

Long Pine Creek Watershed Stakeholder Meeting
Chandler Schmidt
Watershed Coordinator – MNNRD
July 18th, 2019



Welcome!

Introductions

- Name
- Affiliation/Role
- *Please Sign-In*

Tonight's Objective:

- Update you on Long Pine Creek Watershed (LPCW) Project/s, Progress and LPCW Management.

Tonight's Agenda

- LPCW Background
- SD-14 Rehabilitation Project
 - Phase I
 - Phase II
- LPCW Management
- LPCW Partners
- LPCW Grants
- Dana Krueger – Natural Resources Supervisor, MNNRD
 - Woody Biomass Utilization (WBU), Projects and NSWCP Programs
- Adam Rupe – Natural Resource Specialist, JEO Consulting Group
 - Watershed and Flood Prevention Operations (WFPO)
NRCS Watershed Work Plan

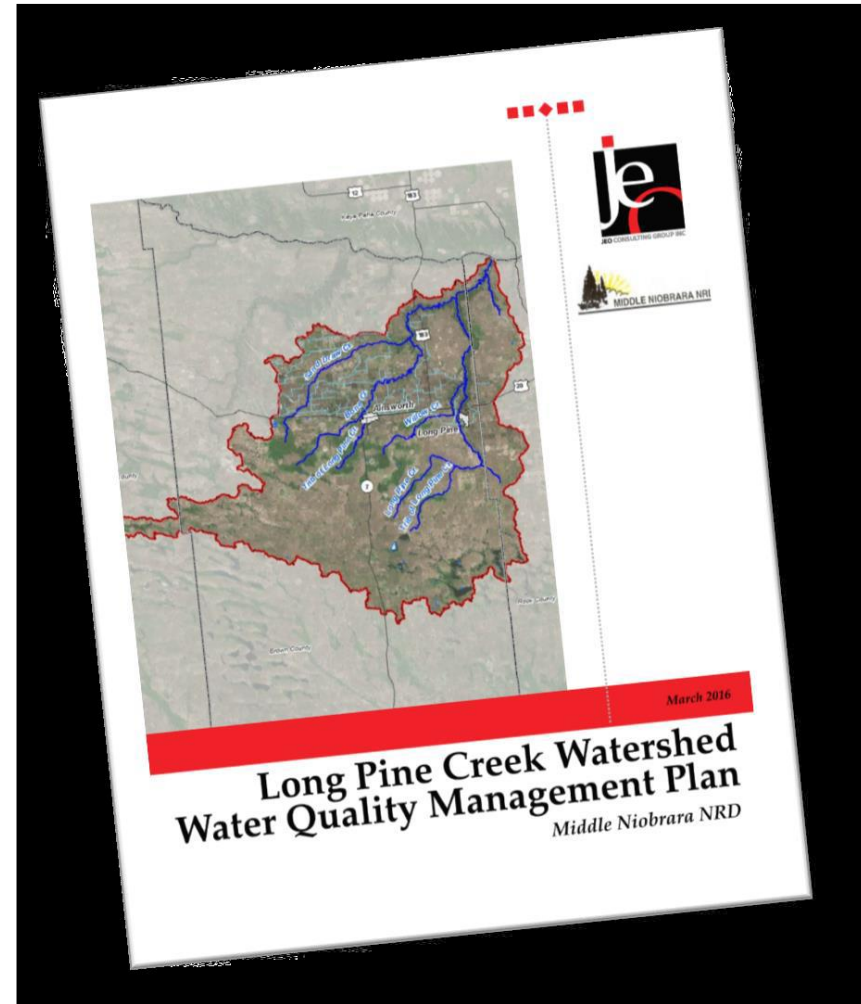


Project Background and Updates

- LPCW Issues:
 - Erosion, Streambed Degradation, Run-Off/Water Quality, High Sediment Loads, & Inadequate Aquatic Habitat.
 - Highway 7 Box Culvert
 - 303(d) Impaired Waters list for *E. coli*.
 - Sand Draw Creek and Long Pine Creek
- Watershed planning process started in 2012
- Comprehensive Assessment:
 - Addressing Issues in the LPCW
 - Increasing opportunity for outside funding sources
 - Designed off work completed in the Rural Clean Water Project (1980's)
 - Local Stakeholder Effort

