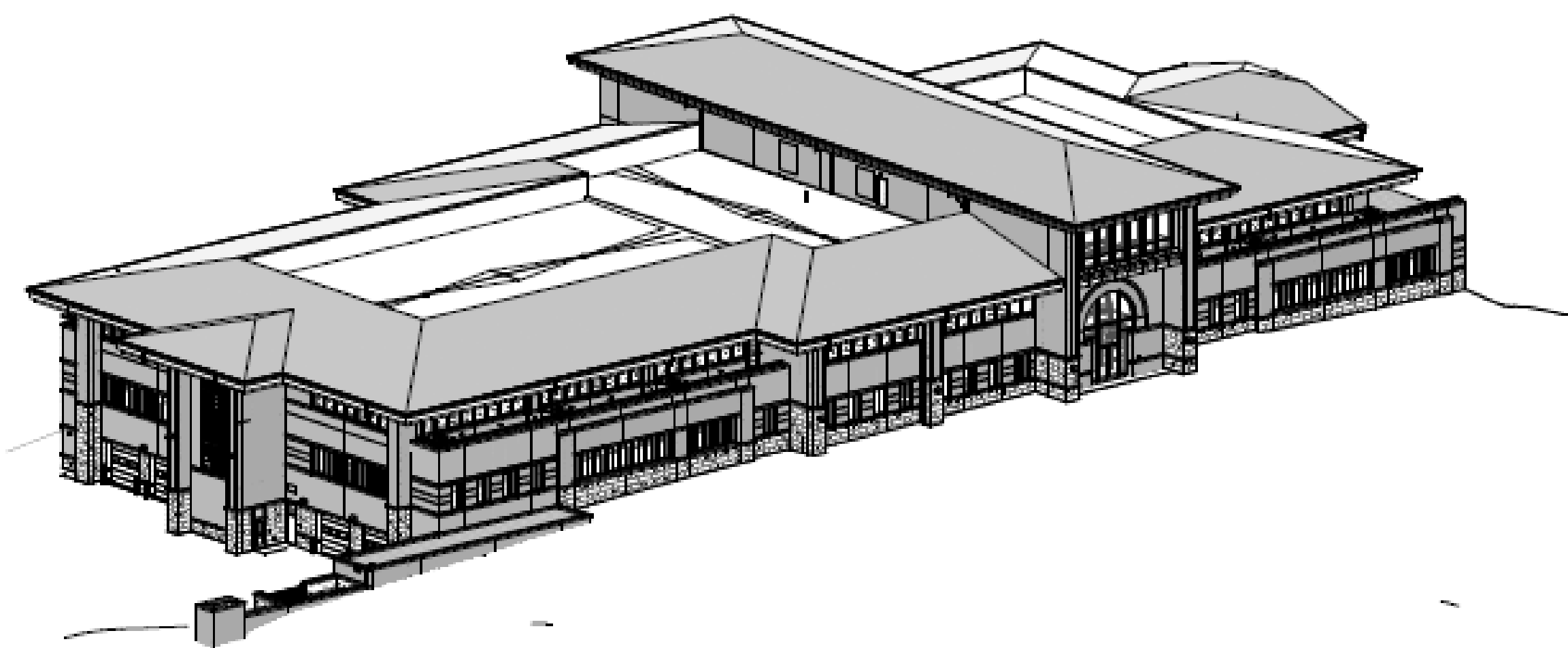
Commercial Industrial/Local Govt.

