State of Nebraska CTP Business Plan

FY2017 Update

May 2017

NEBRASKA
DEPT. OF NATURAL RESOURCES

Floodplain Management Section

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Table of Contents

Overview of NeDNR Vision 1
Risk MAP Goals & NeDNR Plan 1
Deliver High-Quality Risk Data 1
Increased Awareness of Flood Risk 2
Promote Community Mitigation Action 4
COMS Program 4
Goals and Objectives 4
Ongoing Projects 5
State Hazard Mitigation Plan Alignment 6
NeDNR Capabilities 6
Project Prioritization 7

Section 1. Project Sequencing Figures:

Proposed FY2017 Projects 1
Proposed FY2018 Projects 2
Proposed FY2019 Projects 3
Proposed FY2020 Projects 4
Proposed FY2021 Projects 5
Proposed FY2022 Projects 6
Engaged Watersheds FY2026 7
Regulatory FY2026 Products 8

Section 2. Watershed Summaries:

Upper Elkhorn, North Fork Elkhorn, Lower Elkhorn, Logan 1
Middle North Platte – Scotts Bluff, Lower North Platte, Lower South Platte 10
Lewis and Clark Lake 16
Upper Big Blue, Middle Big Blue, West Fork Big Blue, Turkey, Upper Little Blue 19
Little Nemaha, South Fork Big Nemaha, Big Nemaha 28
Keg-Weeping Water 33
Salt 36
County PIRs: Box Butte, Sheridan 39
Middle Platte - Buffalo, Wood, Middle Platte - Prairie 42
Upper Republican, Frenchman, Stinking Water, Red Willow, Medicine 49
Lower Platte - Shell, Lower Platte 55

Section 3. Key Decision Point Summary:

NeDNR Key Decision Point Summary Table 1

Overview of NeDNR Vision

The Nebraska Department of Natural Resources coordinates floodplain management for the entire state. With authority designated by the Nebraska Legislature, NeDNR provides high quality, science-based data and information to communities, individuals, and state agencies to reduce risk from flooding. NeDNR's vision includes:

- Identifying flood risk for every community in the state,
- Offering technical assistance to every community, state agency, and stakeholder with an interest in reducing risk from flooding to improve floodplain management programs, and
- Encouraging National Flood Insurance Program participation.

To further this vision, NeDNR actively seeks projects that directly reduce flood risk to human lives and property as well as outreach opportunities that engage communities on flood risk topics.

Risk MAP Goals & NeDNR Plan

NeDNR's plans in the upcoming fiscal years closely align with the Risk MAP goals. The following Risk MAP goals compliment the Department's desire to provide the best possible flood hazard data and technical assistance that promote strong floodplain management programs that increase public awareness of local flood risks. The ultimate goal is to see communities take action to reduce flood risk to life and property.

Deliver High-Quality Risk Data

Flood maps are essential to the local flood administrator's job. Maps allow them to identify flood risk and to communicate flood risk to their communities. Having high-quality data gives both FEMA and the administrators more creditability in identifying flood risk and communicating risk to the public.

Nebraska has a low population density, so basic studies make up the majority of the state. To make these studies high-quality, it is important to use LiDAR data for the topography. NeDNR has made the acquisition of high quality elevation data a priority and plans to have LiDAR for the entire state by February 28, 2018.

Nebraska streams and rivers rarely follow political boundaries and land use decisions in floodplains routinely affect neighbors upstream and downstream. Studying flood hazards at a watershed level prepares communities and property owners to collaborate to make better risk-informed decisions. Watersheds in Nebraska provide challenges often due to their immense size which causes them to span over multiple natural

resources district, county, and city boundaries. NeDNR aims to integrate the watershed study approach into our Risk MAP projects to account for the challenges as well as the opportunities for partnerships and synergies.

NeDNR continues to do much of the mapping and engineering in house, which is an advantage because of the established relationship with local administrators. NeDNR plans to utilize experienced engineers on staff to complete the Risk MAP projects by using established hydrology and hydraulics standards as well as floodplain mapping techniques. In addition, NeDNR also provides technical assistance with flood hazard data to local, state and federal agencies for floodplain management and permitting. Communities use this flood data when creating regulations; banks and insurance agents use it to properly rate flood insurance policies; and individuals use it to make better decisions about mitigating their own flood risk.

In addition to leveraging LiDAR, NeDNR also utilizes their Nebraska Flood Analysis Calculation Tool (NFACT) for Risk MAP projects with basic studies. The tool is also used for providing base flood elevations (BFEs) to local, state and federal agencies. NFACT recently went through a significant update to allow it to be used in ESRI's ArcGIS 10.3. The update started in 2015 and was completed in 2016. The tool is now available to anyone that downloads ESRI's ArcHydro tools.

Increased Awareness of Flood Risk

While Risk MAP data development process occurs in various watersheds, NeDNR plans to capitalize on increased community engagement by hosting flood risk workshops. These workshops will prepare local floodplain administrators, community officials, NRD staff, and others to understand and better communicate flood risk to their residents, business owners, and elected officials. The workshops will cover an overview of flood risk, how we address it, and how everyone plays a role in reducing risk in Nebraska communities. We plan to host these workshops in locations that could benefit from the workshop over the course of the next four fiscal years.

Flood risk products provide communities with expanded datasets of information that can help a homeowner, business owner, developer, or homebuilder make better decisions about a building or property. NeDNR will actively seek ways to improve flood risk products and encourage community use of the products. NeDNR will also work one-on-one with a community to find the best applications for flood risk products in their jurisdiction. The Department has found useful opportunities for the products in the past and aims to get communities to add them to their repertoire. Flood risk products may be used in public open houses, when requested by the community, to help property owners understand flood risk, flood insurance, and the Risk MAP process.

NeDNR will continue to help communities understand the data displayed in Risk MAP products and enhance local knowledge of using the data to make better land use decisions. Continual engagement on flood risk reduction will help local officials like building inspectors, public works directors, planners, and emergency managers have the tools for the best possible floodplain management program. NeDNR provides technical assistance to every community in the state on a wide array of floodplain management topics. NeDNR also participates in local hazard mitigation plans, which presents an opportunity for conversation with local officials in utilizing Risk MAP products to enhance mitigation projects and identify new ones.

During the upcoming Risk MAP projects, NeDNR will introduce a new engagement tool in the more floodprone communities. Community working groups will be established in interested areas and will serve as a local implementing committee. The working groups will consist of community officials, interested business leaders, and residents impacted by flood risk, as well as any other member the community would like to have participate. NeDNR will utilize the working groups to be the liaisons to the whole community and will help take ownership of the Risk MAP project. This enhanced engagement activity will spur more action to reduce flood risk.

Existing partnerships like Silver Jackets and working relationships with the Nebraska Emergency Management Agency help facilitate flood risk communication. NeDNR will continue to be an active partner with these entities and organizations to promote mitigation actions. NeDNR will also tie in activities funded by the Community Outreach and Mitigation Strategies (COMS) program into Risk MAP projects. While our COMS program focuses on the entire state, we aim to leverage the data collected and the focus provided on deployed watersheds to move mitigation projects along. Increased attention on flood risk will help community officials gain support from political leadership to implement projects.

NeDNR will also pursue successful community meetings to ensure that the flood hazard information is being accurately reflected and that the community members understand the flood risk. Discovery meetings will seek input on local flood conditions, needs of communities, and gaps in data. The Flood Risk Review meeting will present the new engineering, giving communities a chance to comment and review draft data before the preliminary maps are created. Flood risk workshops will provide communities with information about non-regulatory products, how to use them, and identifying ways to reduce loss of life and property from floods. Consultation Coordination Officers (CCO) meetings will help community officials understand the mapping process and identify areas of concern. The resilience meeting will help the watershed stakeholders use their

new risk information for flood risk reduction. Community working groups, if engaged, will participate in organizing, leading, and facilitating many of the community meetings.

Promote Community Mitigation Action

Throughout our Risk MAP projects, NeDNR will work with communities to identify mitigation actions that can be taken using the new flood hazard data. NeDNR will actively support projects that contribute a measurable risk reduction to properties in the state. Where Risk MAP data can influence a local hazard mitigation plan, NeDNR will work with the plan sponsor, consultant, and NEMA to incorporate new data into plans. We will also continue to provide technical assistance on a wide range of topics including floodplain management, mitigation projects, higher regulatory standards, and map data interpretation.

Working with mitigation planning will help us accomplish our COMS goals and objectives of helping communities understand the entire life-cycle of risk reduction. This includes the benefits of the risk reduction projects to the actual implementation. Planning efforts offer prime opportunities to engage communities individually on their projects.

COMS Program

Goals and Objectives

NeDNR's goal is to provide the best possible flood hazard data and help advance risk reduction projects in Nebraska communities. NeDNR aims to support this goal through our COMS program. We plan to help communities understand and implement risk reduction projects in the state by focusing on the following objectives:

- Why flood risk is real and why a community should focus on reducing that risk
- What kind of risk reduction projects achieve a community's goals
- Where best to implement identified projects
- How to implement those projects

We address the first objective by providing information and data on flood risk in a variety of formats. We plan to conduct flood risk workshops in deployed watersheds to help communities and individuals better understand flood risk. We also help provide risk information through newsletters, project updates, presentations at workshops/conferences, and other community engagement opportunities. NeDNR plans on utilizing FEMA's CERC contractor to help create, review, and disseminate the materials for risk workshops, Risk MAP meetings, and other communication products.

We plan to help communities understand the various risk reduction methods available by communicating best practices, examples from other communities, and higher regulatory standards that may reduce future risk in new development. Hazard mitigation plan processes and participation in CRS provide ideal opportunities to discuss these items. We also will work individually with communities to strategize about the best risk reduction solutions for their economic, political, and environmental situations.

NeDNR also plans to provide data to communities on where to best implement projects that they've identified. Every community and their flood risk is different and local solutions offer the best chance for success. We will help communities develop data on where risk reduction projects are most needed, such as vulnerable population areas, low-income areas, redevelopment locations, and new growth areas.

Lastly, NeDNR plans to help communities who are ready to implement projects understand how best to do that. We will work with any community on project development from benefit-cost analysis, funding opportunities, data collection, community capability development, project evaluations, and any other item that will help implement risk reduction projects.

Ongoing Projects

Based on prior COMS projects, NeDNR has identified new areas of engagement with regard to flood risk. A previous project examined comprehensive plans and land use decision making throughout the state, and it found that technical assistance needs exist with communities on basing long-term land use decisions on flood risk. There is a need to enhance comprehensive plans with better flood risk information, improved goals to reduce future flood risk, and appropriate actions and policies that a community can implement to encourage flood-aware decision making. NeDNR will add this technical assistance element to its on-going community engagement efforts and will ensure that the planning community is well-versed in floodplain management.

Another previous COMS project focused on creating a demographic profile of populations of Nebraskans who live in flood hazard areas. The project used Census data, digital flood data, and Risk MAP project data to identify any trends among those who live in floodplains versus those who don't. Two major trends emerged: housing units in floodplains are disproportionately rental units and a much higher percentage of people in floodplains identify as Hispanic or Latino. This conclusion leads NeDNR to look at better assisting communities in their outreach to residents and businesses. Many communities will need Spanish-language resources and some will need to engage the renter populations on understanding flood risk and flood insurance. We hope to engage the COMS provider in developing additional community resources.

As we discuss mitigation with communities across the state, we often point to the City of Beatrice as a leader in reducing risk in their community. Over the past 40 years, the city has continually acquired floodprone land using both city and federal funds. In 2015, the city saw significant flooding and because of their prior mitigation efforts experienced very few flood losses. We would like to engage the CERC provider in completing a loss avoidance study for the buyout projects that have happened in Beatrice. Having this information, particularly in an easily understood format, will help other communities see the benefit of mitigation and incentivize them to take action.

State Hazard Mitigation Plan Alignment

The Nebraska State Hazard Mitigation Plan (SHMP) contains the following flood mitigation goals:

1. Reduce or eliminate long term flood risk to human life
2. Reduce or eliminate long term flood risk to property and/or the environment
3. Promote public awareness of flooding hazards and post-flooding response
4. Provide technical assistance to communities, state agencies, and federal agencies to assist with identification of flood hazards, and mitigation opportunities

This business plan adequately addresses and remains in line with the overall State of Nebraska flood mitigation goals. We aim, through flood hazard mapping and community engagement, to help the state meet these goals and objectives. NeDNR maintains a strong relationship with the Nebraska Emergency Management Agency on the SHMP and will utilize any new data on flood hazards for the update of the plan starting in FY17. NeDNR will actively integrate the previous COMS project data, Risk MAP information, and other available data as part of the plan update.

Additionally, the SHMP considers flood risk reduction projects identified in local Hazard Mitigation Plans (HMPs). This business plan aligns well with those community-identified needs. For example, most counties included a mitigation strategy for protecting critical facilities. Additionally, most counties included language such as “maintain compliance with NFIP,” with which NeDNR helps by providing technical assistance. Other local HMP mitigation actions that NeDNR plans to assist in include enhancing emergency management, acquiring high risk infrastructure, acquiring new floodplain data, enhancing floodplain regulations, participating in CRS, dam projects, and other flood control projects.

NeDNR Capabilities

NeDNR has statutory authority for coordinating all floodplain management matters including floodplain mapping, flood mitigation programs, and technical assistance. NeDNR is responsible for identifying and delineating floodplains and floodways in the state. NeDNR provides state coordination for the National Flood Insurance Program and for the Flood Mitigation Assistance grant program. And, NeDNR is responsible for floodplain management technical assistance to local, state, and federal agencies.

NeDNR's Floodplain Management section comprises 14 professional positions that span experience in engineering, planning, outreach, GIS, and hazard mitigation. 11 work with flood hazard data development and engineering and mapping, and 3 primarily help communities understand, manage, and reduce their flood risk.

Project Prioritization

NeDNR understands the limited resources available for Risk MAP projects across the country and will actively seek to prioritize Nebraska projects based on three main qualities. First, we will assess the leverage data available for a watershed to see where we can extend limited FEMA resources. Second, we will work with communities to understand their own flood risk reduction and floodplain management needs to evaluate the best possible implementation of Risk MAP projects. Third, we will ensure our projects can be done with the staff capacity at NeDNR. If funds were available, however, we would secure contracts with consulting firms for some Risk MAP projects in order to provide the best possible data to Nebraska communities.

The following sections provide a road map for NeDNR's proposed projects from Fiscal Year 2018 through Fiscal Year 2022 with the Regulatory Process in these watersheds being completed by 2027. The first section provides a series of figures showing the proposed projects. The second section provides project fact sheets, tables breaking down each watershed project with the key decision points outlined, and a table with the watershed facts including leverage and NVUE. The third and last section provides a table with a breakdown of KDP, Fiscal Year, and project.

Section 1. Proposed Project Figures
FY2018 – FY2022

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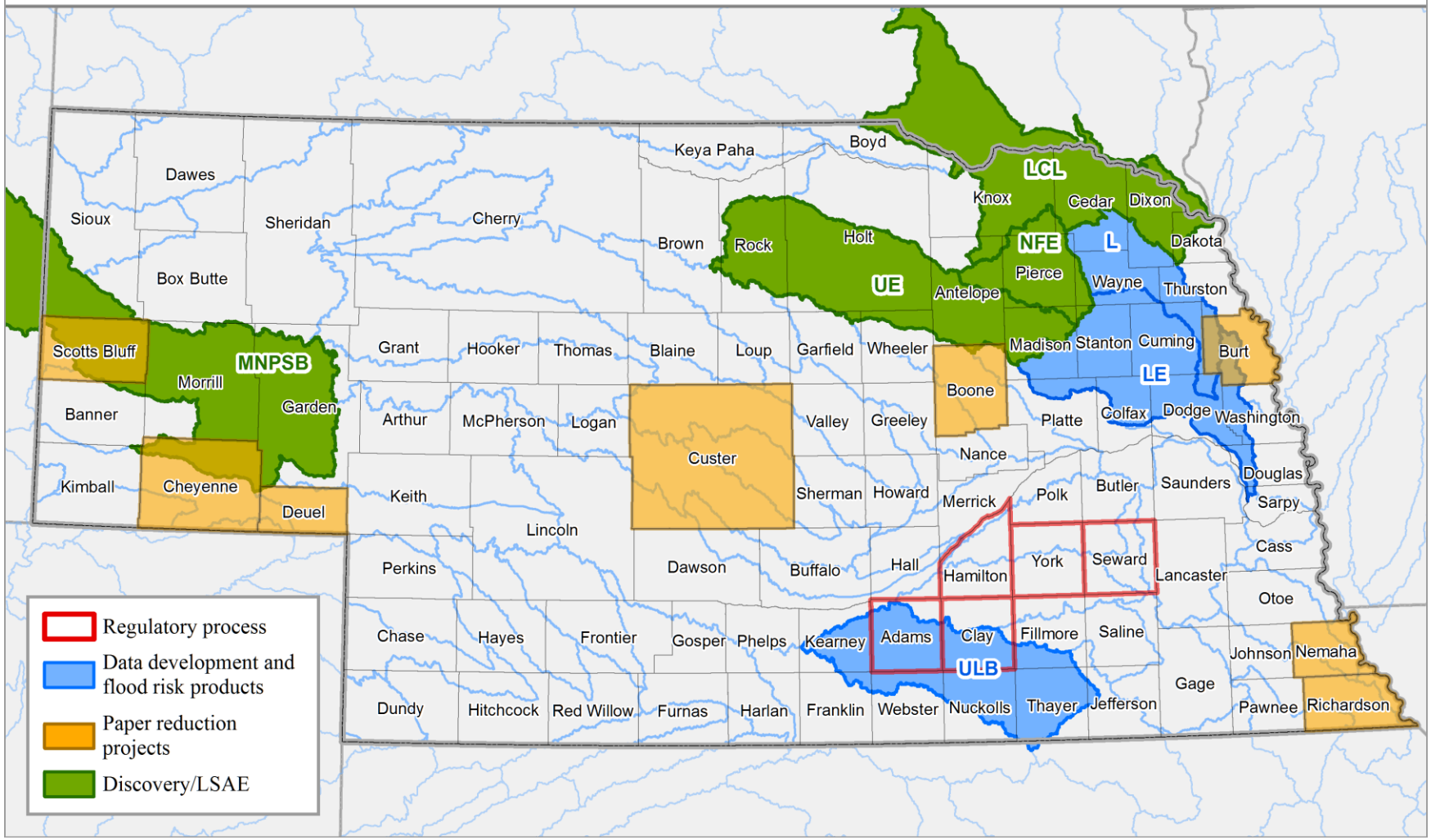
FY2017 CTP Business Plan
Proposed FY2017 Projects