Project Background and Updates

- The MNNRD applied for funding in Fall of 2014.
- A Watershed plan was officially approved in March 2016.
- Watershed plan recommendations:
 - Stream Restorations
 - Best Management Practices (BMP's)
 - Land Treatment
 - Education and Outreach
 - Phase I and Phase II Implementation



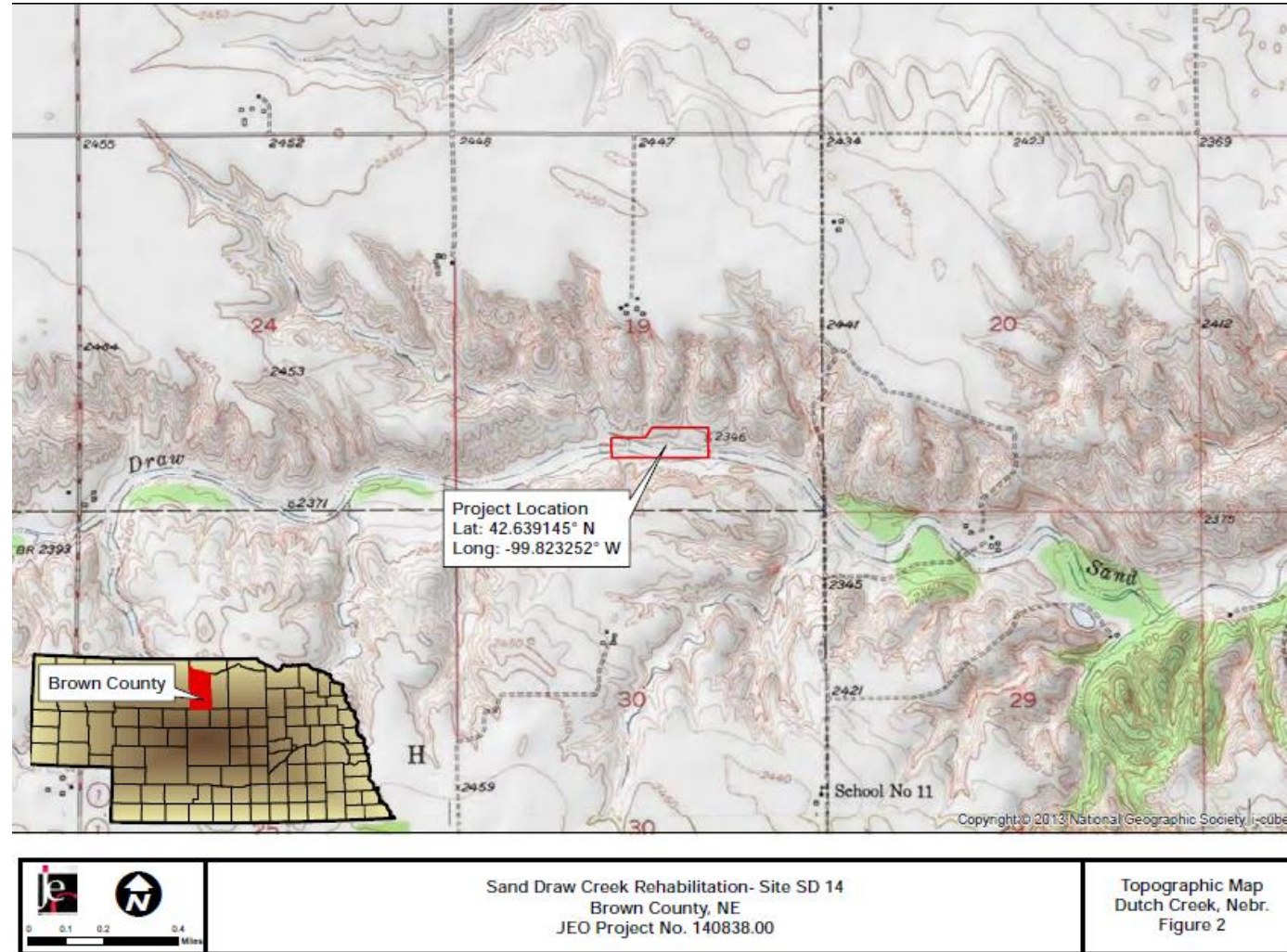
Phase I Implementation

Sand Draw Creek Rehabilitation SD-14:

- Project -Three Engineered Rock Riffles (ERR) and Bank Stabilization
- Project Location
- JEO Consulting Group
- Clean Water Section 404 Permit
- Goals
- Easement
- Engineered Rock Riffle Access and Construction Designs
- Photos of Sand Draw Creek

Sand Draw Creek Rehabilitation SD-14 Project:

(North of Ainsworth, NE on Sand Draw Creek)

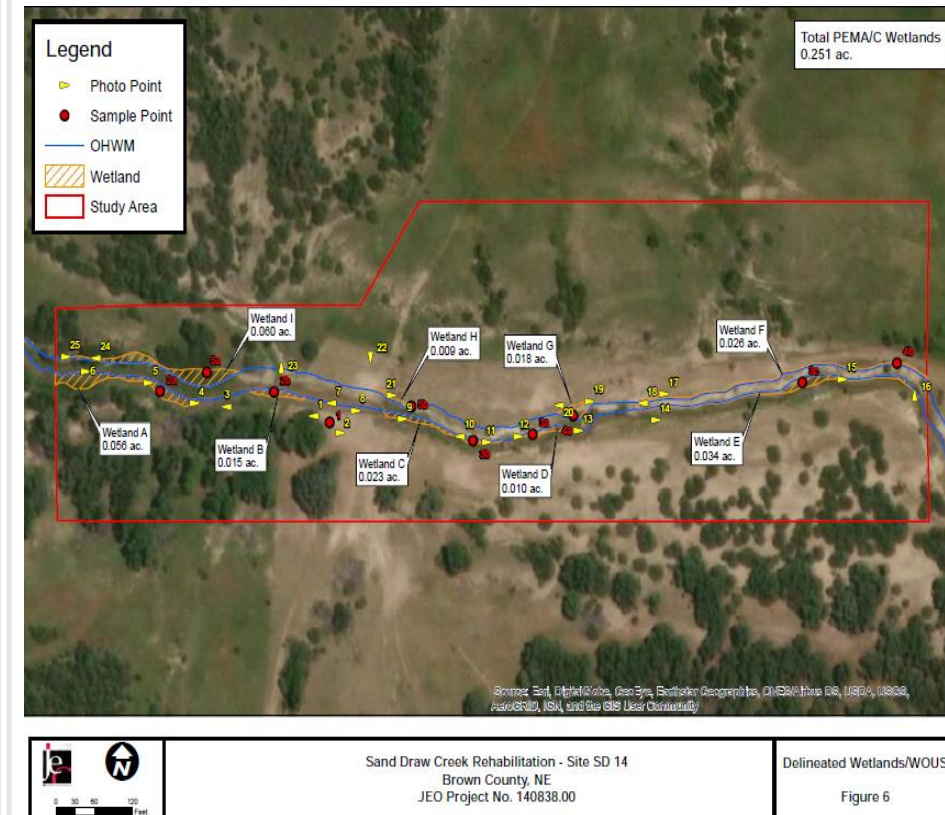


Phase I Implementation

- JEO Consulting Firm
 - Designs
 - Wetland Delineation:
 - Determining the Wetland Boundary
 - Permitting Service:
 - Nationwide 27 Permit:
 - Aquatic Habitat Restoration, Enhancement and Establishment.*
 - Ecological Reference Site
 - Pre-Construction Permit



JEO CONSULTING GROUP



Phase I Implementation



- Sand Draw Creek Rehabilitation SD-14
 - SD-14 Clean Water Act Section 404- Permit:
 - Required for the discharge of fill or dredged material In waters of the United States.
 - The 404-Permit was sent in November 2018.
 - The 404-Permit was approved in February 2019.