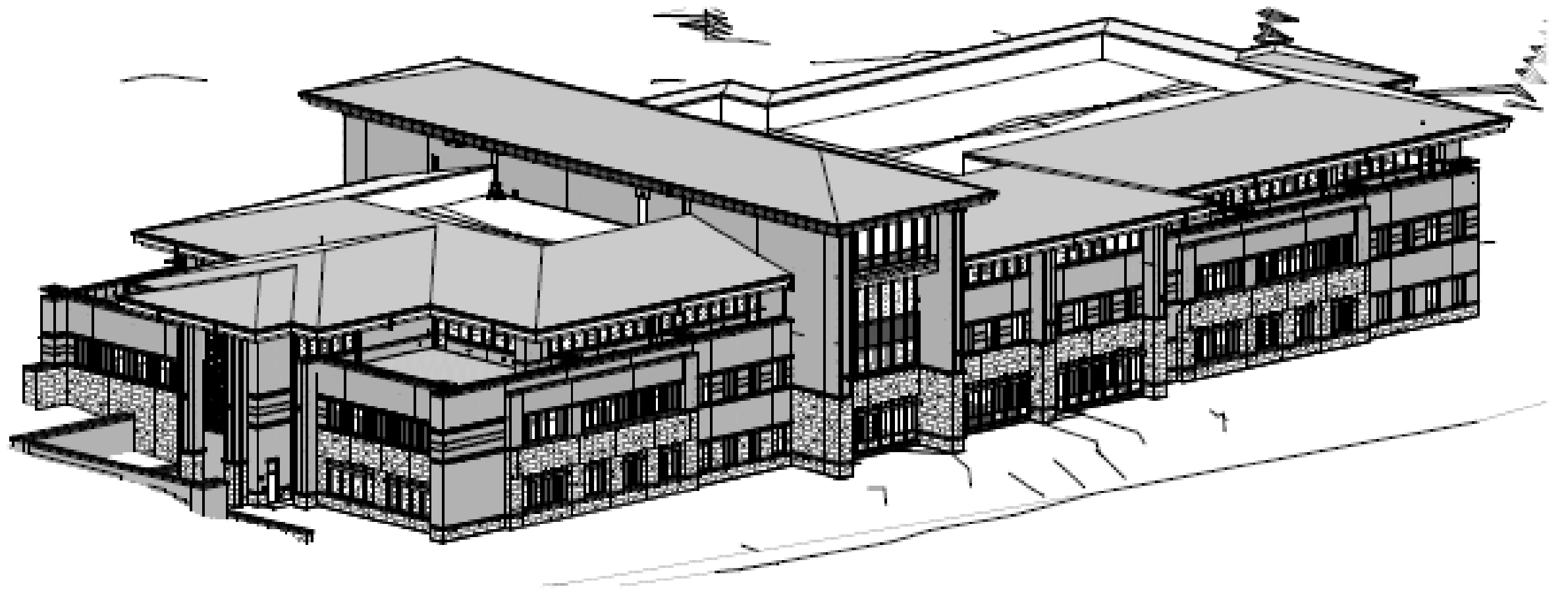
1,248 projects
Total cost of projects \$52,406,660
NEO share \$26,577,467