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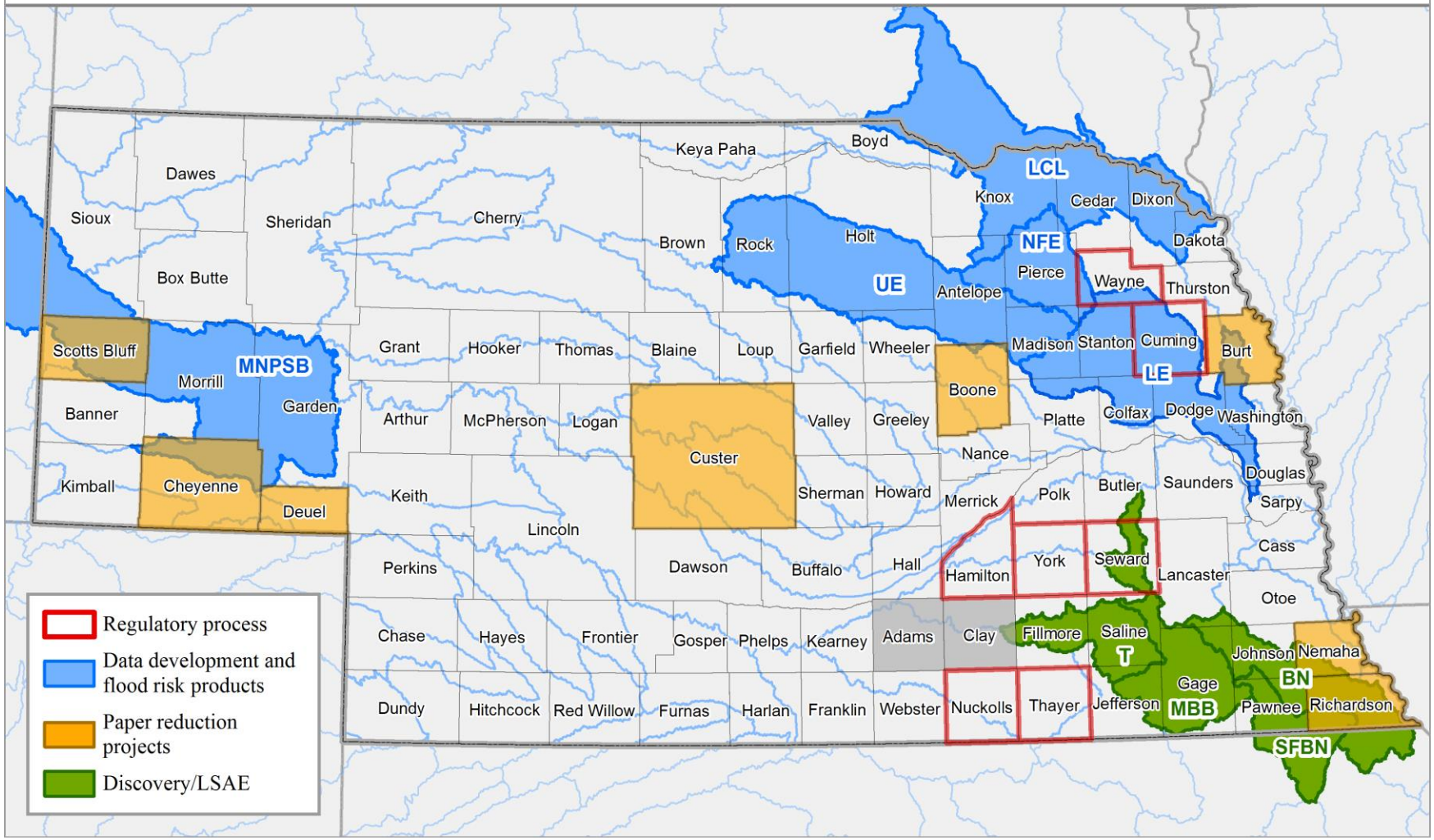
FY2017 CTP Business Plan
Proposed FY2018 Projects



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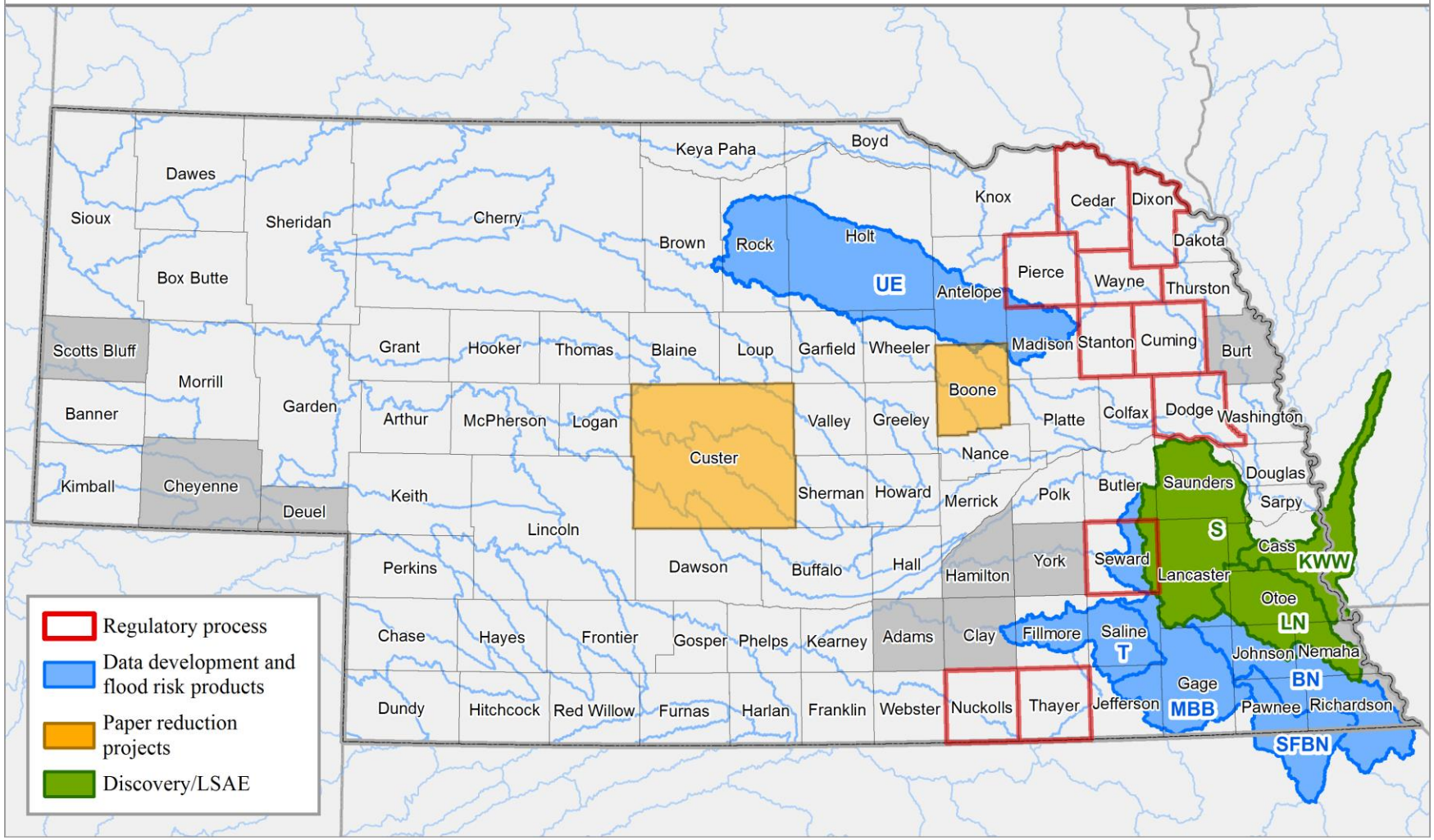
FY2017 CTP Business Plan
Proposed FY2019 Projects



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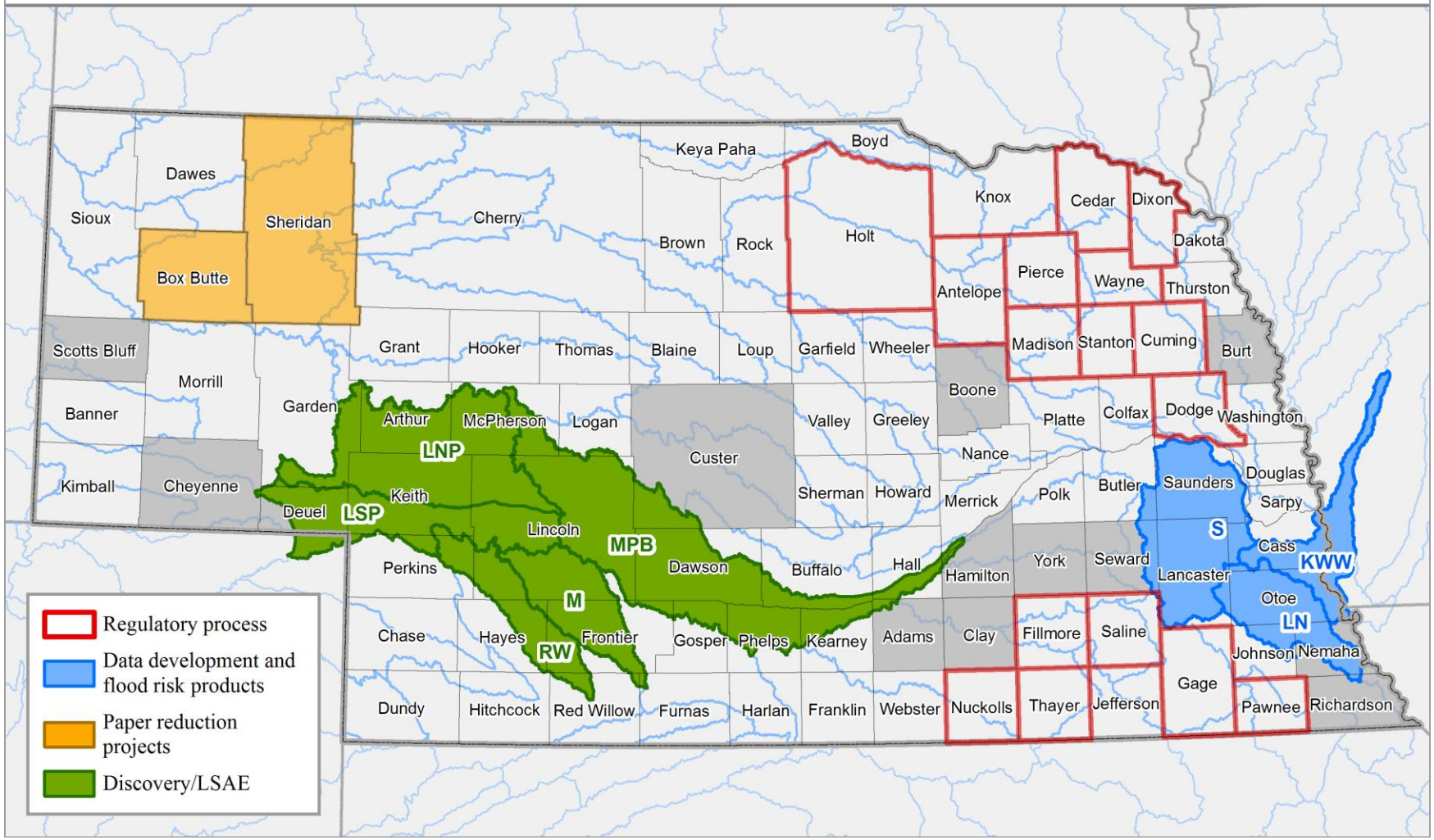
FY2017 CTP Business Plan
Proposed FY2020 Projects



NEBRASKA

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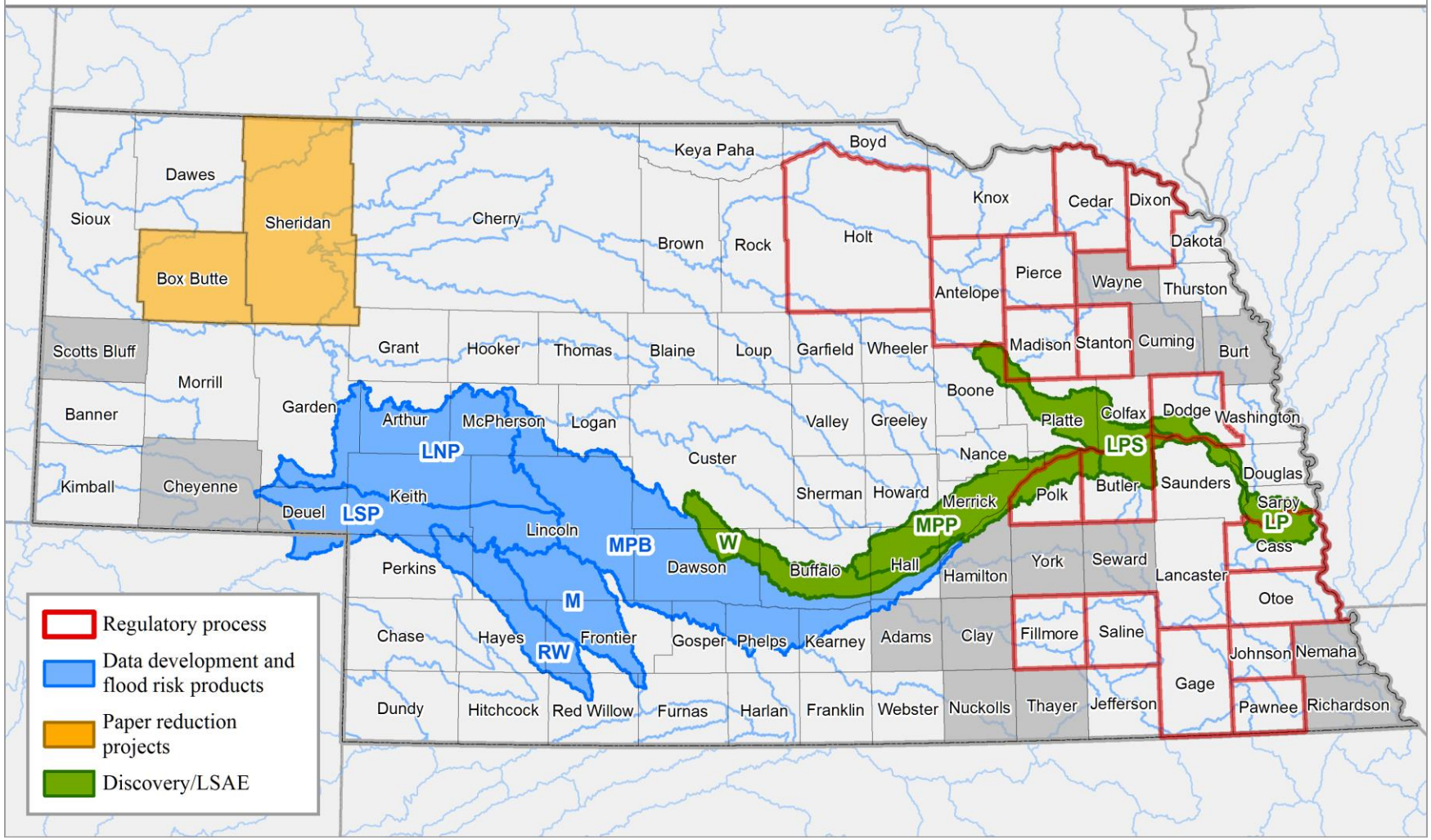
FY2017 CTP Business Plan
Proposed FY2021 Projects



NEBRASKA

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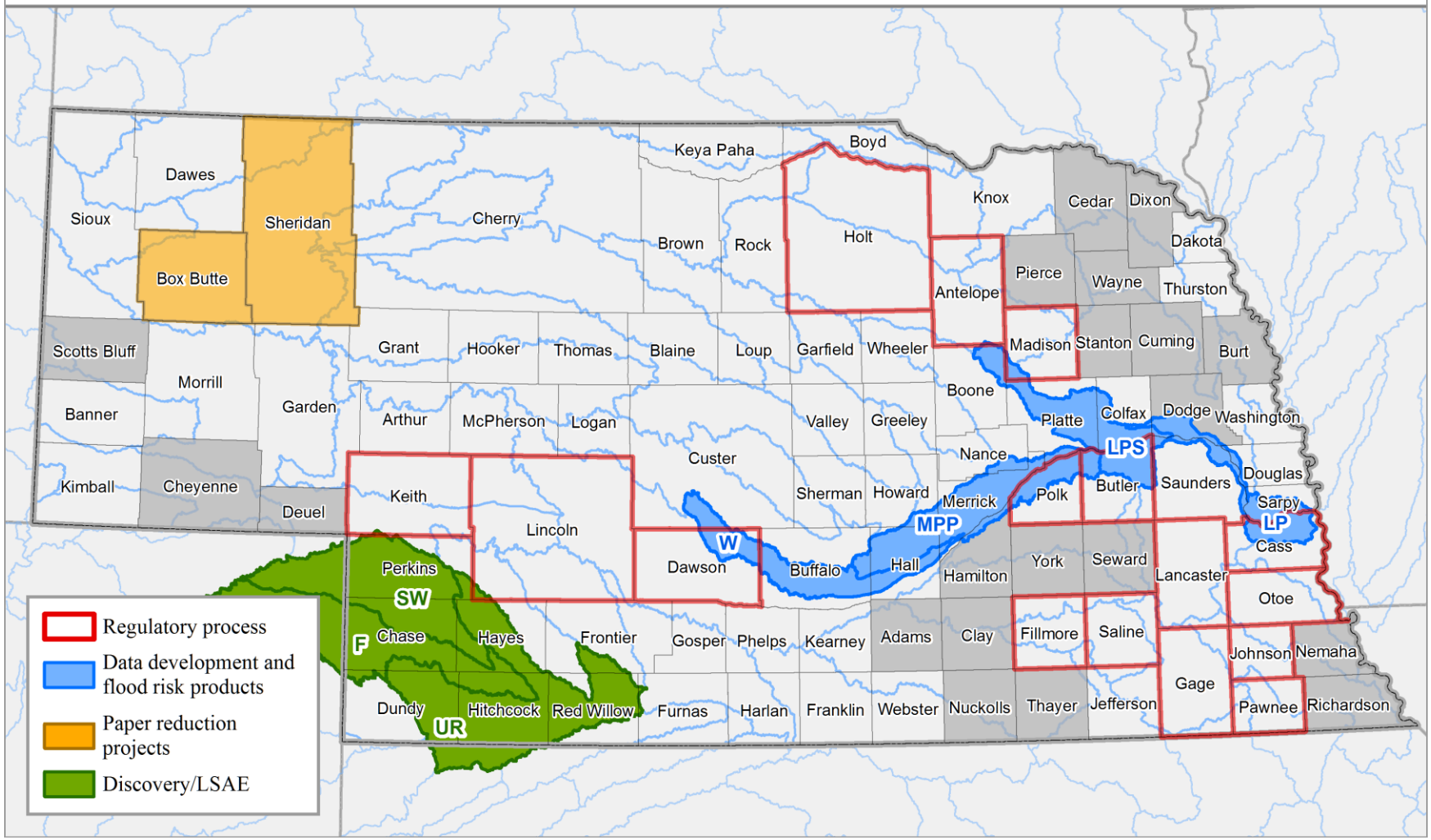
FY2017 CTP Business Plan
Proposed FY2022 Projects