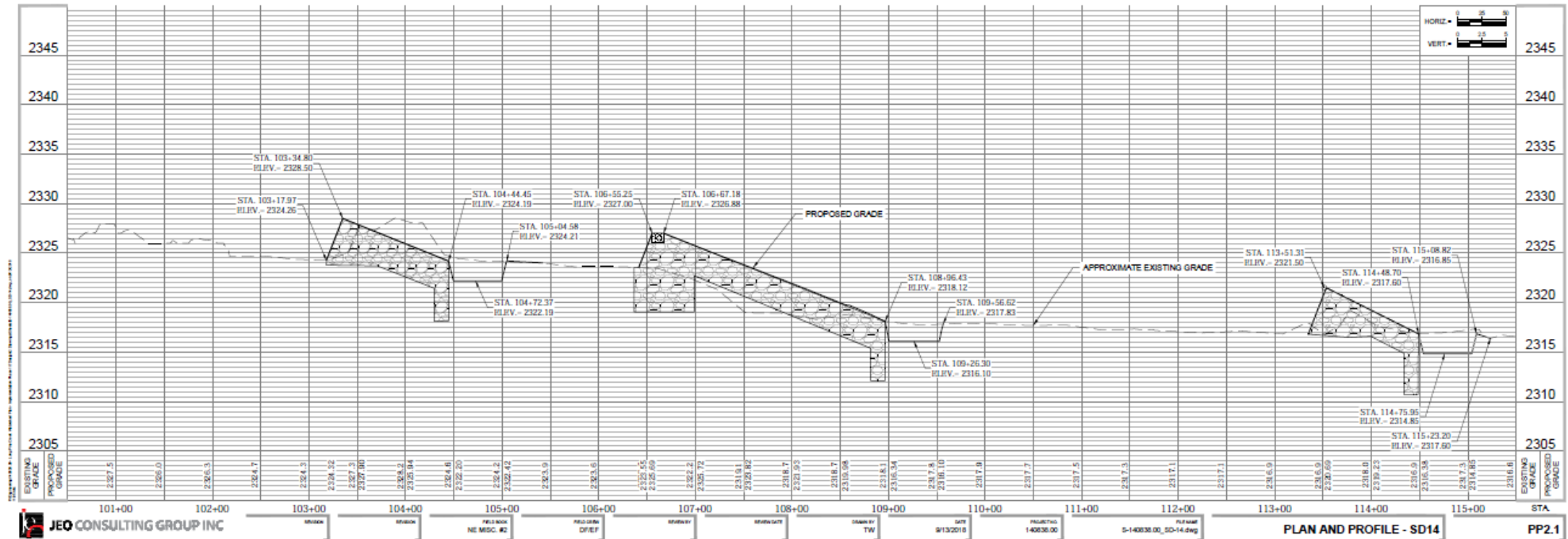
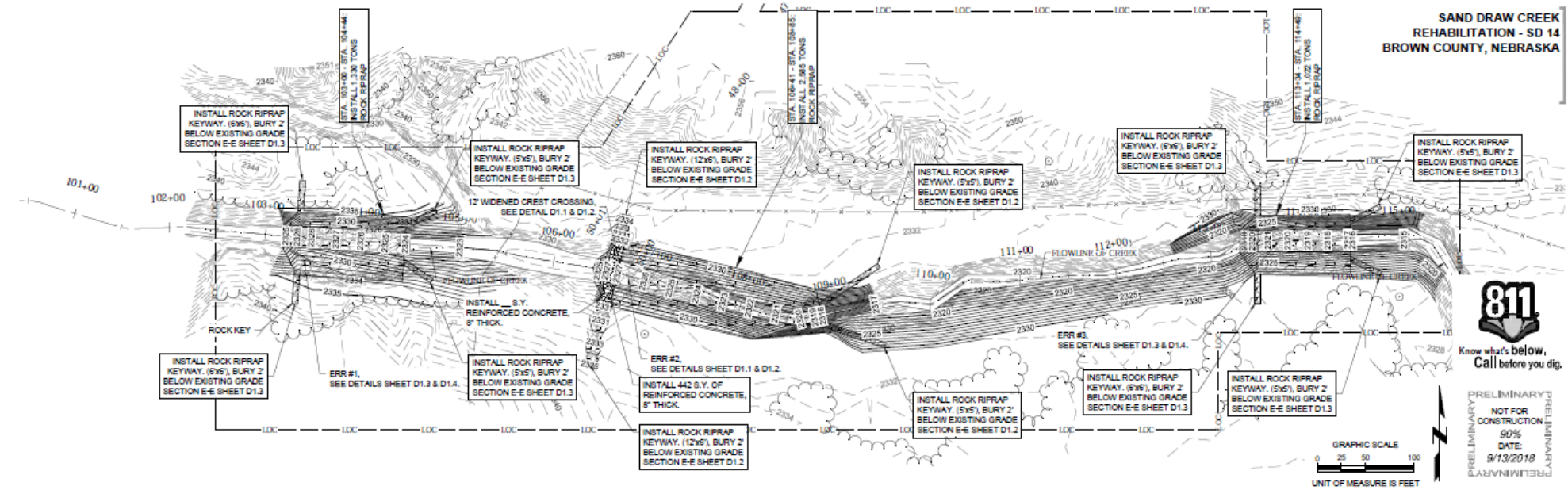
Phase I Implementation

