2017 Nebraska Drought THIRA Capability Statements

The following drought capability statements were derived from discussions held at a Threat and Hazard Identification and Risk Assessment (THIRA) workshop held in April 2017 in Kearney, Nebraska. Three scenarios, developed by the National Drought Mitigation Center in cooperation with a group of stakeholders, provided context for workshop participants as they considered impacts and their agency or community's readiness in 16 of the 32 core capabilities identified in the National Preparedness Framework.[1] These capabilities were chosen because drought scenarios stressed them the most.

Scenario descriptions

A drought scenario was modeled from data gleaned from previous droughts. The impacts were drawn from news items and the National Drought Monitor. Three scenarios were developed to represent early drought (year one), a long period of continuous drought (year four), and the end of drought and beginning of recovery (year five).

Using the capability statements

The capability statements set targets that may seem out of reach for some jurisdictions or may not be applicable to the planning of some agencies. However, they represent the capability needed to respond adequately to the scenarios presented. Jurisdictions or agencies are urged to choose one of the three statements to use over time as a measure of how they are progressing toward fully meeting the capability target. For example, of the three capability statements in the area of community resilience, Resource Districts may choose to focus on scenario 3 (Ensure that drought mitigation plans exist in 100% of Nebraska's NRDs and are up to date and coordinated at all levels); while emergency management or a community may focus on scenario 1 (Reduce vulnerability to the 45,000 people by ensuring 100% households have emergency plans and supplies). Once a statement is chosen, a discussion with stakeholders in the community should center on what is needed to meet that capability target. Preliminary ideas about estimated resources from the workshop are included in this document – but these lists will need to be refined/added to by groups working toward the capability target. This list of resources can include planning, training and exercising, people resources, equipment, and organizational issues that are in need of development or enhancement. The next step in applying these results is to plan how these resources can be obtained or achieved over time. Periodic measurement of progress towards achieving the capability target helps the jurisdiction or agency decide when it is time to revisit or revise the scenarios to stress the capability in other ways.

[1] https://www.fema.gov/national-preparedness-goal

Community Resilience

Description: Enable the recognition, understanding, communication of, and planning for risk and empower individuals and communities to make informed risk management decisions necessary to adapt to, withstand, and quickly recover from future incidents.

	Scenario 1	Scenario 2	Scenario 3
Capability statements	Reduce vulnerability to the 45,000 people by ensuring 100% households have emergency plans and supplies.	Improve household and community resilience by implementing a public information campaign related to the drought impacts (in Spanish and English) to the 225,966 people potentially impacted.	Ensure that drought mitigation plans exist in 100% of Nebraska's NRDs and are up to date and coordinated at all levels (organizational, community, region, state, etc.).
Estimated Resources	• Emergency kits • Household emergency plan templates • Training on how to use plans and kits • Resources to procure and distribute plans and kits • Social marketing plan for adoption of plans • Agencies and/or groups taking responsibility for updating and distributing plans and kits	• Pre-crafted messages and materials by public information officers • Data and projections by drought mitigation entities • Media (Print, digital, radio, etc.) • Directory for drought related resources for the public	• Drought mitigation plan templates • Toolkit on how to use templates and implement plans • Social marketing plan to encourage community to plan for major drought events • Planning, exercise, and training. • Drought policies, education, and infrastructure enhancements. • Groups or agencies taking responsibility for ensuring • Linkages with state, federal, and local resources • NRDs • PET Regions • NACO (Nebraska Association of County Officials). • League of Municipalities.

Critical Transportation *Description: Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Reroute traffic on three major roadways within 30 minutes of notification of emergency event.	Repair cracks caused by drought conditions on 455 miles of roadway.	NA
Estimated Resources	• Mobile traffic signs for deployment along affected routes. • Sufficient law enforcement presence on three roadways to assure orderly rerouting. • Cones or barriers ready for immediate deployment in each community in Platte River Basin.	• Funds to pay for road repair. • Sufficient personnel for road repair. • Materials sufficient to repair cracks over 455 miles. • Monitoring of roadways for development of cracks requiring repair.	