NEBRASKA

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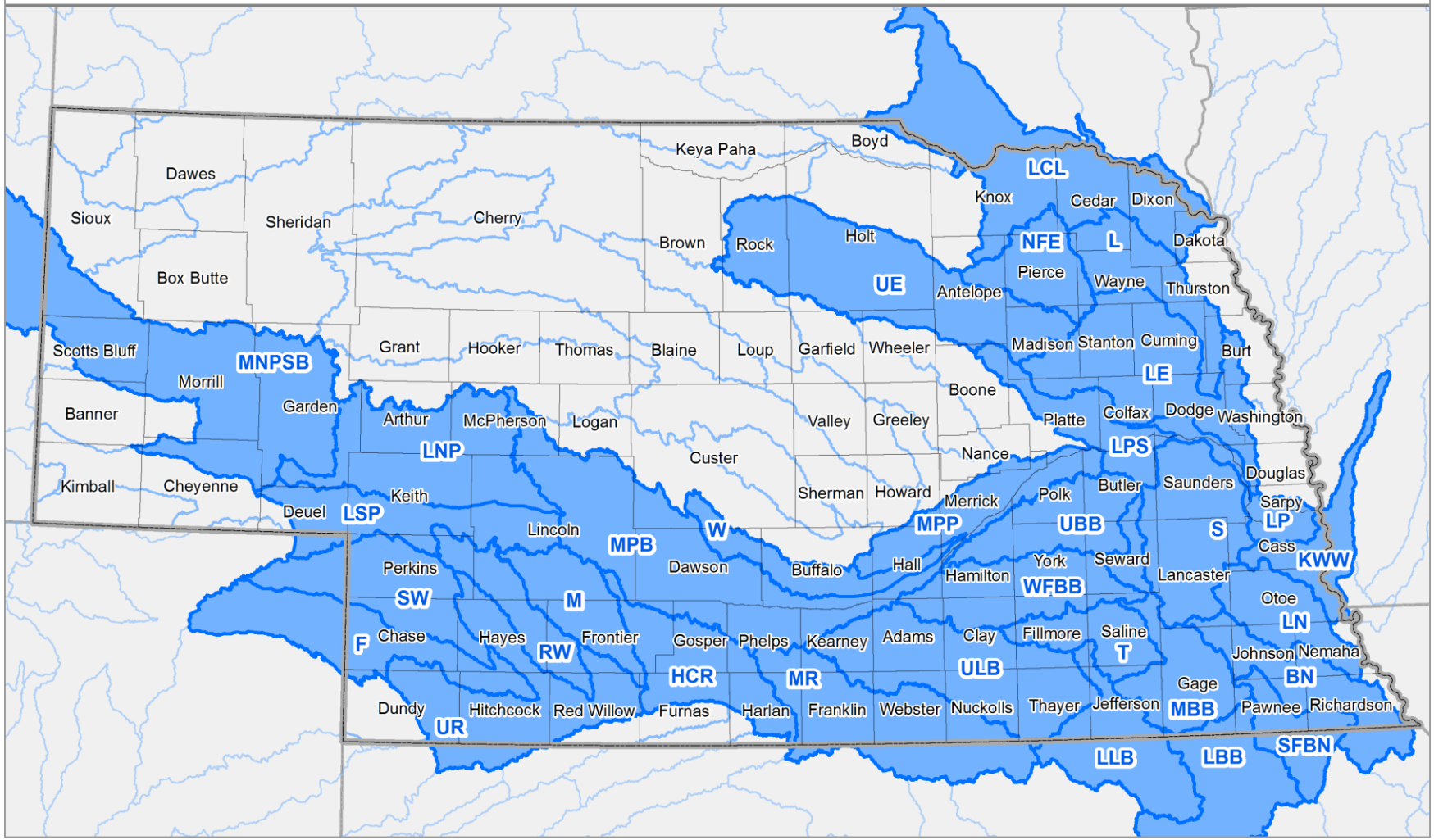
FY2017 CTP Business Plan
Engaged Watersheds FY2027



NEBRASKA

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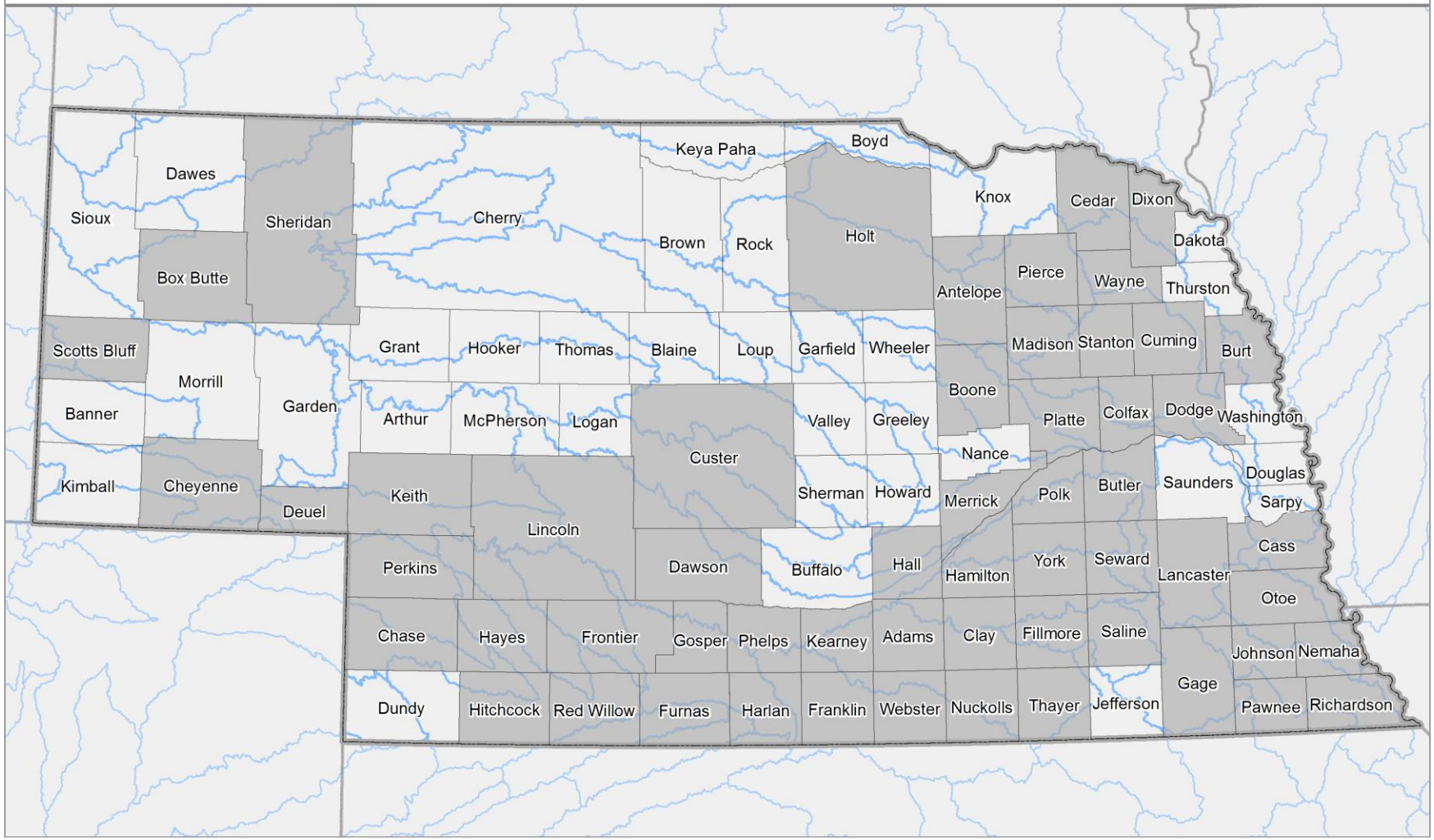
FY2017 CTP Business Plan
Regulatory FY2027 Products

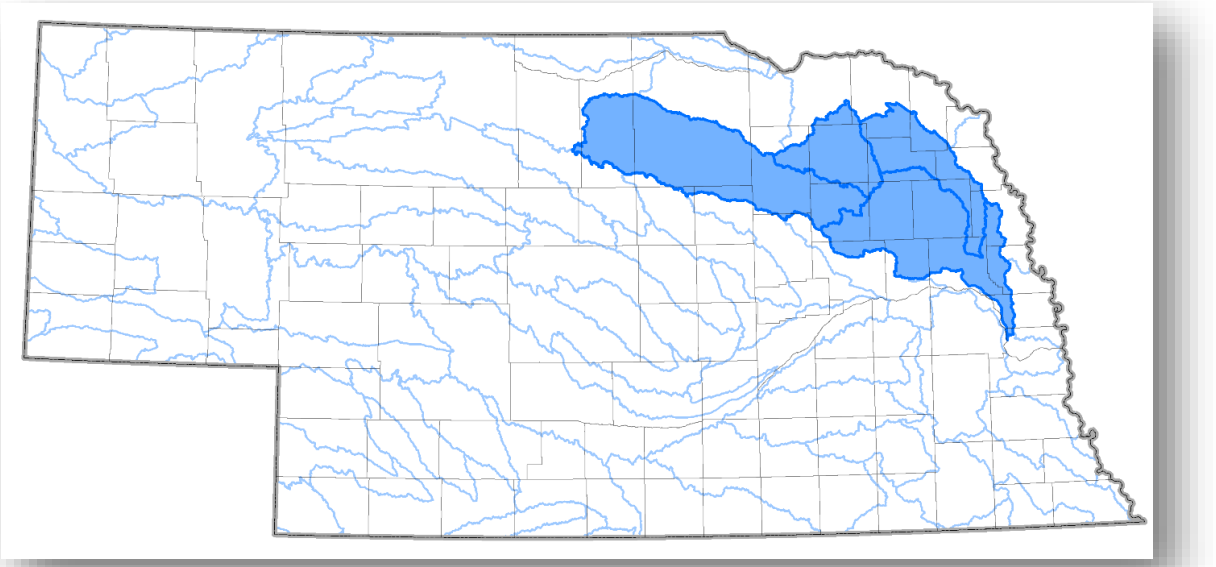


Section 2. Watershed Fact Sheets

Watersheds: Upper Elkhorn, North Fork Elkhorn, Lower Elkhorn, Logan

HUC: 10220001, 10220002, 10220003, 10220004

Population: 141,537



The Elkhorn watersheds are located in Northeastern Nebraska. In the spring of 2010, the Elkhorn River experienced a significant flood event that drastically altered the channel configuration, rendering all the studies along the Elkhorn River and many on its tributaries unverified. With such significant changes occurring to the floodplain, the watersheds are in desperate need of being restudied.

By 2018, LiDAR coverage will be acquired for the remaining areas of North Fork Elkhorn and Upper Elkhorn watersheds in addition to the current coverage for Logan and Lower Elkhorn watersheds. Logan and Lower Elkhorn watersheds are also currently undergoing Large Scale Automated Engineering (LSAE) in FY2016, producing hydrologic and hydraulic data for the region.

While the Elkhorn River resides entirely in Nebraska, it is shared by two CTPs: NeDNR and the Papio-Missouri River Natural Resources District. Although NeDNR plans to lead the Risk MAP project for this watershed, it will work closely with the Papio-Missouri River NRD. Additional leverage data will be provided by the USACE Omaha District, who

will provide updated hydrology for the entirety of the Elkhorn River. NeDNR completed Discovery in the Lower Elkhorn watershed in 2011.

Proposed Schedule of Work
Upper Elkhorn

FY2016 (Oct 2016 - Sept 2017)	
	KDP #0 Initiate Flood Risk Project?
FY2017 (Oct 2017 - Sept 2018)	
Mapping Activity	Base Level Engineering for Upper Elkhorn Watershed *KDP #1 Continue Flood Risk Project?*
FY2018 (Oct 2018 - Sept 2020)	
Mapping Activity	Data Development Basic studies in Upper Elkhorn Watershed Enhanced studies in: - Upper Elkhorn: Elkhorn River from the Stanton/Madison County line to the headwaters - Norfolk: North Fork Elkhorn; Elkhorn River Norfolk Bypass; Elkhorn River Countyline Bypass - O'Neill: O'Neill Tributary - Madison: Union Creek; Taylor Creek
Non-Regulatory	Non-Regulatory Product Development for Upper Elkhorn Watershed
CERC Activity	Flood Risk Review Meeting for Upper Elkhorn Watershed *KDP #2 Develop Preliminary FIRM?*
FY2020 (Oct 2020 - Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Part of Holt, Antelope, and Madison Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Upper Elkhorn Watershed
CERC Activity	CCO Meeting for Part of Holt, Antelope, and Madison Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Part of Holt, Antelope, and Madison Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Part of Holt, Antelope, and Madison Counties***

Fact Sheet
Upper Elkhorn

Risk MAP Program Measures	
Population	31,372
NE % Population	1.7%
NVUE #'s	Valid = 21, Unverified = 710, and Unmapped = 1,969
Leverage Data	Complete LiDAR coverage. USACE plans to complete the Hydrology for the entire Elkhorn Basin (Logan, North Elkhorn River, Upper Elkhorn and Lower Elkhorn Watersheds) in FY2016, and the Hydraulics from the mouth to the Madison-Stanton County line. Then in FY2017 the USACE plans on completing the rest of the Hydraulics from the Madison-Stanton County line to the headwaters. It will be an enhanced study for the entire length of the stream. USACE is using FPMS funds to complete the project. NeDNR will completely take the project over after hydraulics.
List of Communities	Antelope County, City of Atkinson, City of Bassett, City of Battle Creek, Boone County, Brown County, Village of Chambers, Village of Clearwater, City of Elgin, Village of Emmet, Village of Ewing, Garfield County, Holt County, Village of Inman, Madison County, Village of Meadow Grove, City of Neligh, Village of Newport, City of Norfolk, Village of Oakdale, City of O'Neill, Village of Page, Pierce County, Rock County, Stanton County, Village of Stuart, City of Tilden, Wheeler County
Number of Communities	28 Communities in Lower Elkhorn Watershed
Additional Notes	

Proposed Schedule of Work
North Fork Elkhorn

FY2016 (Oct 2016 - Sept 2017)	
	KDP #0 Initiate Flood Risk Project?
FY2017 (Oct 2017 - Sept 2018)	
CERC Activity	Discovery Meeting for North Fork Elkhorn Watershed and Willow Creek *KDP #1 Continue Flood Risk Project?*
FY2018 (Oct 2018 - Sept 2019)	
Mapping Activity	Data Development Basic studies in North Fork Elkhorn Watershed Enhanced studies in: - Pierce North Fork Elkhorn River Willow Creek
Flood Risk Products	Flood Risk Product Development for North Fork Elkhorn Watershed
CERC Activity	Flood Risk Review Meeting for North Fork Elkhorn Watershed *KDP #2 Develop Preliminary FIRM?*
FY2019 (Oct 2019 - Sept 2022)	
Mapping Activity	Preliminary FIRM Development for Pierce County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for North Fork Elkhorn Watershed
CERC Activity	CCO Meeting for Pierce County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Pierce County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Pierce County***

Fact Sheet
North Fork Elkhorn

Risk MAP Program Measures	
Population	29,859
NE % Population	1.6%
NVUE #'s	Valid = 20, Unverified = 755, and Unmapped = 140
Leverage Data	Complete LiDAR coverage. USACE plans to complete the Hydrology for the entire Elkhorn Basin (Logan, North Elkhorn River, Upper Elkhorn and Lower Elkhorn Watersheds) in FY2016. USACE is using FPMS funds to complete the project. NeDNR will completely take the project over after hydrology.
List of Communities	Antelope County, Cedar County, Village of Foster, Village of Hadar, Village of Hoskins, Knox County, Madison County, Village of Magnet, Village of McLean, City of Norfolk, City of Osmond, City of Pierce, Pierce County, City of Plainview, Stanton County, Village of Wausa, Wayne County
# of Communities	17 communities in the North Fork Elkhorn Watershed
Additional Notes:	