Residential

27,340 projects
Total cost of projects \$268,157,116
NEO share \$124,960,112









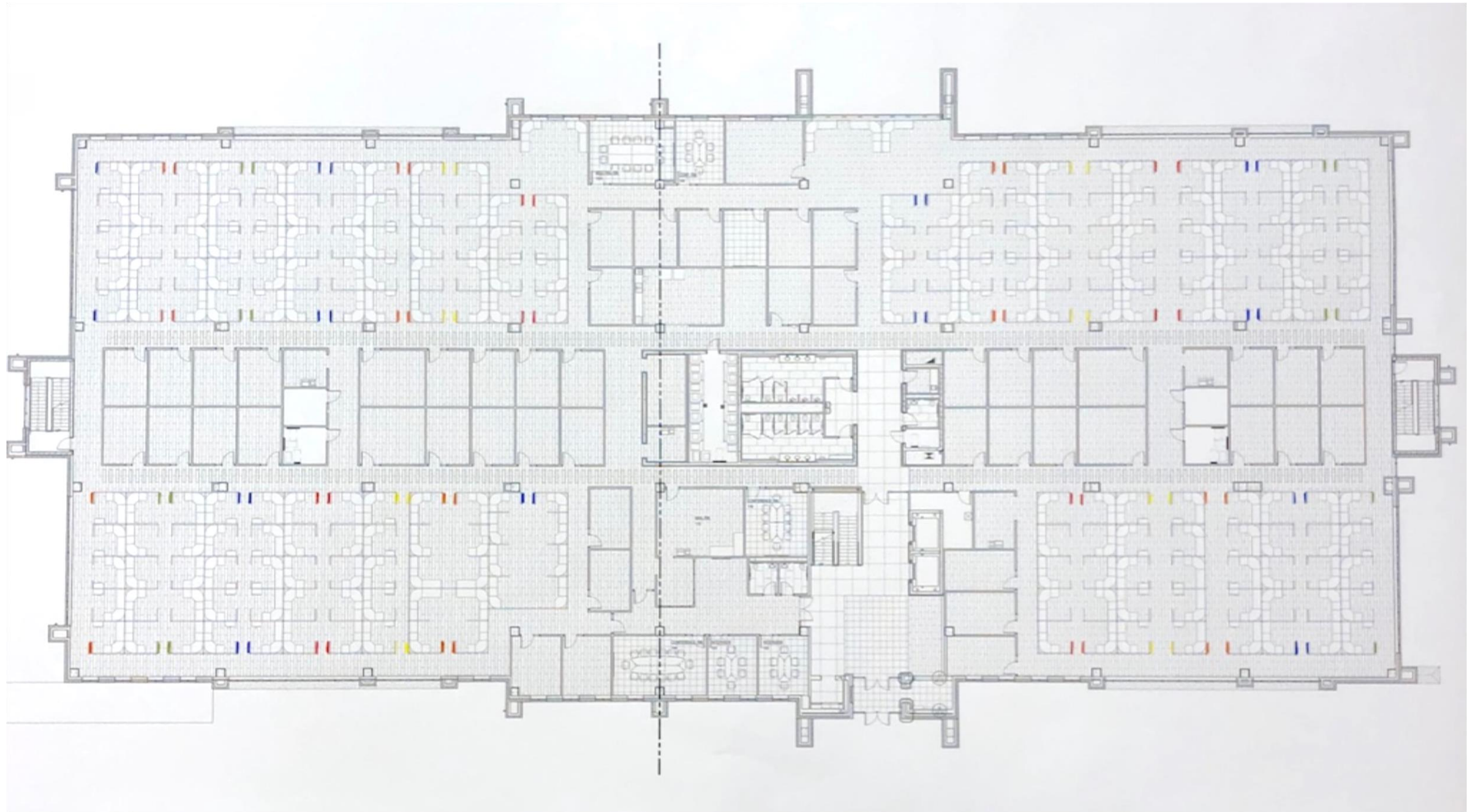
CONSTRUCTION AREA
ROAD CLOSED
HARD HATS BEYOND THIS GATE

SWPPP INFORMATION

THE SWPPP DOCUMENTATION (BINDER AND MAPS) LOCATED INSIDE JOB SITE TRAILER







State Energy Plan

Survey snapshot

Responses and demographics

- Responses – 698
- Largest sector – Residential, 77.27%
 - All other sectors (agriculture, commercial, industrial, residential, transportation) were less than 10%
- County information
 - 79 of 93 counties responded
 - Lancaster and Douglas had the highest number of responses
 - 28 and 24 percent, respectively

Sustainability

What does energy sustainability mean to you?

ANSWER CHOICES	RESPONSES	
Using energy from renewable resources	30.48%	295
Conserving energy for future generations	8.99%	87
Meeting all of Nebraska's energy demand with in-state renewable resources	12.50%	121
Creating energy without harm to the environment	23.04%	223
Keeping energy supply and demand levels even with one another	12.29%	119
Other	12.09%	117
TOTAL		968

[Comments \(149\)](#)

Rank the most important issues in terms of providing energy to Nebraskans

	1	2	3	4	5	TOTAL	WEIGHTED AVERAGE
Cost	6.21% 59	11.89% 113	30.11% 286	26.74% 254	25.05% 238	950	3.53
Environmental Impact	7.17% 69	7.28% 70	12.37% 119	21.10% 203	52.08% 501	962	4.04
Reliability	5.82% 56	5.61% 54	9.66% 93	29.39% 283	49.53% 477	963	4.11
Supply	3.32% 31	10.48% 98	19.89% 186	35.51% 332	30.80% 288	935	3.80
Other	40.00% 60	4.67% 7	9.33% 14	11.33% 17	34.67% 52	150	2.96

[Comments \(79\)](#)

1 = Low, 5 = High

Which energy types support respondents' choice toward sustainability?

- 1) Solar – 82.7%
 - 2) Wind – 77.7%
 - 3) Hydro-electric – 55.3%
 - 4) Geothermal – 54.5%
 - 5) Waste – 39.2%
 - 6) Biofuels – 36.1%
 - 7) Electricity – 35.1%
 - 8) Nuclear – 34.4%
 - 9) Natural Gas – 25.7%
 - 10) Hydrogen – 20.1%
- Rounded to the nearest percent.

Research and Actions

Pick five energy sources Nebraskans should rely on (in order of importance):

- Solar
- Wind
- Electricity
- Hydro-electric
- Geothermal

Based on weighted average

Where should research be directed to provide sustainable energy to Nebraskans?

- 1) Using alternative energy – 4.03%
- 2) Creating energy storage – 3.83%
- 3) Improving existing energy processes – 3.81%
- 4) Finding new sources of energy – 3.16%

Response rate: 964

Rank actions you think make wise energy use:

- 1) Use alternative sources of energy – 3.5% (weighted average)
- 2) Making home or business energy efficiency improvements – 3.49% (weighted average)
- 3) Public education
- 4) Reduce use (ex: doing all errands in one trip with your car)
- 5) Conserve (ex: riding your bike instead of driving your car)

Biggest road block in implementing sustainable energy practices:

Open-ended question – 784 comments

Additional comments on energy issues to consider in revising the State Energy Plan

Open-ended question – 432 comments

Strategic planning

Working vision:

EVERYONE LIVING, WORKING, AND
PLAYING
IN A HEALTHY ENVIRONMENT

WORKING MISSION:

TO PROTECT AND IMPROVE
HUMAN HEALTH, THE
ENVIRONMENT, AND ENERGY
RESOURCES THROUGH

MONITORING

ASSESSING

ENFORCING

EDUCATING

INSPECTING

ASSISTING

PERMITTING

FUNDING

WORKING CORE VALUES

Teamwork communication innovation
commitment integrity

Thank You

Questions