Economic Recovery *Description: Return economic and business activities (including food and agriculture) to a healthy state and develop new business and employment opportunities that result in an economically viable community.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Launch social marketing campaigns targeted at farmers and ranchers in "moderate drought" rated areas (as defined by the National Drought Mitigation Center) within 1 week of drought threshold	Minimize agricultural losses in 1,647,000 acres of farmland by replacing livestock, improving range and farmland conditions, and reestablishing wells that have been affected by the drought	Equal or exceed pre-drought tourism and recreation revenue streams (Nebraskaland Days, CWS, Sandhill Crane tourism, State Fair, hunting and fishing, etc.).
Estimated Resources	• National Resources Conservation Service(NRCS) • University of Nebraska Agriculture and Drought Mitigation Departments • Federal, state, and local organizations • Drought Education • Pre-crafted messages, materials, and presentations • Drought planning toolkits designed for farmers and ranchers • Distribution of kits to Nebraska farmers and ranchers	• Soil health programs • Noxious weed prevention and control • Drought Education • Water and Rangeland monitoring and forecasting • Financial funding and aid • Federal, State, and Local Agencies • Chamber of Commerce • Politicians • Farm Service Agencies • Insurance Agencies • Planning, exercise, and training	• Game & Parks • Nebraska Tourism Commission • Chamber of Commerces across the state • Other Federal, State, and Local Agencies

Environmental Response / Health and Safety *Description: Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Enhance stream biological monitoring to include all sites and sources of drinking water along the Platte River Basin (rather than random selection) throughout drought duration.	Increase number of trained fire fighters available for deployment to fire sites in Nebraska by 1% (n=138).	Create a customizable ecosystem restoration plan that prioritizes habitat recovery (native and migratory) and maintains interstate natural habitat requirements to the extent possible.
Estimated Resources	• Enhanced lab capabilities and protocols to handle increased number of chemical analyses. • Nebraska DEQ water division staff. • Local media advisories for drinking water quality within 2 hours of hazard identification.	• Create statewide recruitment, training and retention plan for volunteer firefighters. • Fire school availability and frequency. • Equipment for 138 additional fire fighters.	• Data related to habitat impacted by drought. • Agency charged with planning process. • Drought resistant species list. • Native habitat profile for impacted areas. • Migratory habitat profile for impacted area. • Public participation in prioritization of ecosystem restoration. • Plans for in-stream flow levels to comply with federal or interstate habitat requirements to extent possible.

Fire Management and Suppression *Description: Provide structural, wildland, and specialized firefighting capabilities to manage and suppress fires of all types, kinds, and complexities while protecting the lives, property, and the environment in the affected area.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Conduct sufficient fire management activities to control and suppress a 50,000 acre wild fire.	Conduct sufficient fire management activities to control and suppress at least two 50,000 acre wild fires simultaneously.	Conduct sufficient fire management activities to control and suppress at least two 100,000 acre wild fires simultaneously.
Estimated Resources	• Year round availability of sufficient air drop resources (Single Engine Air Tankers) for rapid deployment anywhere within NE. • Protocols for emergency drawing of sufficient water from affected and surrounding jurisdictions. • Protocols to activate and manage professional and volunteer fire fighting personnel in affected and surrounding jurisdictions through mutual aid agreements. • Training and immediate activation for private landowners and community volunteers to assist with fire breaks and field clearing in a coordinated fashion across all affected jurisdictions.	• Year round availability of sufficient air drop resources (Single Engine Air Tankers) for rapid deployment anywhere within NE. • Protocols for emergency drawing of sufficient water from affected and surrounding jurisdictions. • Protocols to activate and manage professional and volunteer fire fighting personnel in affected and surrounding jurisdictions through mutual aid agreements. • Training and immediate activation for private landowners and community volunteers to assist with fire breaks and field clearing in a coordinated fashion across all affected jurisdictions. • Identification and access to privately-owned tractors and discs for fire suppression.	• Year round availability of sufficient air drop resources (Single Engine Air Tankers) for rapid deployment anywhere within NE. • Protocols for emergency drawing of sufficient water from affected and surrounding jurisdictions. • Protocols to activate and manage professional and volunteer fire fighting personnel in affected and surrounding jurisdictions through mutual aid agreements. • Training and immediate activation for private landowners and community volunteers to assist with fire breaks and field clearing in a coordinated fashion across all affected jurisdictions.