Proposed Schedule of Work
Lower Elkhorn

FY2015 (Oct 2015 - Sept 2016)	
	KDP #0 Initiate Flood Risk Project?
FY2016 (Oct 2016 - Sept 2017)	
Mapping Activity	Base Level Engineering for Lower Elkhorn Watershed *KDP #1 Continue Flood Risk Project?*
FY2017 (Oct 2017 - Sept 2019)	
Mapping Activity	Data Development Basic studies in Lower Elkhorn Watershed Enhanced studies in: - Upper Elkhorn — Elkhorn River from the mouth to the Stanton/Madison County line - West Point — Unnamed Creek South of West Point - Dodge — Middle Pebble Creek - Synder — Middle Pebble Creek - Scribner — Pebble Creek
Non-Regulatory	Non-Regulatory Product Development for Lower Elkhorn Watershed
CERC Activity	Flood Risk Review Meeting for Lower Elkhorn Watershed *KDP #2 Develop Preliminary FIRM?*
FY2018 (Oct 2018 - Sept 2021)	
Mapping Activity	Preliminary FIRM Development for Cuming County *KDP #3 Issue Preliminary Products?*
CERC Activity	CCO Meeting for Cuming County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Cuming County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Cuming County***
FY2019 (Oct 2019 - Sept 2022)	
Mapping Activity	Preliminary FIRM Development for Stanton and part of Dodge Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lower Elkhorn Watershed
CERC Activity	CCO Meeting for Stanton and part of Dodge Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Stanton and part of Dodge Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Stanton and part of Dodge Counties***

Fact Sheet
Lower Elkhorn

Risk MAP Program Measures	
Population	29,859
NE % Population	1.6%
NVUE #'s	Valid = 613, Unverified = 1,347, and Unmapped = 216
Leverage Data	Complete LiDAR coverage. USACE plans to complete the Hydrology for the entire Elkhorn Basin (Logan, North Elkhorn River, Upper Elkhorn and Lower Elkhorn Watersheds) in FY2016, and the Hydraulics from the mouth to the Madison-Stanton County line. Then in FY2017 the USACE plans on completing the rest of the Hydraulics from the Madison-Stanton County line to the headwaters. It will be an enhanced study for the entire length of the stream. USACE is using FPMS funds to complete the project. NeDNR will completely take the project over after hydraulics.
List of Communities	Village of Arlington, Village of Beemer, Burt County, City of Clarkson, Colfax County, Village of Cornlea, Village of Craig, Village of Creston, Cuming County, Dodge County, Village of Dodge, Douglas County, City of Fremont, City of Gretna, City of Hooper, Village of Howells, City of Humphrey, Village of Leigh, Village of Lindsay, City of Lyons, City of Madison, Madison County, Village of Nickerson, City of Norfolk, City of Omaha, Village of Pilger, Platte County, Sarpy County, City of Scribner, Village of Snyder, Stanton County, City of Stanton, Thurston County, City of Valley, Washington County, Village of Waterloo, Wayne County, City of West Point, Village of Winslow, City of Wisner
Number of Communities	40 Communities in Lower Elkhorn Watershed
Additional Notes	

Proposed Schedule of Work

Logan

FY2015 (Oct 2015 - Sept 2016)	
	KDP #0 Initiate Flood Risk Project?
FY2016 (Oct 2016 - Sept 2017)	
CERC Activity	Discovery Meeting for Logan Watershed *KDP #1 Continue Flood Risk Project?*
FY2017 (Oct 2017 - Sept 2018)	
Mapping Activity	Data Development Basic studies in Logan Watershed Enhanced studies in: - Randolph: Middle Logan Creek, North Branch Middle Logan Creek, North Branch Middle Logan Creek Diversion, East Tributary North Branch Middle Logan Creek, South Branch Middle Logan Creek, and West Tributary South Branch Middle Logan Creek - Wakefield: Logan Creek Dredge and South Logan Creek - Wayne: Deer Creek, Dog Creek and South Logan Creek
Non-Regulatory	Non-Regulatory Product Development for Logan Watershed
CERC Activity	Flood Risk Review Meeting for Logan Watershed *KDP #2 Develop Preliminary FIRM?*
FY2018 (Oct 2018 - Sept 2021)	
Mapping Activity	Preliminary FIRM Development for Wayne County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Logan Watershed
CERC Activity	CCO Meeting for Wayne County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Wayne County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Wayne County***

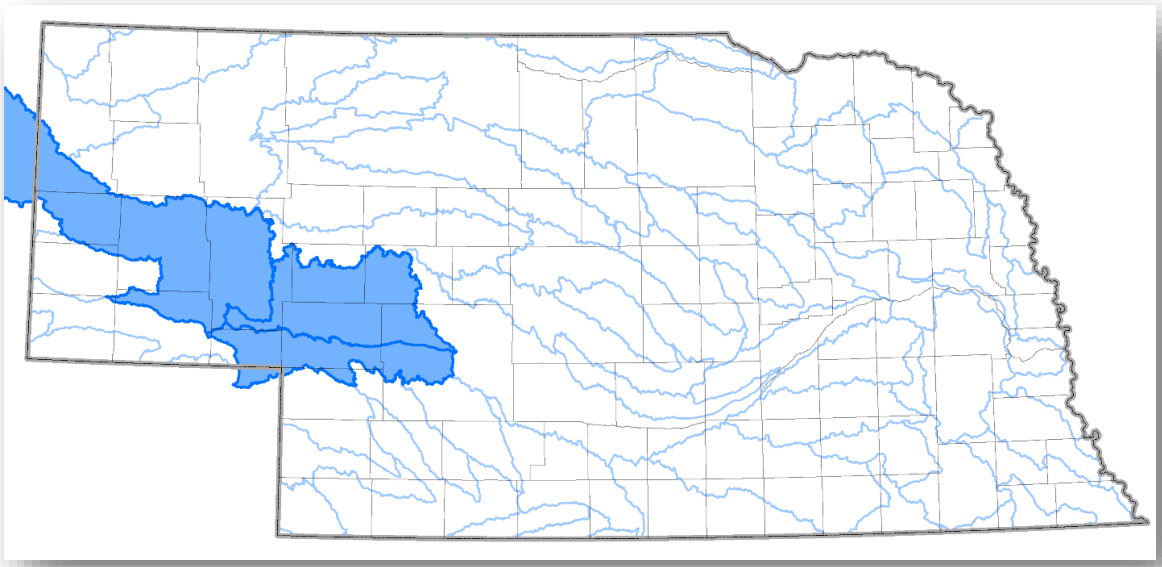
Fact Sheet
Logan

Risk MAP Program Measures	
Population	66,794
NE % Population	1.2%
NVUE #'s	Valid = 50, Unverified = 655, and Unmapped = 232
Leverage Data	Complete LiDAR coverage. USACE plans to complete the Hydrology for the entire Elkhorn Basin (Logan, North Elkhorn River, Upper Elkhorn and Lower Elkhorn Watersheds) in FY2016. USACE is using FPMS funds to complete the project. NeDNR will completely take the project over after hydraulics.
List of Communities	Village of Bancroft, Village of Belden, Burt County, Village of Carroll, Cedar County, Village of Coleridge, Village of Concord, Cuming County, Dakota County, Dixon County, Village of Dixon, Dodge County, Village of Emerson, City of Laurel, City of Lyons, City of Oakland, Village of Pender, Pierce County, City of Randolph, Village of Rosalie, Village of Sholes, Village of Thurston, Thurston County, Village of Uehling, City of Wakefield, City of Wayne, Wayne County, Village of Winside, and Village of Winslow
Number of Communities	29 Communities in Logan Watershed
Additional Notes	

Watersheds: Middle North Platte – Scotts Bluff, Lower North Platte, Lower South Platte

HUC: 10180009, 10180014, 10190018

Population: 86,858 (Nebraska)



The Middle North Platte-Scotts Bluff, Lower North Platte, and Lower South Platte watersheds are located in Eastern Wyoming and Western Nebraska. As one of the two main tributaries to the Platte River, the North Platte River is often a controlling factor on downstream Platte River flooding. As demonstrated during spring flooding in 2010 and 2011, the lack of accurate and up-to-date information was a hindrance in assessing risk and implementing mitigation activities downstream. Better mapping would aid in these activities and help keep the public informed. Due to the importance of the North Platte River, several key stakeholders have expressed interest in partnering with NeDNR. The USACE and the NWS, through a Silver Jackets project, will be developing hydrology data as well as real-time flood inundation mapping for the North Platte River.

In addition, LiDAR data was collected for Scotts Bluff, Morrill, and Garden counties in 2012, as well as along the Platte River in 2011. LiDAR coverage for the remaining land area in the watersheds was completed in the spring of 2017 with the addition of the USGS 2016 South Platte LiDAR dataset. Availability of current elevation information, past flood

history, and the possibility for alliance with other agencies make this area a strong candidate for a Risk MAP project.

Proposed Schedule of Work
Middle North Platte - Scotts Bluff

FY2015 (Oct 2015 - Sept 2016)	
	KDP #0 Initiate Flood Risk Project?
FY2016 (Oct 2016 - Sept 2017)	
Mapping Activity	Base Level Engineering for Middle North Platte-Scotts Bluff Watershed
FY2017 (Oct 2017 - Sept 2018)	
CERC Activity	Discovery Meeting for Middle North Platte-Scotts Bluff Watershed *KDP #1 Continue Flood Risk Project?*
FY2018 (Oct 2018 - Sept 2019)	
Mapping Activity	Data Development Basic studies in Bayard and Bridgeport. Enhanced studies in: - Bayard Wildhorse Drain
Non-Regulatory	Non-Regulatory Product Development for Middle North Platte - Scotts Bluff Watershed
CERC Activity	Flood Risk Review Meeting for Middle North Platte - Scotts Bluff Watershed *KDP #2 Develop Preliminary FIRM?*
FY2019 (Oct 2019 - Sept 2022)	
Mapping Activity	Preliminary FIRM Development for Bridgeport and Bayard *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Middle North Platte - Scotts Bluff Watershed
CERC Activity	CCO Meetings for Bridgeport and Bayard *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Bridgeport and Bayard *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Bridgeport and Bayard***

Fact Sheet
Middle North Platte-Scotts Bluff

Risk MAP Program Measures	
Population	44,839
NE % Population	2.5%
NVUE #'s	Valid = 2, Unverified = 1,083, and Unmapped = 42
Leverage Data	Acquisition of USGS 2016 LiDAR data in spring of 2017, along with 2011 and 2012 NRCS LiDAR datasets, provide accurate elevation data for the study area. As part of the FY2012 and FY2015 Silver Jackets projects, the Hydrology for the North Platte River was completed, and as part of a FY2016 Silver Jackets project the North Platte River and Winter's Creek Hydraulic studies in the City of Scottsbluff were completed. These studies will be utilized for the projects in this watershed.
List of Communities	Banner County, City of Bayard, Box Butte County, City of Bridgeport, Village of Broadwater, Cheyenne County, Village of Dalton, Deuel County, Garden County, City of Gering, Village of Gurley, Village of Henry, Kimball County, Village of Lewellen, Village of McGrew, Village of Melbeta, City of Minatare, City of Mitchell, Village of Morrill, Morrill County, City of Oshkosh, Scotts Bluff County, City of Scottsbluff, Sioux County, City of Terrytown
Number of Communities	25 Communities in Middle North Platte-Scotts Bluff Watershed
Additional Notes	

Proposed Schedule of Work
Lower North Platte

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project?
FY2020 (Oct 2020 - Sept 2021)	
CERC Activity	Discovery Meeting for Lower North Platte Watershed *KDP #1 Continue Flood Risk Project?*
FY2021 (Oct 2021 - Sept 2022)	
Mapping Activity	Data Development Basic studies in Lower North Platte Watershed Enhanced Study in: - North Platte North Platte River South Platte River Fremont Slough Whitehorse Creek
Flood Risk	Flood Risk Product Development for Lower North Platte Watershed
CERC Activity	Flood Risk Review Meeting for Lower North Platte Watershed *KDP #2 Develop Preliminary FIRM?*
FY2022 (Oct 2022 - Sept 2025)	
Mapping Activity	Preliminary FIRM Development for Lincoln County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lower North Platte Watershed
CERC Activity	CCO Meeting for Lincoln County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Lincoln County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Lincoln County***

Fact Sheet
Lower North Platte

Risk MAP Program Measures	
Population	28,319
NE % Population	1.6%
NVUE #'s	Valid = 44, Unverified = 360, and Unmapped = 1,440
Leverage Data	Acquisition of USGS 2016 LiDAR data in spring of 2017, along with 2011 and 2012 NRCS LiDAR datasets, provide accurate elevation data for the study area. As part of the FY2012 and FY2015 Silver Jackets projects, the Hydrology for the North Platte River was completed.
List of Communities	Village of Arthur, Arthur County, Deuel County, Garden County, Village of Hershey, Keith County, Village of Lewellen, Lincoln County, McPherson County, City of North Platte, City of Ogallala, Village of Sutherland
# Communities	12 Communities in the Lower North Platte Watershed
Additional Notes:	

Proposed Schedule of Work
Lower South Platte

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project?
FY2020 (Oct 2020 - Sept 2021)	
CERC Activity	Discovery Meeting for Lower South Platte Watershed *KDP #1 Continue Flood Risk Project?*
FY2021 (Oct 2021 - Sept 2022)	
Mapping Activity	Data Development Basic studies in Lower South Platte Watershed
Flood Risk	Flood Risk Product Development for Lower South Platte Watershed
CERC Activity	Flood Risk Review Meeting for Lower South Platte Watershed *KDP #2 Develop Preliminary FIRM?*
FY2022 (Oct 2022 - Sept 2025)	
Mapping Activity	Preliminary FIRM Development for Keith County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lower South Platte Watershed
CERC Activity	CCO Meeting for Keith County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Keith County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Keith County***

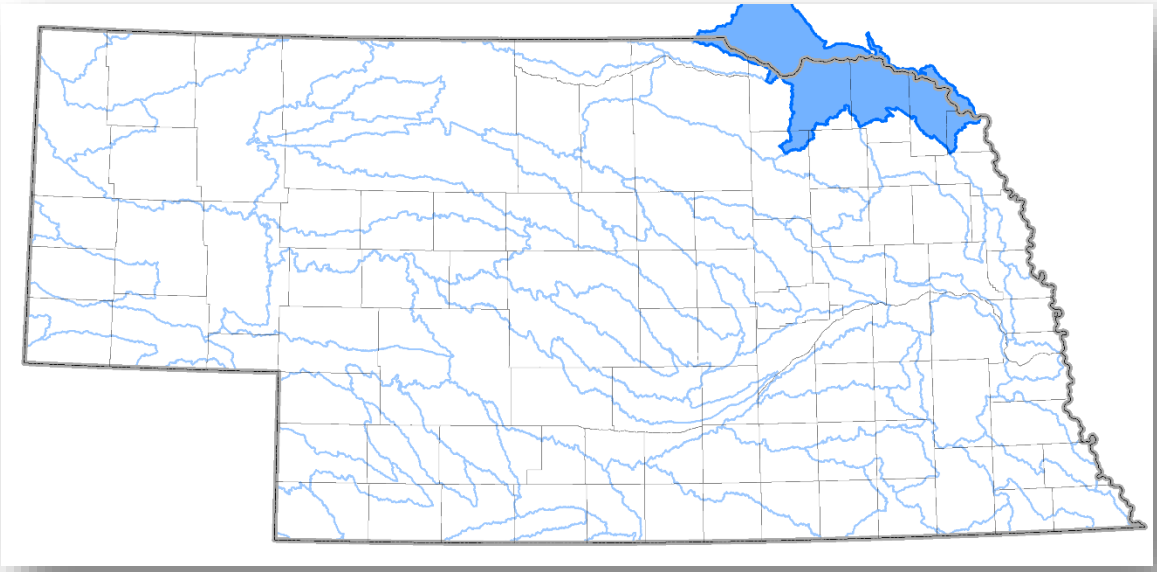
Fact Sheet
Lower South Platte

Risk MAP Program Measures	
Population	16,669
NE % Population	0.9%
NVUE #'s	Valid = 40, Unverified = 240, and Unmapped = 546
Leverage Data	Acquisition of USGS 2016 LiDAR data in spring of 2017, along with 2011 and 2012 NRCS LiDAR datasets, provide accurate elevation data for the study area.
List of Communities	Village of Big Springs, Village of Brule, Cheyenne County, Deuel County, Garden County, Village of Hershey, Keith County, Lincoln County, City of North Platte, City of Ogallala, Village of Paxton, Perkins County, Village of Sutherland
# of Communities	13 communities in the Lower South Platte Watershed
Additional Notes:	

Watershed: Lewis and Clark Lake

HUC: 10170101

Population: 17,597 (Nebraska)



The Lewis and Clark Lake watershed is located in Southeastern South Dakota and Northeastern Nebraska. NeDNR has identified this watershed based on the availability of leverage data and potential mitigation concerns arising from the 2011 Missouri River Flooding. Many homes and cabins were lost and infrastructure (e.g., roads, bridges, waste-water treatment plants, power plants, etc.) were damaged due to the historic high flows that occurred along the Missouri River. NeDNR completed the Discovery phase of Risk MAP for this watershed in 2011.

LiDAR for the majority of the watershed was completed in 2011 with the addition of the NRCS 2011 and USACE Missouri River 2011 LiDAR datasets. The remaining portions of the watershed were completed with the NRCS 2016 dataset covering the northwestern and northern regions of the state, including Boyd and Antelope counties.