- Sand Draw Creek Rehabilitation SD-14 Goals
 - Project SD-14's Implementation will mitigate the effects of the fundamental changes to Sand Draw Creek by Implementing measures such as these:
 - *Improving Water Quality*
 - *Restoring Streambed Elevation*
 - *Controlling Stream Bed and Bank Erosion*
 - *Improving Ecological Diversity (Both In-Stream and on Land)*
 - *Preventing Further Damage To Infrastructure*
 - *Preventing Further Loss of Agricultural Land*
 - *Reducing Downstream Sedimentation*

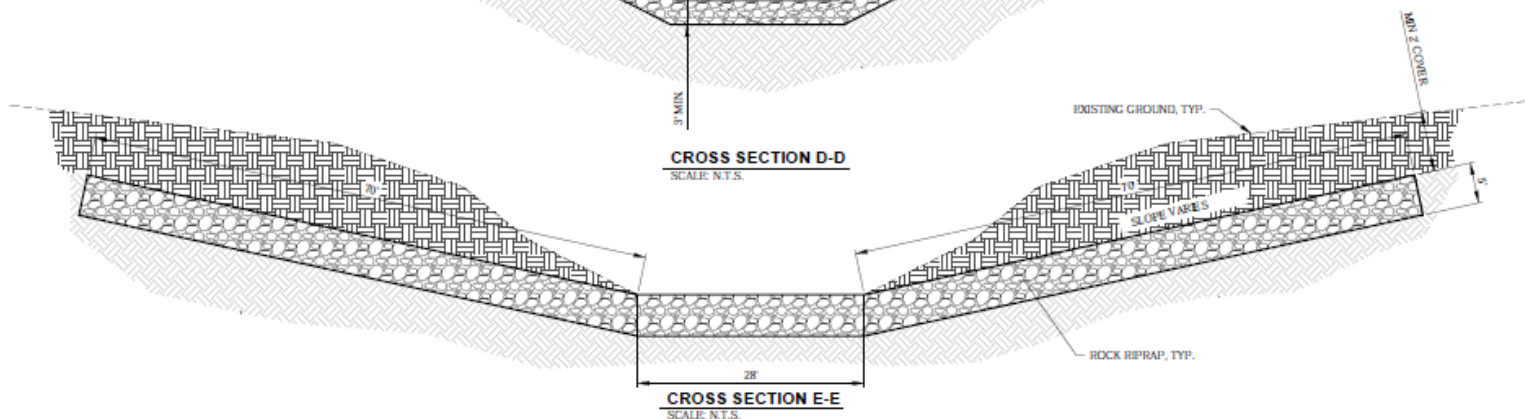
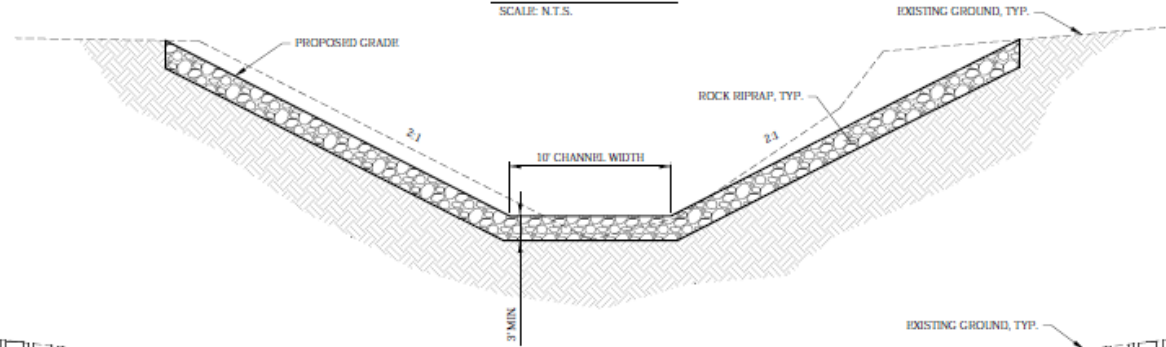
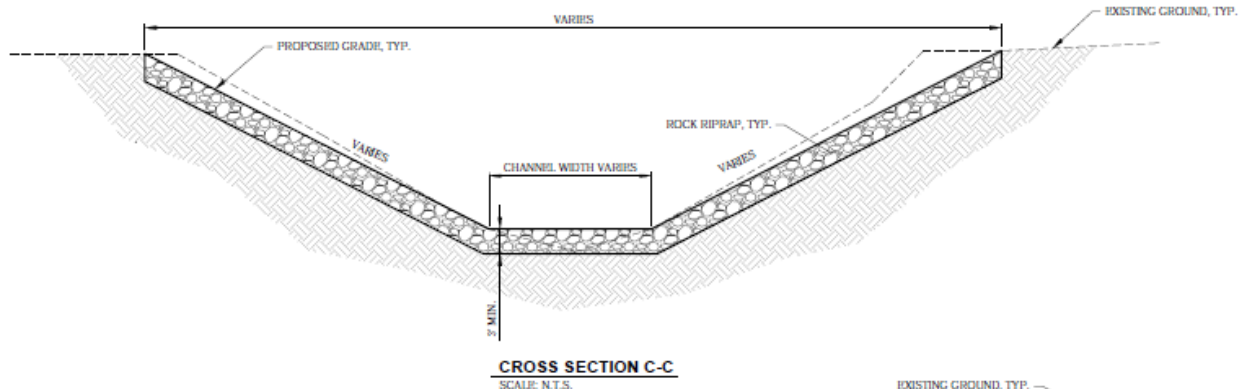
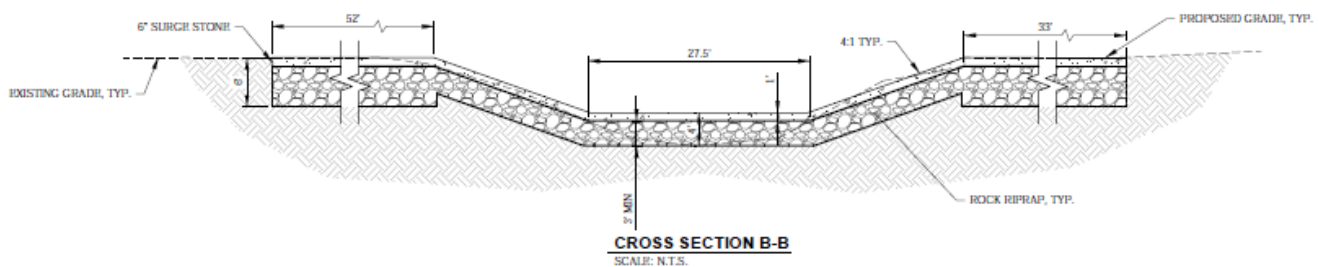
Phase I Implementation