	• Identification and access to privately-owned tractors and discs for fire suppression. • Mutual aid agreements in place for cross-county cooperation. • Access to multiple wildland vehicles with up to 700 gallon capacities. • Emergency sheltering for up to 2,000 displaced people and pets in surrounding communities. • Temporary housing for up to 2 months for 400 displaced people, as well as pets. • Protocols for immediate closing of roads within a 50 mile perimeter around fire points for visibility and safety.	• Mutual aid agreements in place for cross-county and state cooperation. • Access to multiple wildland vehicles with up to 700 gallon capacities. • Emergency sheltering for up to 2,000 displaced people and pets in surrounding communities. • Temporary housing for up to 2 months for 800 displaced people, as well as pets. • Plans to coordinate and implement controlled burns as needed around affected areas. • Protocols for immediate closing of roads within a 50 mile perimeter around fire points for visibility and safety.	• Identification and access to privately-owned tractors and discs for fire suppression. • Mutual aid agreements in place for cross-county and state cooperation. • Access to multiple wildland vehicles with up to 700 gallon capacities. • Emergency sheltering for up to 2,000 displaced people and pets in surrounding communities. • Temporary housing for up to 2 months for 1,200 displaced people, as well as pets. • Plans to coordinate and implement controlled burns as needed around affected areas. • Protocols for immediate closing of roads within a 50 mile perimeter around fire points for visibility and safety.

Health and Social Services *Description: Restore and improve health and social services capabilities and networks to promote the resilience, independence, health (including behavioral health), and well-being of the whole community.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Deliver public messaging via multiple mediums to 50,000 people in Spanish and English addressing positive, protective actions community members can take to lessen negative health impacts of drought (e.g., heat; smoke; cooling centers).	Activate community cooling centers to serve 12,000 people.	Deploy up to 500 disaster psychological first aid (PFA) trained community members to support community resiliency efforts in communities.
Estimated Resources	• Prepared public messages with health content. • Social marketing plan for message delivery. • Public health subject matter experts and spokespersons. • Translators and interpreters.	• Generators. • Air conditioning. • Chairs and furniture to accommodate persons with functional and physical disabilities. • Personnel to staff cooling centers. • Healthcare for heat related issues. • Security for cooling centers. • Plans for cooling center location/logistics/usage.	• Disaster PFA trainers. • Disaster PFA training sites. • Volunteers willing to be trained in PFA.

Housing *Description: Implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Activate cooling shelters with necessary support and functional needs services in affected communities to serve up to 12,000 people throughout periods of excessive heat.	Temporary housing for up to 1,600 people for 2 months, and support for safe in-house sheltering for communities affected by adverse environmental conditions.	Temporary housing for up to 2,400 people for 2 months, and support for safe in-house sheltering for communities affected by adverse environmental conditions as well as responders.
Estimated Resources	• Accessible, locally managed cooling centers with trained staff/volunteers and sufficient functional needs supports for vulnerable populations. • Sufficient transportation to cooling shelters for those without vehicles.	• Sufficient temporary housing facilities with all necessary support and functional needs services for 1,600 people for up to 2 months. • Sufficient generators and other electrical capacity needs to manage peak loads in communities throughout the state. • Plans for livestock management in affected areas. • Plans and resources to deliver water to affected households for domestic use. • Regular inspection of communities for contamination, disease vector threats and other environmental hazards.	• Sufficient temporary housing facilities with all necessary support and functional needs services for 2,400 people for up to 2 months.

Infrastructure Systems *Description: Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Reduce stress on infrastructure by reducing non-agriculture water use by 1% (e.g. Scottsbluff average 3.8 million gal/day reduced to 3.762 million gal/day).	Reduce water usage by all sectors (residential, commercial, and industrial/agricultural) by 1 % from daily average usage the previous year.	Reduce usage of electricity by all sectors (residential, commercial, and industrial/agricultural) by 1 % from daily average usage the previous year.
Estimated Resources	• Identify policies/ordinances needed to enforce reduced water usage. • Implement education and policies to reduce use of water and electricity by all people/sectors in affected areas. • Identify financial incentives for water conservation. • Ensure metering efforts are up to date. • Drill and cap additional wells for use as needed. • Identify additional water storage capacity. • Diversify sources of electricity in communities.	• Set scalable target water usage levels. • Identify water metering/measurement mechanisms for each sector. • Implement social marketing plan.	• Set scalable target electrical usage for each resident, commercial and industrial user based on previous year's data. • Create community plan to diversify sources of electrical power including use of alternative sources (e.g., solar, wind, etc.). • Plan and implement social marketing plan to reduce electricity use.

Logistics and Supply Chain Management *Description: Deliver essential commodities, equipment, and services in support of impacted communities and survivors, to include emergency power and fuel support, as well as the coordination of access to community staples. Synchronize logistics capabilities and enable the restoration of impacted supply chains.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Ensure hay is available to feed 129,250 cattle in the Panhandle of Nebraska for 150 days.	Deliver 50,000 gallons of potable water a day for 14 days to impacted areas.	Drill or re-drill public and domestic wells used for potable water within one week of discovering problems.
Estimated Resources	• Estimates of hay needs for each cattle feeder in the Panhandle. • Estimates and location of hay availability. • Identified transport for hay to reach cattle feeders.	• Agreements in place for potable water. • Plan for distribution of potable water to residents, schools, and healthcare facilities. • Trained logistics team members and water distribution personnel. • Security for distribution sites. • Distribution instructions in Spanish, Vietnamese and English.	• Sufficient # licensed well drillers to meet demand. • Plan to prioritize non-municipal well drilling if demand exceeds qualified contractor availability. • Information packets for well owners on potable water and testing.