Proposed Schedule of Work
Lewis and Clark Lake

FY2016 (Oct 2016 - Sept 2017)	
	KDP #0 Initiate Flood Risk Project?
FY2017 (Oct 2017 - Sept 2018)	
Mapping Activity	Base Level Engineering for Lewis and Clark Lake Watershed *KDP #1 Continue Flood Risk Project?*
FY2018 (Oct 2018 - Sept 2019)	
Mapping Activity	Data Development Basic studies in Lewis and Clark Lake Watershed
Non-Regulatory	Non-Regulatory Product Development for Lewis and Clark Lake Watershed
CERC Activity	Flood Risk Review Meeting for Lewis and Clark Lake Watershed *KDP #2 Develop Preliminary FIRM?*
FY2019 (Oct 2019 - Sept 2022)	
Mapping Activity	Preliminary FIRM Development for Cedar and Dixon Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lewis and Clark Lake Watershed
CERC Activity	CCO Meeting for Cedar and Dixon Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Cedar and Dixon Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Cedar and Dixon Counties***

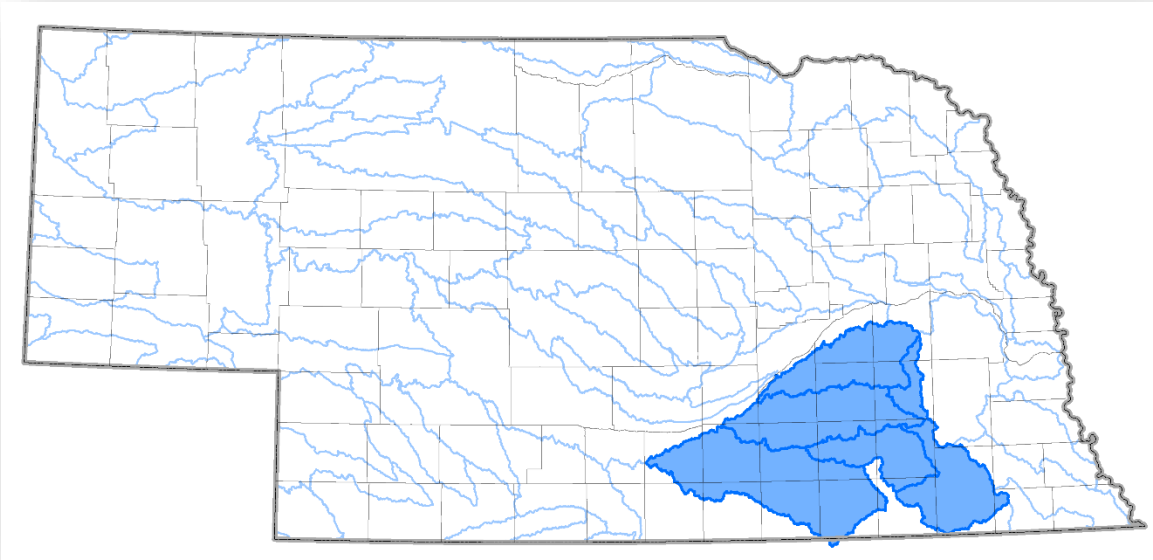
Fact Sheet
Lewis and Clark Lake

Risk MAP Program Measures	
Population	17,597
NE % Population	1.0%
NVUE #'s	Valid = 769, Unverified = 544, and Unmapped = 824
Leverage Data	LiDAR for the majority of the watershed was completed in 2011 with the addition of the NRCS 2011 and USACE Missouri River 2011 LiDAR datasets. The remaining portions of the watershed were completed with the NRCS 2016 dataset covering the northwestern and northern regions of the state, including Boyd and Antelope counties.
List of Communities	Village of Allen, Antelope County, Village of Bazile Mills, City of Bloomfield, Boyd County, Village of Brunswick, Cedar County, Village of Center, Village of Coleridge, City of Creighton, City of Crofton, Dakota County, Dixon County, Village of Emerson, Village of Fordyce, City of Hartington, Village of Jackson, Knox County, Village of Martinsburg, Village of Maskell, Village of Newcastle, Village of Niobrara, Village of Obert, Pierce County, City of Ponca, Village of Santee, South Sioux City, Village of St. Helena, Thurston County, Village of Waterbury, Village of Winnetoon, Village of Wynot
Number of Communities	32 Communities in Lewis and Clark Lake Watershed
Additional Notes	

Watersheds: Upper Big Blue, Middle Big Blue, West Fork Big Blue, Turkey, Upper Little Blue

HUC: 10270201, 10270202, 10270203, 10270204, 10270206

Population: 143,585 (Nebraska)



The Middle Big Blue, Turkey and Upper Little Blue watersheds, located in southeastern Nebraska, are a high priority for NeDNR, where projects in West Fork Big Blue and Upper Big Blue are currently underway. A number of communities in the watersheds have a long history of flood damages as well as mitigation activities. The village of DeWitt lies entirely within the floodplain and has suffered devastating floods in 2015, 2013, 1993, 1986, and 1984, in addition to flood events in the distant past. The city of Beatrice has suffered many floods as well, with nearly 36 major flooding events in 130 years. Both communities have been proactive about mitigating risk: Beatrice has acquired hundreds of properties to remove families from flood risk and DeWitt has installed flap gates to prevent more recurrent flooding from impacting the village.

LiDAR data is important leverage data that will be provided for these Watersheds. Gage, Fillmore, Nuckolls, Saline and Thayer Counties were mapped prior to receiving LiDAR data,

which has since been acquired with the addition of the NRCS 2009 South Central Nebraska LiDAR dataset. The precision of 2m LiDAR elevation data in this region will significantly increase the accuracy of the flood zones for these counties.

Hydrology for the Upper Little Blue Watershed has been completed for reaches upstream of Clay County as part of the currently ongoing Risk MAP study for Clay County. Preliminary Maps were created for Adams and Clay counties in FY2015.

Of the total CNMS Stream Miles, as of 2017 Q2, for Middle Big Blue, Turkey, and Upper Little Blue watersheds, only 1,175 stream miles were classified as "Valid," while 4,046 stream miles were classified as "Unverified" or "Unknown." According to this data, only 22.5% of stream miles were classified as "Valid" for these watersheds.

Proposed Schedule of Work
Upper Big Blue

FY2016 (Oct 2016 - Sept 2017)	
	KDP #0 Initiate Flood Risk Project? *KDP #1 Continue Flood Risk Project?*
FY2016 (Oct 2017 - Sept 2018)	
Mapping Activity	Data Development Basic studies in Upper Big Blue Watershed
Non-Regulatory	Non-Regulatory Product Development for Upper Big Blue Watershed
CERC Activity	Flood Risk Review Meeting for Upper Big Blue Watershed *KDP #2 Develop Preliminary FIRM?*
FY2017 (Oct 2017 - Sept 2020)	
Mapping Activity	Preliminary FIRM Development for Seward County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Upper Big Blue Watershed
CERC Activity	CCO Meeting for Seward County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Seward County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Seward County***
FY2021 (Oct 2021 - Sept 2024)	
Mapping Activity	Preliminary FIRM Development for Polk and Butler Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	CCO Meeting for Polk and Butler Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Polk and Butler Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Polk and Butler Counties***

Fact Sheet
Upper Big Blue

Risk MAP Program Measures	
Population	24,240
NE % Population	1.3%
NVUE #'s	Valid = 45, Unverified = 1,053, and Unmapped = 14
Leverage Data	2009 NRCS South Central Nebraska LiDAR dataset.
List of Communities	City of Aurora, Village of Benedict, Village of Bradshaw, Village of Brainard, Butler County, City of David City, Village of Garrison, Village of Gresham, Hall County, Hamilton County, Village of Hampton, Village of Hordville, Village of Marquette, City of Osceola, Village of Phillips, Village of Polk, Polk County, Village of Rising City, City of Seward, Seward County, Village of Shelby, Village of Staplehurst, City of Stromsburg, Village of Surprise, Village of Thayer, Village of Ulysses, Village of Utica, Village of Waco, City of York, York County
Number of Communities	30 Communities in Upper Big Blue Watershed
Additional Notes	

Proposed Schedule of Work
Middle Big Blue

FY2017 (Oct 2017 - Sept 2018)	
	KDP #0 Initiate Flood Risk Project?
FY2018 (Oct 2018 - Sept 2019)	
CERC Activity	Discovery Meeting for Middle Big Blue Watershed *KDP #1 Continue Flood Risk Project?*
FY2019 (Oct 2019 - Sept 2020)	
Mapping Activity	Data Development Basic studies in Middle Big Blue Watershed. Enhanced studies in: - Crete — Walnut Creek - Wilbur — North Unnamed Tributary of Big Blue River Middle Unnamed Tributary of Big Blue River - DeWitt — Big Blue River Overflow - Beatrice — Big Blue River Indian Creek Big Blue River Trib 44 - Blue Springs — Big Blue River
Non-Regulatory	Non-Regulatory Product Development for Middle Big Blue Watershed
CERC Activity	Flood Risk Review Meeting for Middle Big Blue Watershed *KDP #2 Develop Preliminary FIRM?*
FY2020 (Oct 2020 - Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Gage County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Middle Big Blue Watershed
CERC Activity	CCO Meeting Gage County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Gage County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Gage County***

Fact Sheet
Middle Big Blue

Risk MAP Program Measures	
Population	42,699
NE % Population	2.3%
NVUE #'s	Valid = 330, Unverified = 1,210, and Unmapped = 12
Leverage Data	2009 NRCS South Central Nebraska LiDAR dataset.
List of Communities	City of Beatrice, Village of Bee, City of Blue Springs, Village of Brainard, Butler County, Village of Clatonia, Village of Cortland, City of Crete, Village of DeWitt, Village of Diller, Village of Dorchester, Village of Dwight, Village of Filley, Gage County, Village of Garland, Village of Goehner, Village of Hallam, Village of Harbine, Village of Jansen, Jefferson County, Lancaster County, Village of Lewiston, City of Milford, Village of Odell, Pawnee County, Village of Pickrell, Village of Plymouth, Saline County, City of Seward, Seward County, Village of Virginia, City of Wilber, City of Wymore
# of Communities	33 communities in the Middle Big Blue Watershed
Additional Notes:	

Proposed Schedule of Work
West Fork Big Blue

FY2016 (Oct 2016 - Sept 2017)	
Mapping Activity	Preliminary FIRM Development for York and Hamilton Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for West Fork Big Blue Watershed
CERC Activity	CCO Meeting for York and Hamilton Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for York and Hamilton Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD for York and Hamilton Counties ***Regulatory Products for York and Hamilton Counties***

Fact Sheet
West Fork Big Blue

Risk MAP Program Measures	
Population	40,099
NE % Population	2.2%
NVUE #'s	Valid = 107, Unverified = 1,281, and Unmapped = 14
Leverage Data	LiDAR.
List of Communities	Adams County, City of Aurora, Village of Beaver Crossing, Village of Bradshaw, Clay County, City of Clay Center, Village of Cordova, Village of Doniphan, Village of Dorchester, Village of Exeter, Village of Fairmont, Fillmore County, Village of Giltner, Village of Goehner, Village of Grafton, Hall County, Hamilton County, Village of Hampton, City of Harvard, City of Hastings, City of Henderson, Village of Lushton, Village of McCool Junction, Village of Prosser, Saline County, Village of Saronville, City of Seward, Village of Stockham, City of Sutton, Village of Trumbull, Village of Utica, Village of Waco, City of York, York County
# of Communities	34 communities in West Fork Big Blue Watershed
Additional Notes:	

Proposed Schedule of Work
Turkey

FY2017 (Oct 2017 - Sept 2018)	
	KDP #0 Initiate Flood Risk Project?
FY2018 (Oct 2018 - Sept 2019)	
CERC Activity	Discovery Meeting for Turkey Watershed *KDP #1 Continue Flood Risk Project?*
FY2019 (Oct 2019 - Sept 2020)	
Mapping Activity	Data Development Basic studies in Turkey Watershed. Enhanced study in: - DeWitt Turkey Creek
Non-Regulatory	Non-Regulatory Product Development for Turkey Watershed
CERC Activity	Flood Risk Review Meeting for Turkey Watershed *KDP #2 Develop Preliminary FIRM?*
FY2020 (Oct 2020 - Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Saline and Fillmore Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Turkey Watershed
CERC Activity	CCO Meeting Saline and Fillmore Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Saline and Fillmore Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Saline and Fillmore Counties***

Fact Sheet
Turkey Creek

Risk MAP Program Measures	
Population	7,306
NE % Population	0.4%
NVUE #'s	Valid = 229, Unverified = 631, and Unmapped = 15
Leverage Data	2009 NRCS South Central Nebraska LiDAR dataset.
List of Communities	Clay County, Village of Daykin, Village of DeWitt, Village of Exeter, Fillmore County, City of Friend, Gage County, City of Geneva, Village of Grafton, Jefferson County, Village of Milligan, Saline County, Village of Swanton, Village of Tobias, Village of Western, City of Wilber
# of Communities	16 communities in the Turkey Creek Watershed
Additional Notes:	

Proposed Schedule of Work
Upper Little Blue

FY2016 (Oct 2016 - Sept 2017)	
	KDP #0 Initiate Flood Risk Project? *KDP #1 Continue Flood Risk Project?*
FY2017 (Oct 2017 - Sept 2018)	
Mapping Activity	Data Development Basic studies in Upper Little Blue Watershed Enhanced Study in: - Hebron Little Blue River
Non-Regulatory	Non-Regulatory Product Development for Upper Little Blue Watershed
CERC Activity	Flood Risk Review Meeting for Upper Little Blue Watershed *KDP #2 Develop Preliminary FIRM?*
FY2018 (Oct 2018 - Sept 2021)	
Mapping Activity	Preliminary FIRM Development for Thayer and part of Nuckolls Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Upper Little Blue Watershed
CERC Activity	CCO Meeting for Thayer and part of Nuckolls Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Thayer and part of Nuckolls Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Thayer and part of Nuckolls Counties***

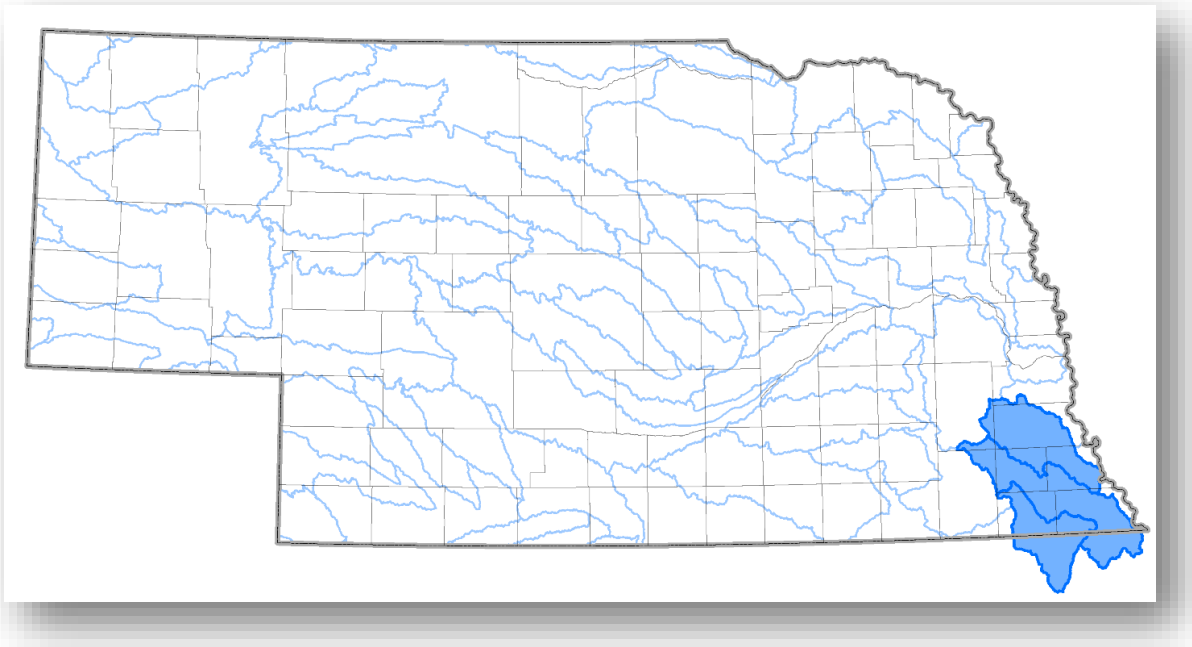
Fact Sheet
Upper Little Blue

Risk MAP Program Measures	
Population	35,817
NE % Population	1.9%
NVUE #'s	Valid = 616, Unverified = 2,110, and Unmapped = 68
Leverage Data	2009 NRCS South Central Nebraska LiDAR dataset. Hydrology already completed upstream of Clay County.
List of Communities	Adams County, Village of Alexandria, Village of Axtell, Village of Ayr, Village of Belvidere, Village of Bladen, City of Blue Hill, Village of Bruning, Village of Byron, Village of Campbell, Village of Carleton, Village of Chester, Clay County, City of Clay Center, Village of Davenport, City of Deshler, Village of Deweese, City of Edgar, City of Fairfield, Fillmore County, Franklin County, Village of Gilead, Village of Glenvil, City of Hastings, Village of Heartwell, City of Hebron, Village of Holstein, Jefferson County, Village of Juniata, Kearney County, Village of Kenesaw, Village of Lawrence, City of Minden, City of Nelson, Village of Nora, Village of Norman, Nuckolls County, Village of Oak, Village of Ohiowa, Village of Ong, Village of Prosser, Village of Roseland, Village of Ruskin, Village of Shickley, Village of Strang, Thayer County, Webster County
# of Communities	47 communities in the Upper Little Blue Watershed
Additional Notes:	

Watershed: Little Nemaha, South Fork Big Nemaha, Big Nemaha

HUC: 10240006, 10240007, 10240008

Population: 36,572 (Nebraska)



The Little Nemaha, Big Nemaha, and South Fork Big Nemaha watersheds are in the very southeastern-most part of Nebraska. Many communities in these watersheds have existed since before Nebraska became a state and have lived with the effects of flooding.

Throughout the early 1900s, the major streams were heavily channelized and straightened, in an effort to reclaim farm ground from natural floodplains. These actions left deeply eroded channels and drastically changed the dynamic of the stream system. Communities like Rulo, Falls City, and Preston have suffered from major floods, such as in 1949, where many residents went to sleep with rain in the forecast and woke up surrounded by water. Intense rainfall in 1993 also brought flooding to the rivers in these watersheds.

Johnson, Nemaha, Otoe, Pawnee, and Richardson counties were mapped prior to the acquisition of LiDAR coverage for this region. The addition of the 2011 NRCS and 2010 NRCS Eastern Nebraska LiDAR datasets will provide accurate elevation data in these counties.

Hydrology, Hydraulic, and Floodplain Mapping tasks will already be complete for the portions of the watersheds in Nemaha and Richardson counties, which were prioritized as Paper Inventory Reduction Projects beginning in FY2016.