- SD-14 Project Agreement:
 - An Agreement between the MNNRD and the Landowner.
- SD-14 Easement:
- Ingress, Egress and Regress
- Construction:
 - Rock Hauling
 - Implementation of Structures
- Oversee:
 - Annual Inspections, Maintenance and possible Big Rain Events/Storms.

Project Profile View



Cross Section of ERR

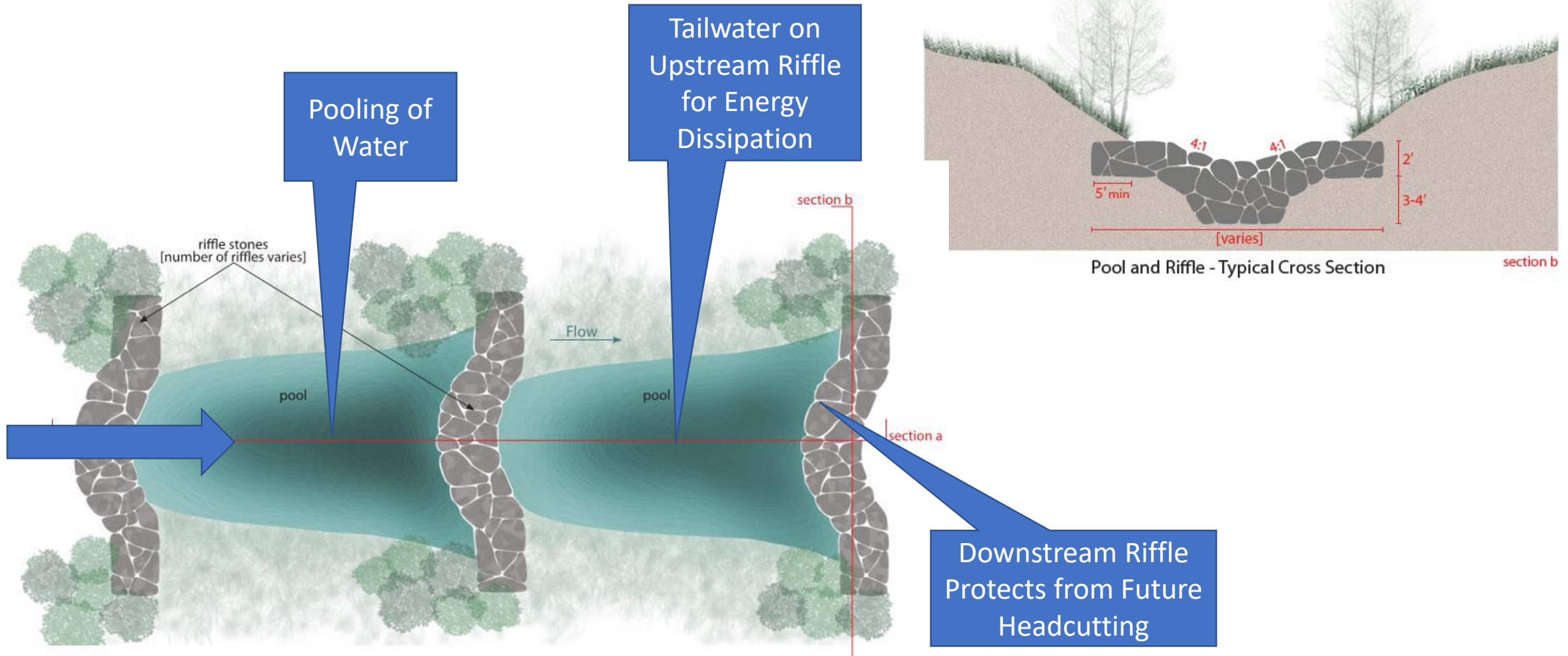


SAND DRAW CREEK
REHABILITATION - SD 14
BROWN COUNTY, NEBRASKA

STANDARD DETAILS

PRELIMINARY	PRELIMINARY
NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION
90%	90%
DATE: 9/13/2018	DATE: 9/13/2018
PROJECT NO. 140036.00	PROJECT NO. 140036.00
DATE 9/13/2018	DATE 9/13/2018
DRAWN BY TW	DRAWN BY TW
FILE NAME: S:\140036\SD-14.dwg	FILE NAME: S:\140036\SD-14.dwg
FIELD BOOK NO. 10000.00	FIELD BOOK NO. 10000.00
FIELD DRAWN DATE 09/13/2018	FIELD DRAWN DATE 09/13/2018
BLANKY FILE NO. 140036.00	BLANKY FILE NO. 140036.00
PLAN IN HAND DATE 09/13/2018	PLAN IN HAND DATE 09/13/2018
TO PREPARE DATE 09/13/2018	TO PREPARE DATE 09/13/2018
BY DATE 09/13/2018	BY DATE 09/13/2018
DATE 09/13/2018	DATE 09/13/2018
DATE 09/13/2018	DATE 09/13/2018

Phase I Implementation



Phase I Implementation

Sand Draw Rehabilitation Site SD 14

View looking
south over the
location of the
proposed main
(ERR #2)
Engineered Rock
Riffle/Weir.



Phase I Implementation

- Sand Draw Rehabilitation Site SD 14 – Reference Site
 - Ties back in with the Nationwide 27 Permit.



Phase II Implementation

- **Sand Draw Creek Rehabilitation SD-14:**

- Advertisement for Bid:

- JEO Consulting Group – Water Resources Project Manager: John Petersen
 - Bidding process: May 14th – June 3rd at 1pm.
 - Pre-bid meeting: 05/24/19 at SD-14 Site.
 - Bid-Opening: 06/03/2019 at the MNNRD Office.
 - We had 5 Bids for Construction.