Mass Care Services *Description: Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Provide emergency sheltering and evacuation assistance for local vulnerable population (2,000 people) up to 2 weeks.	Provide emergency sheltering and evacuation assistance for local and regional vulnerable populations (5,000 people) up to 2 weeks.	Provide emergency sheltering and evacuation assistance for local and regional vulnerable populations (15,000 people) up to 2 weeks.
Estimated Resources	• Scalable plans, protocols and agreements for emergency sheltering activation and operations. • Scalable plans, protocols and agreements for coordinated and sustained delivery of necessary food and potable water to shelter areas within 1 hour of activation. • Assessment and estimate of local vulnerable populations in need of mass care services, including medical, functional, transportation needs, and pet care.	• Scalable plans, protocols and agreements foremergency sheltering activation and operations. • Scalable plans, protocols and agreements for coordinated and sustained delivery of necessary food and potable water to shelter areas within 1 hour of activation. • Assessment and estimate of local vulnerable populations in need of mass care services, including medical, functional, transportation needs, and pet care.	• Scalable plans, protocols and agreements for emergency sheltering activation and operations. • Scalable plans, protocols and agreements for coordinated and sustained delivery of necessary food and potable water to shelter areas within 1 hour of activation. • Assessment and estimate of local vulnerable populations in need of mass care services, including medical, functional, transportation needs, and pet care.

Natural and Cultural Resources *Description: Protect natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore them consistent with post-disaster community priorities and best practices and in compliance with applicable environmental and historic preservation laws and executive orders.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Establish alternative irrigation sources and crop selections for 300,000 acres of farmland that depend on irrigation from North Platte River.	Ensure soil conservation and erosion control is implemented across ~8,082,304 acres of drought effected area.	Establish and ensure water conservation plans and policies are enforced statewide.
Estimated Resources	• Water supply monitoring and forecasting • Water transportation (to areas where drought has impacted water quality and quantity to extremes) • Regulations for water use (enforced at local level) • Drought education (educate public on water conservation and update them with modeling and projections) • Water conservation plans among all affected communities (Community involvement and mitigation to establish plans) • Funding	• Soil erosion control practices and monitoring • Drought and erosion control education • Funding	• Water testing • Water supply monitoring and forecasting • Water transportation (to areas where drought has impacted water quality and quantity to extremes). • Regulations for water use (enforced at local level with local ordinances in place) • Drought education (educate public on water conservation and update them with modeling and projections) • Water conservation plans among all affected communities (Community involvement and mitigation to establish plans) • Funding

Operational Coordination *Description: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Initiate incident command to mobilize critical resources for immediate hazards within 1 hour of incident. Establish regular monitoring of local conditions in affected communities and regular communication networks to local and state authorities.	Set up and sustain unified command for up to 3 months. Daily monitoring of emerging drought conditions with information sent to unified command structures locally daily or as conditions change.	Activate Type III incident command team to coordinate all local, state and federal response based on incident command principles for 30 days.
Estimated Resources	• Reinforced partnerships and communications with critical stakeholders at local, regional and state levels. • Established monitoring and observation protocols based on pre-identified criteria and priorities. • Established lines of communications between critical stakeholders in the private sector and community with responding agencies.	• Fully-staffed EOC or NEMA watch center to monitor conditions. • Local and state positions ready to staff unified command at both levels. • Drought expertise in the Watch Center. • Feedback loops sufficient to get information to the Watch Center or command as conditions change. • Stream, water, fire and heat monitoring systems.	• Fully-staffed EOC or NEMA watch center. • Local and state personnel trained in incident command • Local and state personnel ready to staff Type III incident command team • Logistical support for a type III team • Equipment for a type III team

Planning *Description: Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or tactical-level approaches to meet defined objectives.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Local response plans include pre-identified thresholds to trigger mutual aid agreements.	Local and state plans include thresholds to trigger state and national assistance for long term recovery.	State plans include pre-identified thresholds for response in multiple areas of the state simultaneously
Estimated Resources	• Identified thresholds across necessary local and state agencies to trigger interjurisdictional, state, and federal assistance. • Agreements and protocols with law enforcement and other agencies to support necessary response activities.	• Identified thresholds across necessary local and state agencies to trigger interjurisdictional, state, and federal assistance. • Agreements and protocols with law enforcement and other agencies to support necessary response activities.	• Identified thresholds across necessary local and state agencies to trigger interjurisdictional, state, and federal assistance. • Agreements and protocols with law enforcement and other agencies to support necessary response activities.