Of the total CNMS Stream Miles, as of 2017 Q2, only 365 stream miles were classified as "Valid," while 1,453 stream miles were classified as "Unverified" or "Unknown." According to this data, only 20% of stream miles were classified as "Valid" in these watersheds.

Proposed Schedule of Work
Little Nemaha

FY2018 (Oct 2018 - Sept 2019)	
	KDP #0 Initiate Flood Risk Project?
FY2019 (Oct 2019 - Sept 2020)	
CERC Activity	Discovery Meeting for Little Nemaha Watershed *KDP #1 Continue Flood Risk Project?*
FY2020 (Oct 2020 - Sept 2021)	
Mapping Activity	Data Development Basic studies in Little Nemaha Watershed. Enhanced studies in: - Bennet Little Nemaha River Unnamed Tributary to Little Nemaha River - Talmage Little Nemaha River
Non-Regulatory	Non-Regulatory Product Development for Little Nemaha Watershed
CERC Activity	Flood Risk Review Meeting for Little Nemaha Watershed *KDP #2 Develop Preliminary FIRM?*
FY2021 (Oct 2021 - Sept 2024)	
Mapping Activity	Preliminary FIRM Development for Otoe County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Little Nemaha Watershed
CERC Activity	CCO Meeting Otoe County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Otoe County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Otoe County***

Fact Sheet
Little Nemaha

Risk MAP Program Measures	
Population	17,854
NE % Population	1.0%
NVUE #'s	Valid = 123, Unverified = 709, and Unmapped = 1
Leverage Data	2010 and 2011 NRCS LiDAR datasets.
List of Communities	City of Auburn, Village of Bennet, Village of Brock, Village of Burr, Cass County, Village of Cook, Village of Douglas, Village of Dunbar, Village of Eagle, Village of Elmwood, Village of Johnson, Johnson County, Village of Julian, Lancaster County, City of Lincoln, Village of Lorton, Village of Nemaha, Nemaha County, Village of Otoe, Otoe County, Village of Palmyra, Village of Panama, Richardson County, Village of Shubert, City of Syracuse, Village of Talmage, City of Tecumseh, Village of Unadilla
# of Communities	28 communities in the Little Nemaha Watershed
Additional Notes:	

Proposed Schedule of Work
South Fork Big Nemaha

FY2017 (Oct 2017 - Sept 2018)	
	KDP #0 Initiate Flood Risk Project?
FY2018 (Oct 2018 - Sept 2019)	
CERC Activity	Discovery Meeting for South Fork Big Nemaha Watershed *KDP #1 Continue Flood Risk Project?*
FY2019 (Oct 2019 - Sept 2020)	
Mapping Activity	Data Development Basic studies in South Fork Big Nemaha Watershed
Non-Regulatory	Non-Regulatory Product Development for South Fork Big Nemaha Watershed
CERC Activity	Flood Risk Review Meeting for South Fork Big Nemaha Watershed *KDP #2 Develop Preliminary FIRM?*
FY2020 (Oct 2020 - Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Pawnee County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for South Fork Big Nemaha Watershed
CERC Activity	CCO Meeting Pawnee County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Pawnee County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Pawnee County***

Fact Sheet
South Fork Big Nemaha

Risk MAP Program Measures	
Population	2,343
NE % Population	0.1%
NVUE #'s	Valid = 130, Unverified = 170, and Unmapped = 0
Leverage Data	2010 and 2011 NRCS LiDAR datasets.
List of Communities	Village of DuBois, Gage County, Johnson County, Village of Lewiston, Pawnee County, City of Pawnee City, Richardson County, Village of Salem, Village of Steinauer
# of Communities	9 communities in South Fork Big Nemaha Watershed
Additional Notes:	

Proposed Schedule of Work
Big Nemaha

FY2017 (Oct 2017 - Sept 2018)	
	KDP #0 Initiate Flood Risk Project?
FY2018 (Oct 2018 - Sept 2019)	
CERC Activity	Discovery Meeting for Big Nemaha Watershed *KDP #1 Continue Flood Risk Project?*
FY2019 (Oct 2019 - Sept 2020)	
Mapping Activity	Data Development Basic studies in Big Nemaha Watershed. Enhanced studies in: - Firth — Middle Branch Big Nemaha River - Tecumseh — North Fork Big Nemaha River Town Branch
Non-Regulatory	Non-Regulatory Product Development for Big Nemaha Watershed
CERC Activity	Flood Risk Review Meeting for Big Nemaha Watershed *KDP #2 Develop Preliminary FIRM?*
FY2021 (Oct 2021 - Sept 2024)	
Mapping Activity	Preliminary FIRM Development for Johnson County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Big Nemaha Watershed
CERC Activity	CCO Meeting Johnson County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Johnson County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Johnson County***

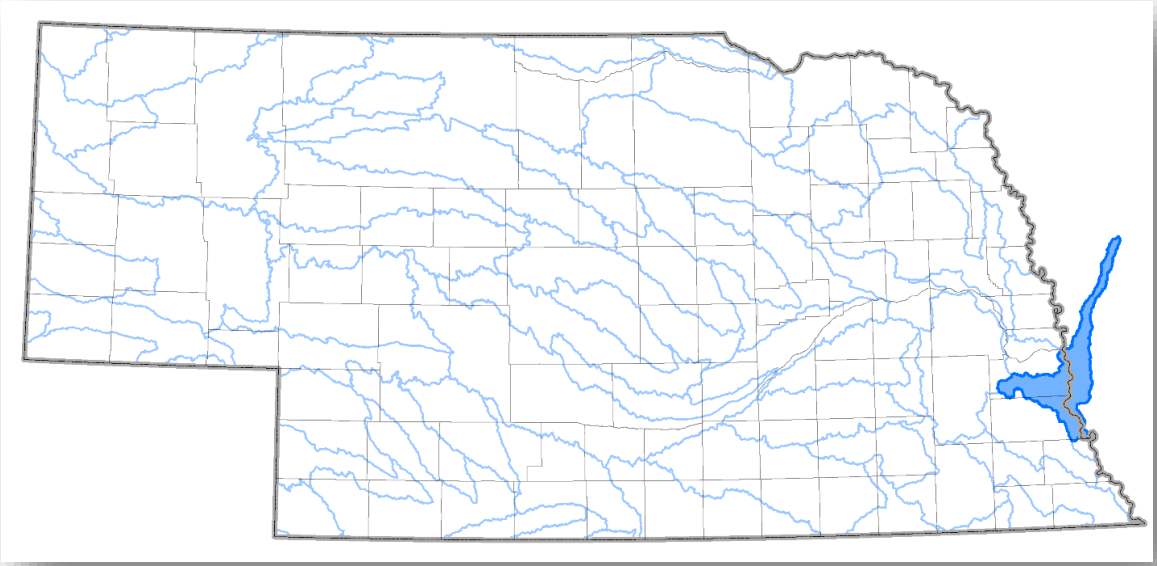
Fact Sheet
Big Nemaha

Risk MAP Program Measures	
Population	17,475
NE % Population	1.0%
NVUE #'s	Valid =112, Unverified = 571, and Unmapped = 2
Leverage Data	2010 and 2011 NRCS LiDAR datasets.
List of Communities	Village of Adams, Village of Barada, Village of Cortland, Village of Crab Orchard, Village of Dawson, Village of Elk Creek, City of Falls City, Village of Firth, Gage County, City of Humboldt, Village of Johnson, Johnson County, Lancaster County, Nemaha County, Otoe County, Village of Panama, Pawnee County, City of Pawnee City, Village of Preston, Richardson County, Village of Rulo, Village of Salem, Village of Shubert, Village of Stella, Village of Sterling, Village of Table Rock, City of Tecumseh, Village of Verdon
# of Communities	28 communities in the Big Nemaha Watershed
Additional Notes:	

Watershed: Keg-Weeping Water

HUC: 10240001

Population: 24,735 (Nebraska)



The Keg-Weeping Water watershed lies in both Nebraska and Iowa and is largely within Cass and Otoe Counties in Nebraska. Weeping Water Creek is responsible for significant flash flooding events and has caused flood problems for many communities along its banks. From Elmwood to Weeping Water to Union, many communities have suffered flood damage in the past and many have reserved portions of their floodplains for green space through the construction of parks and recreation areas.

In 1950, many streams in southeastern Nebraska overflowed their banks. At Union, Weeping Water Creek sent over 60,000 cfs rushing through town, destroying many bridges and railroads. The highest recorded crest at the Union streamgage occurred in 1993, and flooding caused major damage in Weeping Water, Union, and Nehawka. In June of 2010, heavy rains caught many unaware, including a family in Weeping Water whose children were sleeping in the basement when water broke through the windows and started rushing in. Communities continue to grow and development continues to occur in the watershed, meaning these communities will be faced with floodplain management decisions in the future. Flood risk products will assist community floodplain managers in making these decisions. The 2010 NRCS

Eastern Nebraska LiDAR dataset will provide accurate elevation data to produce floodplain boundaries and flood risk information to help communities mitigate the risk from flooding.

Proposed Schedule of Work
Keg- Weeping Water

FY2018 (Oct 2018 - Sept 2019)	
	KDP #0 Initiate Flood Risk Project?
FY2019 (Oct 2019 - Sept 2020)	
CERC Activity	Discovery Meeting for Keg- Weeping Water Watershed *KDP #1 Continue Flood Risk Project?*
FY2020 (Oct 2020 - Sept 2021)	
Mapping Activity	Data Development Basic studies in Keg- Weeping Water Watershed Enhanced Studies in: - Cass County — Missouri River - Otoe County — Missouri River - Avoca — South Branch Weeping Water Creek Tributary to South Branch Weeping Water Creek - Nebraska City — North Table Creek South Table Creek Tributary to South Table Creek East Tributary to South Table Creek West Tributary to South Table Creek Three Mile Creek Walnut Creek - Nehawka — Weeping Water Creek - Union — Weeping Water Creek - Weeping Water — Weeping Water Creek
Non-Regulatory	Non-Regulatory Product Development for Keg- Weeping Water Watershed
CERC Activity	Flood Risk Review Meeting for Keg- Weeping Water Watershed *KDP #2 Develop Preliminary FIRM?*
FY2021 (Oct 2021 - Sept 2024)	
Mapping Activity	Preliminary FIRM Development for part of Cass County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Keg- Weeping Water Watershed
CERC Activity	CCO Meeting for part of Cass County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for part of Cass County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for part of Cass County***

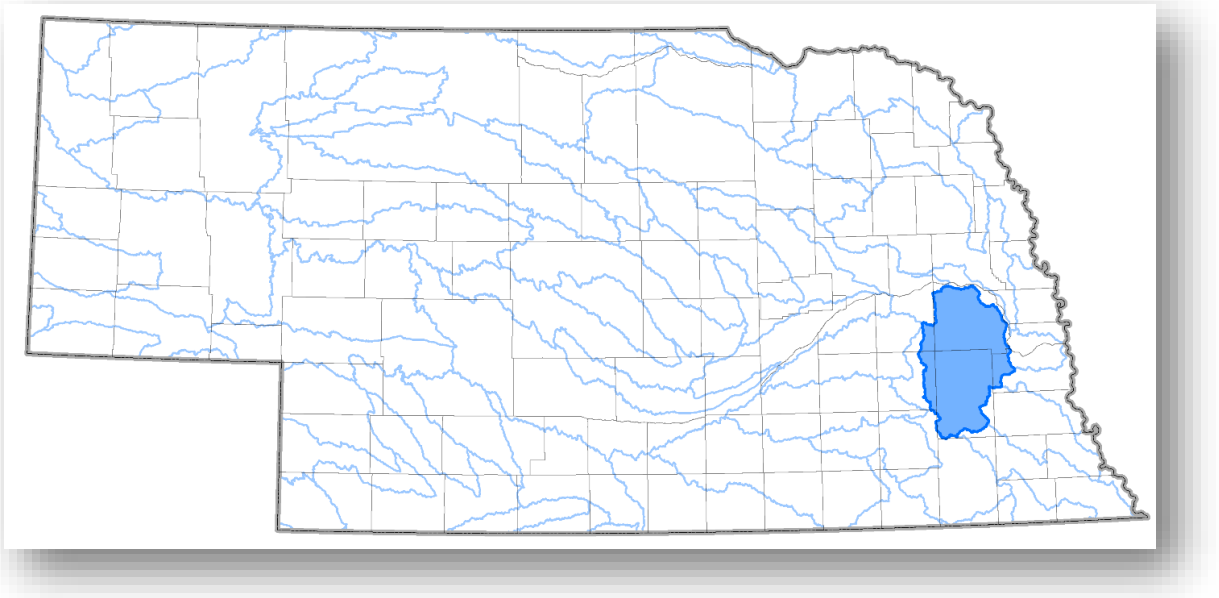
Fact Sheet
Keg- Weeping Water

Risk MAP Program Measures	
Population	24,735
NE % Population	1.3%
NVUE #'s	Valid = 116, Unverified = 352, and Unmapped = 17
Leverage Data	2010 NRCS Eastern Nebraska LiDAR dataset. Will utilize the Upper Mississippi River System Flow Frequency Study (UMRSFFS), for the Missouri River.
List of Communities	Village of Alvo, Village of Avoca, Cass County, Village of Elmwood, Village of Manley, Village of Murdock, Village of Murray, City of Nebraska City, Village of Nehawka, Nemaha County, Otoe County, City of Plattsmouth, Sarpy County, Village of Union, City of Weeping Water
# of Communities	15 communities in the Keg- Weeping Water Watershed
Additional Notes:	

Watershed: Salt

HUC: 10200203

Population: 305,934



The Salt watershed encompasses a significant portion of Lancaster and Saunders Counties. Communities in the watershed continue to grow, with subdivisions planned and lake developments thriving. Salt watershed is in continual need for updated flood hazard data to adapt to the changing flood risk. Citizens and communities have experienced a long history of devastating floods from the 1908 flood in Lancaster County to the 1963 flooding in Saunders County. Significant flooding also occurred in May of 2015, leaving large portions of Lancaster County under water, as shown in the photograph above.

Of the total CNMS Stream Miles, as of 2017 Q2, for Salt watershed only 719 stream miles were classified as “Valid,” while 1,316 stream miles were classified as “Unverified” or “Unknown.” According to this data, only 35% of stream miles were classified as “Valid” for Salt watershed which contains nearly 17% of Nebraska’s total population.

Producing flood risk products for this watershed could engage thousands of people in a discussion about mitigating flood risk. Communities in this region are very proactive, have strong floodplain management programs, and engage their citizens in flood risk discussions.

Proposed Schedule of Work
Salt

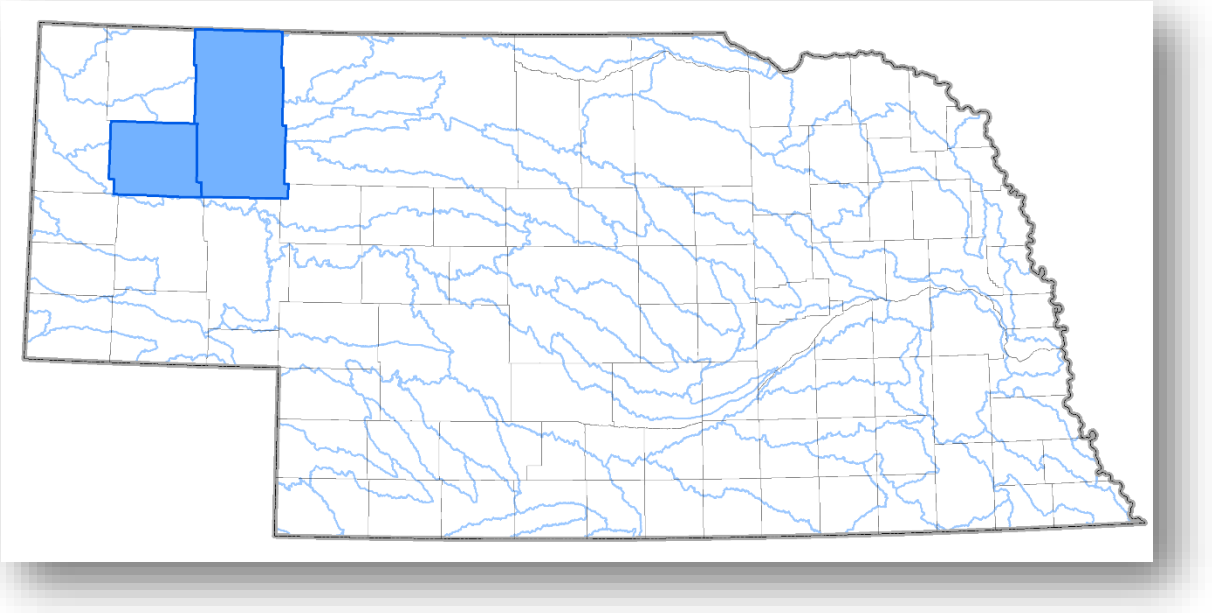
FY2018 (Oct 2018 - Sept 2019)	
	KDP #0 Initiate Flood Risk Project?
FY2019 (Oct 2019 - Sept 2020)	
CERC Activity	Discovery Meeting for Salt Watershed *KDP #1 Continue Flood Risk Project?*
FY2020 (Oct 2020 - Sept 2021)	
Mapping Activity	Data Development Basic studies in Salt Watershed. Enhanced studies in: - Lancaster County — Haines Branch - Ashland — Clear Creek Salt Creek Wahoo Creek - Prague — Cottonwood Creek Tributary to Cottonwood Creek - Yutan — Clear Creek Upper Clear Creek - Hickman — Hickman Branch Hickman Branch Tributary - Raymond — Oak Creek - Waverly — Ash Hollow Ditch End Run Unnamed Tributary 2
Non-Regulatory	Non-Regulatory Product Development for Salt Watershed
CERC Activity	Flood Risk Review Meeting for Salt Watershed *KDP #2 Develop Preliminary FIRM?*
FY2022 (Oct 2022 - Sept 2025)	
Mapping Activity	Preliminary FIRM Development for part of Lancaster County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Salt Watershed
CERC Activity	CCO Meeting part of Lancaster County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period part of Lancaster County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for part of Lancaster County***

Fact Sheet
Salt

Risk MAP Program Measures	
Population	305,934
NE % Population	16.8%
NVUE #'s	Valid = 719, Unverified = 1247, and Unmapped = 69
Leverage Data	2010 NIROC LiDAR dataset, and the future 2017 NIROC LiDAR dataset.
List of Communities	Village of Alvo, City of Ashland, Village of Bee, Village of Brainard, Butler County, Cass County, Village of Cedar Bluffs, Village of Ceresco, Village of Colon, City of Crete, Village of Davey, Village of Denton, Village of Dwight, Village of Eagle, Gage County, Village of Garland, Village of Greenwood, Village of Hallam, City of Hickman, Village of Ithaca, Lancaster County, City of Lincoln, Village of Malcolm, Village of Malmo, Village of Mead, Village of Memphis, Village of Morse Bluff, Village of Murdock, Village of Panama, Village of Pleasant Dale, Village of Prague, Village of Raymond, Village of Roca, Saline County, Saunders County, Seward County, Village of Sprague, Village of Valparaiso, City of Wahoo, City of Waverly, Village of Weston, City of Yutan
# of Communities	42 communities in Salt Watershed
Additional Notes:	

Watersheds - County Paper Inventory Reduction Projects (PIRs): Box Butte, Sheridan

Population: 17,161



Located in the northwestern portion of Nebraska, Box Butte and Sheridan counties contain some of the oldest paper FIRMs in the state. Countywide mapping projects were completed in the 1970s, with Box Butte becoming effective in 1977 and Sheridan being converted by letter in 2008.

Despite the counties being sparsely populated, the city of Alliance, with a population of 8,519, contains several streams draining an area larger than one square mile. LiDAR data in this region will be acquired by 2018, which will provide accurate elevation data for these counties. PIRs for Box Butte and Sheridan will complete Nebraska's objective of converting all counties with regulatory products to digital format.

Proposed Schedule of Work
Box Butte

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project? *KDP #1 Continue Flood Risk Project?*
FY2020 (Oct 2020- Sept 2021)	
Mapping Activity	Data Development Basic studies in Box Butte County
Non-Regulatory	Non-Regulatory Product Development for Box Butte County
CERC Activity	Flood Risk Review Meeting for Box Butte County *KDP #2 Develop Preliminary FIRM?*
FY2021 (Oct 2021- Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Box Butte County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Box Butte County
CERC Activity	CCO Meeting Box Butte County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Box Butte County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Box Butte County***

Fact Sheet
Box Butte

Risk MAP Program Measures	
Population	11,481
NE % Population	0.6%
NVUE #'s	Valid = 1, Unverified = 630, and Unmapped = 419
Leverage Data	LiDAR.
List of Communities	City of Alliance, Box Butte County, Village of Hemingford
# of Communities	3 communities in Box Butte County
Additional Notes:	

Proposed Schedule of Work
Sheridan

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project? *KDP #1 Continue Flood Risk Project?*
FY2020 (Oct 2020- Sept 2021)	
Mapping Activity	Data Development Basic studies in Sheridan County
Non-Regulatory	Non-Regulatory Product Development for Sheridan County
CERC Activity	Flood Risk Review Meeting for Sheridan County *KDP #2 Develop Preliminary FIRM?*
FY2021 (Oct 2021- Sept 2023)	
Mapping Activity	Preliminary FIRM Development for Sheridan County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Sheridan County
CERC Activity	CCO Meeting Sheridan County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period Sheridan County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Sheridan County***

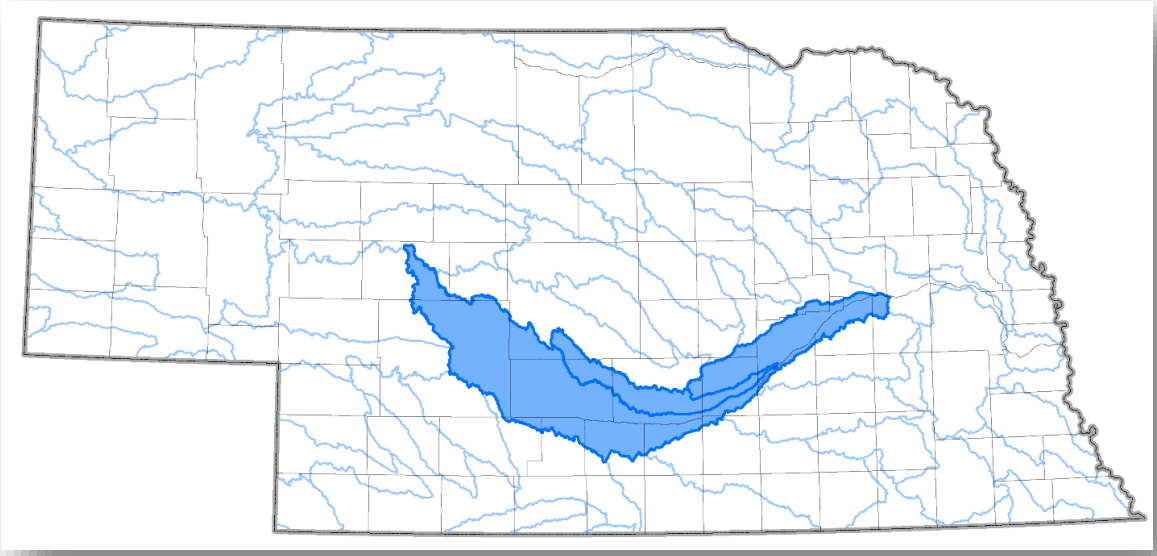
Fact Sheet
Sheridan

Risk MAP Program Measures	
Population	6,041
NE % Population	0.3%
NVUE #'s	Valid = 1, Unverified = 1,359, and Unmapped = 1,082
Leverage Data	LiDAR coverage by 2018.
List of Communities	Village of Clinton, City of Gordon, City of Hay Springs, City of Rushville, Sheridan County
# of Communities	5 communities in Sheridan County
Additional Notes:	

Watersheds: Middle Platte - Buffalo, Wood, Middle Platte - Prairie

HUC: 10200101, 10200102, 10200103

Population: 147,161



The Middle Platte - Buffalo, Wood, and Middle Platte - Prairie watersheds are located in central Nebraska and encompass the middle portion of the Platte River. NeDNR proposes that these watersheds be mapped concurrently due to their location along the Platte River and the fact that prominent communities with enhanced studies lie between multiple watersheds, such as Grand Island and Kearney.

The major risk for these three watersheds lies along the Platte River. Aside from the fact that this portion of the Platte River is the only portion of the river that is not continuously modeled, none of the existing detailed studies take ice jam effects into consideration. Due to its size and complexity, NeDNR proposes working with the USACE to develop a continuous model on this stretch of the Platte River similar to the study conducted on the Lower Platte River in 2003.

Of the total CNMS Stream Miles, as of 2017 Q2, for Middle Platte - Buffalo, Middle Platte - Prairie, and Wood watersheds only 997 stream miles were classified as “Valid,” while 5,676 stream miles were classified as “Unverified” or “Unknown.” According to this data, only 17.5% of stream miles were classified as “Valid” for these watersheds.

This region would benefit from using the available 2009 South Central and 2011 NRCS LiDAR coverage. Due to the flat topography, changes in elevation would be much more accurately represented using LiDAR rather than previous methods, such as contour maps. Accounting for 25% of all LOMCs in Nebraska, a significant reduction in the number of LOMCs would be expected if available LiDAR was utilized in these watersheds.

These watersheds may also be prime candidates for developing non-regulatory Risk MAP products. Hall County has a significant amount of GIS data, including building footprints, which may provide a more accurate inventory for Flood Risk reporting.

Proposed Schedule of Work
Middle Platte - Buffalo

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project?
FY2020 (Oct 2020 - Sept 2021)	
CERC Activity	Discovery Meeting for Middle Platte - Buffalo Watershed *KDP #1 Continue Flood Risk Project?*
FY2021 (Oct 2021 - Sept 2022)	
Mapping Activity	Data Development Basic studies in Middle Platte - Buffalo Watershed Enhanced studies in: - Hall County — Middle Channel Platte River, South Channel Platte River - Lexington — Platte River, Spring Creek - Gothenburg — Platte River, North Channel Platte River
Flood Risk	Flood Risk Product Development for Middle Platte - Buffalo Watershed
CERC Activity	Flood Risk Review Meeting for Middle Platte - Buffalo Watershed *KDP #2 Develop Preliminary FIRM?*
FY2022 (Oct 2022 - Sept 2025)	
Mapping Activity	Preliminary FIRM Development for Dawson County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Middle Platte - Buffalo Watershed
CERC Activity	CCO Meeting for Dawson County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Dawson County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Dawson County***
FY2025 (Oct 2025 - Sept 2027)	
Mapping Activity	Preliminary FIRM Development for Kearney and Phelps Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Middle Platte - Buffalo Watershed
CERC Activity	CCO Meeting for Kearney and Phelps Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Kearney and Phelps Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Kearney and Phelps Counties***

Fact Sheet
Middle Platte - Buffalo

Risk MAP Program Measures	
Population	63,119
NE % Population	3.5%
NVUE #'s	Valid = 653, Unverified = 1,336, and Unmapped = 1,366
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Adams County, Village of Axtell, Village of Bertrand, Village of Brady, Buffalo County, City of Cozad, Custer County, Dawson County, Village of Doniphan, Village of Elm Creek, Village of Elwood, Village of Eustis, Village of Farnam, Frontier County, Village of Funk, Gosper County, City of Gothenburg, City of Grand Island, Hall County, Hamilton County, City of Holdrege, City of Kearney, Kearney County, City of Lexington, Lincoln County, Logan County, Village of Loomis, Village of Maxwell, McPherson County, Merrick County, City of North Platte, Village of Overton, Phelps County, Village of Phillips, Village of Prosser, Village of Smithfield
# Communities	36 Communities in the Middle Platte - Buffalo Watershed
Additional Notes:	

Proposed Schedule of Work
Wood

FY2020 (Oct 2020 - Sept 2021)	
	KDP #0 Initiate Flood Risk Project?
FY2021 (Oct 2021 - Sept 2022)	
CERC Activity	Discovery Meeting for Wood Watershed *KDP #1 Continue Flood Risk Project?*
FY2022 (Oct 2022 - Sept 2023)	
Mapping Activity	Data Development Basic studies in Wood Watershed Enhanced Studies in: - Grand Island Wood River Wood River Diversion Channel - Wood River Wood River
Non-Regulatory	Non-Regulatory Product Development for Wood Watershed
CERC Activity	Flood Risk Review Meeting for Wood Watershed *KDP #2 Develop Preliminary FIRM?*

Fact Sheet
Wood

Risk MAP Program Measures	
Population	52,002
NE % Population	2.8%
NVUE #'s	Valid = 269, Unverified = 599, and Unmapped = 116
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Village of Alda, Village of Amherst, Buffalo County, Custer County, Dawson County, Village of Eddyville, City of Gibbon, City of Grand Island, Hall County, City of Kearney, Merrick County, Village of Miller, Village of Oconto, Village of Riverdale, Village of Shelton, Village of Sumner, City of Wood River
# Communities	17 Communities in the Wood Watershed
Additional Notes:	

Proposed Schedule of Work
Middle Platte - Prairie

FY2020 (Oct 2020 - Sept 2021)	
	KDP #0 Initiate Flood Risk Project?
FY2021 (Oct 2021 - Sept 2022)	
CERC Activity	Discovery Meeting for Middle Platte - Prairie Watershed *KDP #1 Continue Flood Risk Project?*
FY2022 (Oct 2022 - Sept 2023)	
Mapping Activity	Data Development Basic studies in Middle Platte - Prairie Watershed Enhanced Studies in: - Grand Island: Silver Creek, Prairie Creek, Moores Creek - Central City: Warm Slough, Trouble Creek, Platte River - Stromsburg: Big Blue River
Flood Risk	Flood Risk Product Development for Middle Platte - Prairie Watershed
CERC Activity	Flood Risk Review Meeting for Middle Platte - Prairie Watershed *KDP #2 Develop Preliminary FIRM?*
FY2023 (Oct 2023- Sept 2026)	
Mapping Activity	Preliminary FIRM Development for Hall, Merrick, and part of Polk Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Middle Platte - Prairie Watershed
CERC Activity	CCO Meeting for Hall, Merrick, and part of Polk Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Hall, Merrick, and part of Polk Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Hall, Merrick, and part of Polk Counties***

Fact Sheet
Middle Platte - Prairie

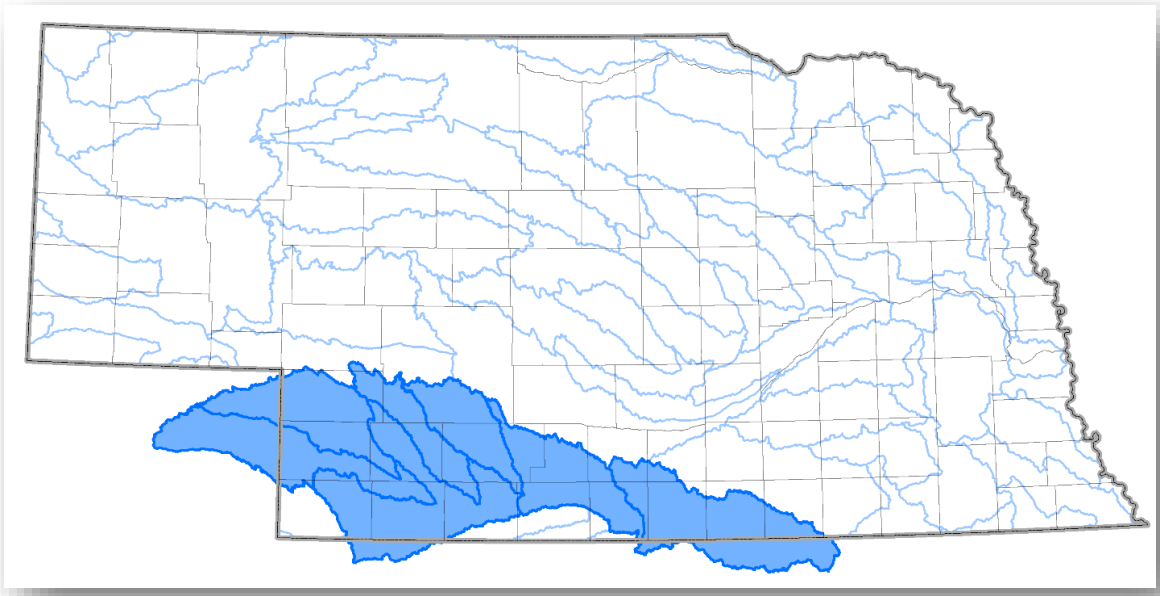
Risk MAP Program Measures	
Population	37,869
NE % Population	2.1%
NVUE #'s	Valid = 75, Unverified = 915, and Unmapped = 344
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Village of Alda, Village of Bellwood, Buffalo County, Butler County, Village of Cairo, City of Central City, Village of Chapman, Village of Clarks, Colfax County, City of Columbus, Village of Duncan, City of Grand Island, Hall County, Hamilton County, Village of Hordville, Howard County, Village of Marquette, Merrick County, Nance County, Platte County, Polk County, Village of Silver Creek, City of Wood River
# Communities	23 Communities in the Middle Platte - Prairie Watershed
Additional Notes:	

Watershed: Upper Republican, Frenchman, Stinking Water, Red Willow, Medicine, Harlan County Reservoir*, Middle Republican*

HUC: 10250004, 10250005, 10250006, 10250007, 10250008, 10250009, 10250016

Population: 49,748 (Nebraska)

*Sequenced for FY2023; supporting data is not included



All seven watersheds in this area are part of the Republican River basin. Many of the counties in this area were digitized during the Map Modernization program. Communities in this area often recall the major 1935 flood event where several days of continuous rain caused the Republican River and many of its tributaries to expand eightfold. The floodwaters took the lives of 113 people, destroyed 341 miles of highway, washed out 307 bridges, and caused nearly $500 million of damage (2017 dollars). The flood event also was among the first deployments of large scale federal response, which set the stage for federal involvement in future disasters.

While many of the tributaries were found to be “Valid” from the CNMS Re-Validation check, as of the 2017 Q2 CNMS database, only 6 miles of the Republican River were determined to be “Valid,” the majority of which are from the Cambridge detailed study. 284 of a total 290 miles, or 98% of the Republican River in Nebraska is marked as

"Unverified." The counties in the Republican River basin were mapped with effective dates prior to or as of 2009, before LiDAR coverage was completed for the area. The addition of the NRCS 2009 South Central Nebraska and 2011 NRCS LiDAR datasets will provide more accurate elevation data for this portion of the state.