Public Health, Healthcare and Emergency Medical Services *Description: Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical, and behavioral health support, and products to all affected populations.*			
	Scenario 1	**Scenario 2**	**Scenario 3**
Capability statements	Within 8 hour notice of a forecasted dangerously high heat index, open public cooling centers in every major community (population 1,000 +) throughout the severe heat affected area	Implement water and air quality testing while tracking (map, monitor and test for) cases of West Nile Virus in insects, animals, and humans across the State of Nebraska.	Ensure that excessive heat plans exist in 100% of Nebraska's Hospitals, care centers, schools, and are up to date and coordinated at all levels (organizational, community, region, state, etc.).
Estimated Resources	• Work with communities to identify places to open public cooling stations • Cooling Center Finder tool developed and housed on the web • Media communication of how to locate a cooling station near you • Identification of Hazard Thresholds from stakeholders. • National Weather Service. • Forecasting and transparent communication of health hazards.	• Mosquito Traps and Monitoring Systems. • Public Health Departments and their labs. • Water Testing Kits • Air quality testing kits • Funding for testing and hazard mitigation.	• Establish excessive heat watch and warning protocols and plans in every hospital, public health department, care facilities, EMS. • Identification of Hazard Thresholds from stakeholders. • National Weather Service. • Forecasting and transparent communication of health hazards. • Educational materials for distribution. • Cooperative Agreements b/n local entities. • Funding for testing and hazard mitigation.

Public Information and Warning

Description: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

	Scenario 1	Scenario 2	Scenario 3
Capability statements	Deliver consistent drought and heat-related messages to 16,000 households in English and Spanish within 4 hours of information release.	Implement unified area command to ensure joint information centers are coordinated for up to one year during a slow moving disaster.	Deliver consistent drought and heat-related messages to 300,000 households for six months in English, Spanish and Vietnamese.
Estimated Resources	• Prepared public information messages related to the following: burn bans; local ordinances; West Nile; water usage/conservation; heat related issues for humans; heat related issues for pets and livestock. • Spanish versions of prepared messages. • Training for message developers on crisis communication strategies. • Training for spokespeople. • Identification of local ordinances pertinent to burn bans, epidemics, and water usage/conservation. • Agreements in place with media for urgent and persistent message delivery.	• Personnel trained in unified area command. • Staffing for prolonged unified area command. • Prepared public information messages in English, Spanish and Vietnamese. • Prepared message delivery strategies geared toward reaching vulnerable populations. • Agreements in place to access subject matter experts in drought forecasting, public health, environmental health and safety, and well health.	• Prepared messages related to drought, West Nile virus, heat impacts and actions, and mental health/stress issues. • Prepared messages geared toward public, vulnerable populations and response entities. • Training for message developers and delivers. • Agreements in place with specialty media outlets and interpreters/translators. • Social media platforms in place, tested and familiar to populations that are target of the messages. • Subject matter experts involved in message mapping (e.g., public health, animal health, cultural brokers, etc.).

	• Social media platforms identified, tested and publicized for message delivery. • Mass public notification system in place or agreements in place for use of existing mass notification systems (e.g., school systems).		

Situational Assessment *Description: Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.*	
	Scenario 1 – 2 – 3 (similar capabilities required across scenarios)
Capability statements (capability would occur in scenario one, and would continue to expand to other regions as drought intensifies)	Upon drought monitoring moving from "moderate drought" rating to "severe drought" rating (as defined by the National Drought Mitigation Center), regional drought subject matter expert (SME) teams will meet within one month to help address local level sector responses that will also provide information up to the State of Nebraska Governor's CARC (Climate Assessment Response Committee). Meetings would continue quarterly (and more frequently as drought intensifies) until drought subsides and drought impacts are minimized.
Estimated Resources	• Established communication protocols to disseminate needed information and coordinate decision making among necessary parties. • Local Stakeholders in affected area (farmers, ranchers, city water departments, local public officials, local industry representatives, etc.). • State Agencies (State Watch Center, DHHS, Game and Parks, Tourism, NDEQ, etc.). • Federal Agencies (Dept. of Ag, etc.). • Local Agencies and Health Departments. • Well Drillers. • Water Quality Experts.