Proposed Schedule of Work
Upper Republican

FY2021 (Oct 2021 - Sept 2022)	
	KDP #0 Initiate Flood Risk Project?
FY2022 (Oct 2022 - Sept 2023)	
CERC Activity	Discovery Meeting for Upper Republican Watershed *KDP #1 Continue Flood Risk Project?*
FY2023 (Oct 2023 - Sept 2024)	
Mapping Activity	Data Development Basic studies in Upper Republican Watershed Enhanced Studies in: - Indianola — Coon Creek - McCook — Republican River, Kelley Creek, East Fork Kelley Creek
Flood Risk	Flood Risk Product Development for Upper Republican Watershed
CERC Activity	Flood Risk Review Meeting for Upper Republican Watershed *KDP #2 Develop Preliminary FIRM?*
FY2024 (Oct 2024 - Sept 2027)	
Mapping Activity	Preliminary FIRM Development for Hayes, Hitchcock, and Red Willow Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Upper Republican Watershed
CERC Activity	CCO Meeting for Hayes, Hitchcock, and Red Willow Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Hayes, Hitchcock, and Red Willow Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Hayes, Hitchcock, and Red Willow Counties***

Fact Sheet
Upper Republican

Risk MAP Program Measures	
Population	15,344
NE % Population	0.8%
NVUE #'s	Valid = 1,100, Unverified = 491, and Unmapped = 253
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Village of Bartley, City of Benkelman, City of Cambridge, Chase County, Village of Culbertson, Dundy County, Frontier County, Furnas County, Hayes County, Village of Hayes Center, Hitchcock County, City of Indianola, Lincoln County, City of McCook, Perkins County, Red Willow County, Village of Stratton, Village of Trenton
# Communities	18 Communities in Upper Republican Watershed
Additional Notes:	

Proposed Schedule of Work
Frenchman

FY2021 (Oct 2021 - Sept 2022)	
	KDP #0 Initiate Flood Risk Project?
FY2022 (Oct 2022 - Sept 2023)	
CERC Activity	Discovery Meeting for Frenchman Watershed *KDP #1 Continue Flood Risk Project?*
FY2023 (Oct 2023 - Sept 2024)	
Mapping Activity	Data Development Basic studies in Frenchman Watershed
Flood Risk	Flood Risk Product Development for Frenchman Watershed
CERC Activity	Flood Risk Review Meeting for Frenchman Watershed *KDP #2 Develop Preliminary FIRM?*
FY2024 (Oct 2024 - Sept 2027)	
Mapping Activity	Preliminary FIRM Development for Chase County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Frenchman Watershed
CERC Activity	CCO Meeting for Chase County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Chase County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Chase County***

Fact Sheet
Frenchman

Risk MAP Program Measures	
Population	5,015
NE % Population	0.3%
NVUE #'s	Valid = 174, Unverified = 283, and Unmapped = 245
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Chase County, Village of Culbertson, Dundy County, Village of Hamlet, Hayes County, Hitchcock County, City of Imperial, Village of Lamar, Village of Palisade, Village of Wauneta
# Communities	10 Communities in the Frenchman Watershed
Additional Notes:	

Proposed Schedule of Work
Stinking Water

FY2021 (Oct 2021 - Sept 2022)	
	KDP #0 Initiate Flood Risk Project?
FY2022 (Oct 2022 - Sept 2023)	
CERC Activity	Discovery Meeting for Stinking Water Watershed *KDP #1 Continue Flood Risk Project?*
FY2023 (Oct 2023 - Sept 2024)	
Mapping Activity	Data Development Basic studies in Stinking Water Watershed
Flood Risk	Flood Risk Product Development for Stinking Water Watershed
CERC Activity	Flood Risk Review Meeting for Stinking Water Watershed *KDP #2 Develop Preliminary FIRM?*
FY2024 (Oct 2024 - Sept 2027)	
Mapping Activity	Preliminary FIRM Development for Perkins County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Stinking Water Watershed
CERC Activity	CCO Meeting for Perkins County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Perkins County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Perkins County***

Fact Sheet
Stinking Water

Risk MAP Program Measures	
Population	3,613
NE % Population	0.2%
NVUE #'s	Valid = 164, Unverified = 232, and Unmapped = 501
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Chase County, Village of Elsie, City of Grant, Hayes County, City of Imperial, Keith County, Village of Madrid, Perkins County, Village of Venango
# Communities	9 Communities in the Stinking Water Watershed
Additional Notes:	

Proposed Schedule of Work
Red Willow

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project?
FY2020 (Oct 2020 - Sept 2021)	
CERC Activity	Discovery Meeting for Red Willow Watershed *KDP #1 Continue Flood Risk Project?*
FY2021 (Oct 2021 - Sept 2022)	
Mapping Activity	Data Development Basic studies in Red Willow Watershed
Flood Risk	Flood Risk Product Development for Red Willow Watershed
CERC Activity	Flood Risk Review Meeting for Red Willow Watershed *KDP #2 Develop Preliminary FIRM?*

Fact Sheet
Red Willow

Risk MAP Program Measures	
Population	1,618
NE % Population	0.1%
NVUE #'s	Valid = 328, Unverified = 129, and Unmapped = 238
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	Village of Elsie, Frontier County, Hayes County, Keith County, Lincoln County, Perkins County, Red Willow County, Village of Wallace
# Communities	8 Communities in the Red Willow Watershed
Additional Notes:	

Proposed Schedule of Work
Medicine

FY2019 (Oct 2019 - Sept 2020)	
	KDP #0 Initiate Flood Risk Project?
FY2020 (Oct 2020 - Sept 2021)	
CERC Activity	Discovery Meeting for Medicine Watershed *KDP #1 Continue Flood Risk Project?*
FY2021 (Oct 2021 - Sept 2022)	
Mapping Activity	Data Development Basic studies in Medicine Watershed
Flood Risk	Flood Risk Product Development for Medicine Watershed
CERC Activity	Flood Risk Review Meeting for Medicine Watershed *KDP #2 Develop Preliminary FIRM?*
FY2024 (Oct 2024 - Sept 2027)	
Mapping Activity	Preliminary FIRM Development for Frontier County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Medicine Watershed
CERC Activity	CCO Meeting for Frontier County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Frontier County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Frontier County***

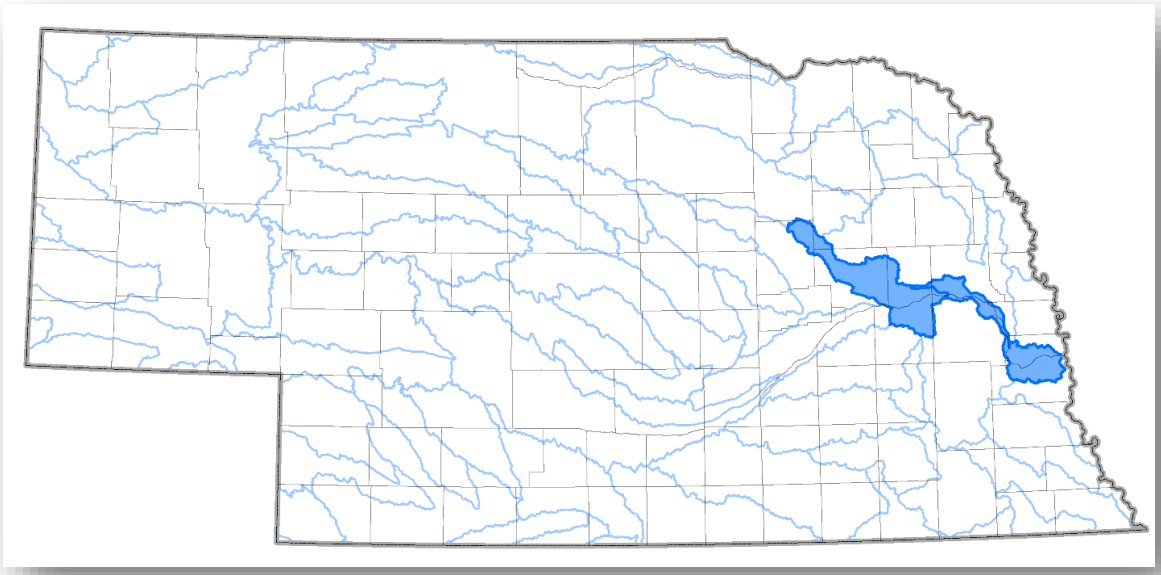
Fact Sheet
Medicine

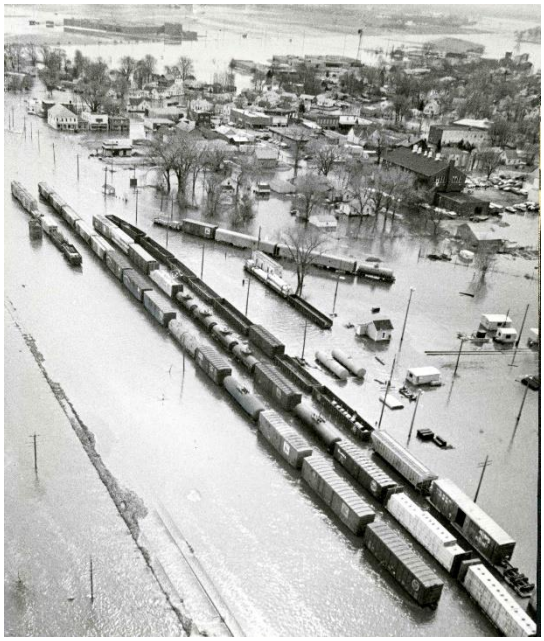
Risk MAP Program Measures	
Population	3231
NE % Population	0.2%
NVUE #'s	Valid = 397, Unverified = 170, and Unmapped = 230
Leverage Data	2009 South Central Nebraska and 2011 NRCS LiDAR coverage.
List of Communities	City of Cambridge, City of Curtis, Frontier County, Furnas County, Hayes County, Lincoln County, Village of Maywood, Village of Moorefield, Red Willow County, Village of Stockville, Village of Wellfleet
# Communities	11 Communities in the Medicine Watershed
Additional Notes:	

Watershed: Lower Platte - Shell, Lower Platte

HUC: 10200201, 10200202

Population: 61,165





The Lower Platte – Shell and Lower Platte watersheds encompass a significant portion of the Platte River and include many large communities that have an extensive history of flooding, including flood damage from ice jams. Major flood events have been recorded since the 1800s including 1883, 1908, 1912, 1935, 1944, 1947, 1978, 1960, 1962, 1967, 1978, 1984, 1993, 2001, 2013, and 2016, some of which have involved significant ice jams.

In 1978, major ice jams flooded the entire town of Valley, most of North Bend, and a significant portion of Fremont. Valley was entirely evacuated and nearly 1,600 homes were damaged or destroyed. Over $250 million of damage (2017 dollars) occurred during this event.

These watersheds face a number of floodplain development challenges. Communities are growing rapidly and new business is expanding into these areas. Large industrial facilities in Fremont are located in the floodplain, and along the Lower Platte River, a

history of aggregate mining has created lakes that are being turned into residential developments. Most of these "sandpit lake" developments are located immediately adjacent to the river and pose significant flood risk issues for floodplain managers.

These watersheds contain LiDAR coverage from the 2010, 2011, and 2012 NRCS datasets and the 2010 NIROC dataset. LiDAR will provide valuable elevation data resulting in increased knowledge of the flood risk in this area.

Proposed Schedule of Work
Lower Platte - Shell

FY2020 (Oct 2020 - Sept 2021)	
	KDP #0 Initiate Flood Risk Project?
FY2021 (Oct 2021 - Sept 2022)	
CERC Activity	Discovery Meeting for Lower Platte - Shell Watershed *KDP #1 Continue Flood Risk Project?*
FY2022 (Oct 2022 - Sept 2023)	
Mapping Activity	Data Development Basic studies in Lower Platte - Shell Watershed Enhanced Studies in: - Platte and Colfax Counties — Shell Creek - Butler County — Platte River - Platte Center — Elm Creek - Schuyler — Shell Creek Right Overbank - Columbus — Lost Creek Loup River
Flood Risk	Flood Risk Product Development for Lower Platte - Shell Watershed
CERC Activity	Flood Risk Review Meeting for Lower Platte - Shell Watershed *KDP #2 Develop Preliminary FIRM?*
FY2023 (Oct 2023 - Sept 2026)	
Mapping Activity	Preliminary FIRM Development for Colfax, part of Platte, and part of Butler Counties *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lower Platte - Shell Watershed
CERC Activity	CCO Meeting for Colfax, part of Platte, and part of Butler Counties *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for Colfax, part of Platte, and part of Butler Counties *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for Colfax, part of Platte, and part of Butler Counties***

Fact Sheet
Lower Platte - Shell

Risk MAP Program Measures	
Population	28,934
NE % Population	1.6%
NVUE #'s	Valid = 278, Unverified = 450, and Unmapped = 146
Leverage Data	LiDAR coverage from the 2010, 2011, and 2012 NRCS datasets and the 2010 NIROC dataset.
List of Communities	Village of Abie, Antelope County, Village of Bellwood, Boone County, Village of Bruno, Butler County, Colfax County, City of Columbus, City of David City, Dodge County, Village of Lindsay, Village of Linwood, Madison County, City of Newman Grove, City of North Bend, Village of Octavia, Platte County, Village of Platte Center, Village of Richland, Village of Rogers, Saunders County, City of Schuyler, Village of Tarnov
# Communities	23 Communities in the Lower Platte - Shell Watershed
Additional Notes:	

Proposed Schedule of Work
Lower Platte

FY2020 (Oct 2020 - Sept 2021)	
	KDP #0 Initiate Flood Risk Project?
FY2021 (Oct 2021 - Sept 2022)	
CERC Activity	Discovery Meeting for Lower Platte Watershed *KDP #1 Continue Flood Risk Project?*
FY2022 (Oct 2022 - Sept 2023)	
Mapping Activity	Data Development Basic studies in Lower Platte Watershed Enhanced Study in: - Lower Platte Watershed Platte River
Flood Risk	Flood Risk Product Development for Lower Platte Watershed
CERC Activity	Flood Risk Review Meeting for Lower Platte Watershed *KDP #2 Develop Preliminary FIRM?*
FY2023 (Oct 2023 - Sept 2026)	
Mapping Activity	Preliminary FIRM Development for part of Dodge County *KDP #3 Issue Preliminary Products?*
CERC Activity	Resilience Meeting for Lower Platte Watershed
CERC Activity	CCO Meeting for part of Dodge County *KDP #4 Initiate Appeals Period?*
Regulatory Activity	Appeals Period for part of Dodge County *KDP#5 Issue Letter of Final Determination?*
Regulatory Activity	Issue LFD ***Regulatory Products for part of Dodge County***

Fact Sheet
Lower Platte

Risk MAP Program Measures	
Population	32,439
NE % Population	1.8%
NVUE #'s	Valid = 129, Unverified = 258, and Unmapped = 161
Leverage Data	LiDAR coverage from the 2010, 2011, and 2012 NRCS datasets and the 2010 NIROC dataset.
List of Communities	City of Bellevue, Cass County, Village of Cedar Creek, Colfax County, Dodge County, Douglas County, City of Fremont, City of Gretna, Village of Inglewood, Village of Leshara, City of Louisville, Village of Morse Bluff, Village of Murdock, Village of Murray, City of North Bend, City of Papillion, City of Plattsmouth, Sarpy County, Saunders County, City of Schuyler, Village of South Bend, City of Springfield, City of Valley, City of Yutan
# Communities	24 Communities in the Lower Platte Watershed
Additional Notes:	

Section 3 – Key Decision Point

NeDNR Key Decision Point Summary (FY2018 through FY2022)					
Key Decision Point (KDP)	FY2018	FY2019	FY2020	FY2021	FY 2022
KDP 0 **(Start Discovery?)**	Little Nemaha (LN) Keg - Weeping Water (KWW) Salt (S)	Lower North Platte (LNP) Lower South Platte (LSP) Middle Platte Buffalo (MPB) Red Willow (RW) Medicine (M)	Wood (W) Middle Platte - Prairie (MPP) Lower Platte - Shell (LPS) Lower Platte (LP)	Upper Republican (UR) Frenchman (F) Stinking Water (SW)	
KDP 1 **(Develop Data?)**	Middle Big Blue (MBB) Turkey (T) South Fork Big Nemaha (SFBN) Big Nemaha (BN)	Little Nemaha (LN) Keg - Weeping Water (KWW) Salt (S)	Lower North Platte (LNP) Lower South Platte (LSP) Middle Platte Buffalo (MPB) Red Willow (RW) Medicine (M)	Wood (W) Middle Platte - Prairie (MPP) Lower Platte - Shell (LPS) Lower Platte (LP)	Upper Republican (UR) Frenchman (F) Stinking Water (SW)
KDP 2 **(Develop Preliminary FIRM)**	Upper Elkhorn (UE) North Fork Elkhorn (NFE) Lower Elkhorn (LE) MNP - SB - Bayard, Bridgeport Lewis and Clark Lake (LCL)	Upper Elkhorn (UE) Middle Big Blue (MBB) Turkey (T) South Fork Big Nemaha (SFBN) Big Nemaha (BN)	Little Nemaha (LN) Keg - Weeping Water (KWW) Salt (S) Box Butte - PIR* Sheridan - PIR*	Lower North Platte (LNP) Lower South Platte (LSP) Middle Platte Buffalo (MPB) Red Willow (RW) Medicine (M)	Wood (W) Middle Platte - Prairie (MPP) Lower Platte - Shell (LPS) Lower Platte (LP)
KDP 3 **(Issue Preliminary FIRMs?)**	ULB - Thayer and part of Nuckolls LE - Cuming LC - Wayne Boone - PIR* Custer - PIR*	NFE - Pierce LE - Stanton and part of Dodge MNP - SB - Bridgeport, Bayard LCL - Dixon, Cedar	UBB - Polk and Butler UE - Part of Holt, Antelope, Madison MBB - Gage T - Fillmore, Saline SFBN - Pawnee	LN - Otoe BN - Johnson KWW - Part of Cass Box Butte - PIR* Sheridan - PIR*	LNP - Lincoln LSP - Keith S - Part of Lancaster MPB - Dawson
KDP 4 **(Initiate Appeal Period?)**	UBB - Seward Cheyenne - PIR* Deuel - PIR* Scotts Bluff - PIR*	ULB - Thayer and part of Nuckolls LE - Cuming LC - Wayne Boone - PIR* Custer - PIR*	NFE - Pierce LE - Stanton and part of Dodge MNP - SB - Bridgeport, Bayard LCL - Dixon, Cedar	UBB - Polk and Butler UE - Part of Holt, Antelope, Madison MBB - Gage T - Fillmore, Saline SFBN - Pawnee	LN - Otoe BN - Johnson KWW - Part of Cass Box Butte - PIR* Sheridan - PIR*
KDP 5 **(Issue Letter of Final Determination?)**	UBB - Seward Burt - PIR* Nemaha - PIR* Richardson - PIR* Cheyenne - PIR* Deuel - PIR* Scotts Bluff - PIR*	ULB - Thayer and part of Nuckolls LC - Wayne LE - Cuming Boone - PIR* Custer - PIR*	NFE - Pierce LE - Stanton and part of Dodge MNP - SB - Bridgeport, Bayard LCL - Dixon, Cedar	UBB - Polk and Butler UE - Part of Holt, Antelope, Madison MBB - Gage T - Fillmore, Saline SFBN - Pawnee	LN - Otoe BN - Johnson KWW - Part of Cass Box Butte - PIR* Sheridan - PIR*