- Hiring of a Contractor for Construction:

- The MNNRD & Board of Directors selected *Jim Buer Hauling and Excavating* of Valentine, NE to implement SD-14 Rehabilitation Project.

- **Construction of Engineered Rock Riffles on Sand Draw Creek.**

- Pre-Construction Meeting: July 18th, 2019
 - Initial ground work/Construction of Engineered Rock Riffle/s and Bank Stabilization will begin soon.
 - Jim Buer will finish by the end of September 2019.



Phase II Implementation

- Stream Enhancement

- Bank Stabilization:
 - Stabilization of slopes allows vegetation to re-establish and grow.
- Vegetation plantings:
 - Establishing Riparian Corridor
 - Establishing In-Stream and Bank Side Habitat.



LPCW Management

- BMP Implementation:

- Reduce Run-Off
- Improve Water Quality
- Reduce Sedimentation Loads
- Improve Aquatic Habitat and Bank Vegetation
- Improve Efficiency and Profitability of Operation

- Funding:

- EQIP- USDA-NRCS
- NRD Programs (NSWCP)
- Nebraska Environmental Trust Grant/s
- NDEQ 319 Non-Point Source Grant/s

Best Management Practices

- Stream Bank Stabilization
- Cover Crops
- Fencing and Alternate Water Sources
- Grassed Waterways
- Irrigation Water Management
- No till
- Water Sediment Control Basin
- Rain Gardens/Swale/Urban Other
- Septic System Upgrade
- Well Decommissioning
- Composting/Chips/Manure
- Mulching
- Woody Biomass Utilization
- Cool Water Streams Initiative
- Other BMP's

LPCW Management

- Small Scale Stream Improvements:
 - Grade Stabilization Structures:
 - 3 Grade Stabilization Structures will implemented this summer or early fall on a property north of Ainsworth 6 miles on part of Sand Draw Creek.
 - Several locations throughout part of the property have been planned out for a Structure by the NRCS.

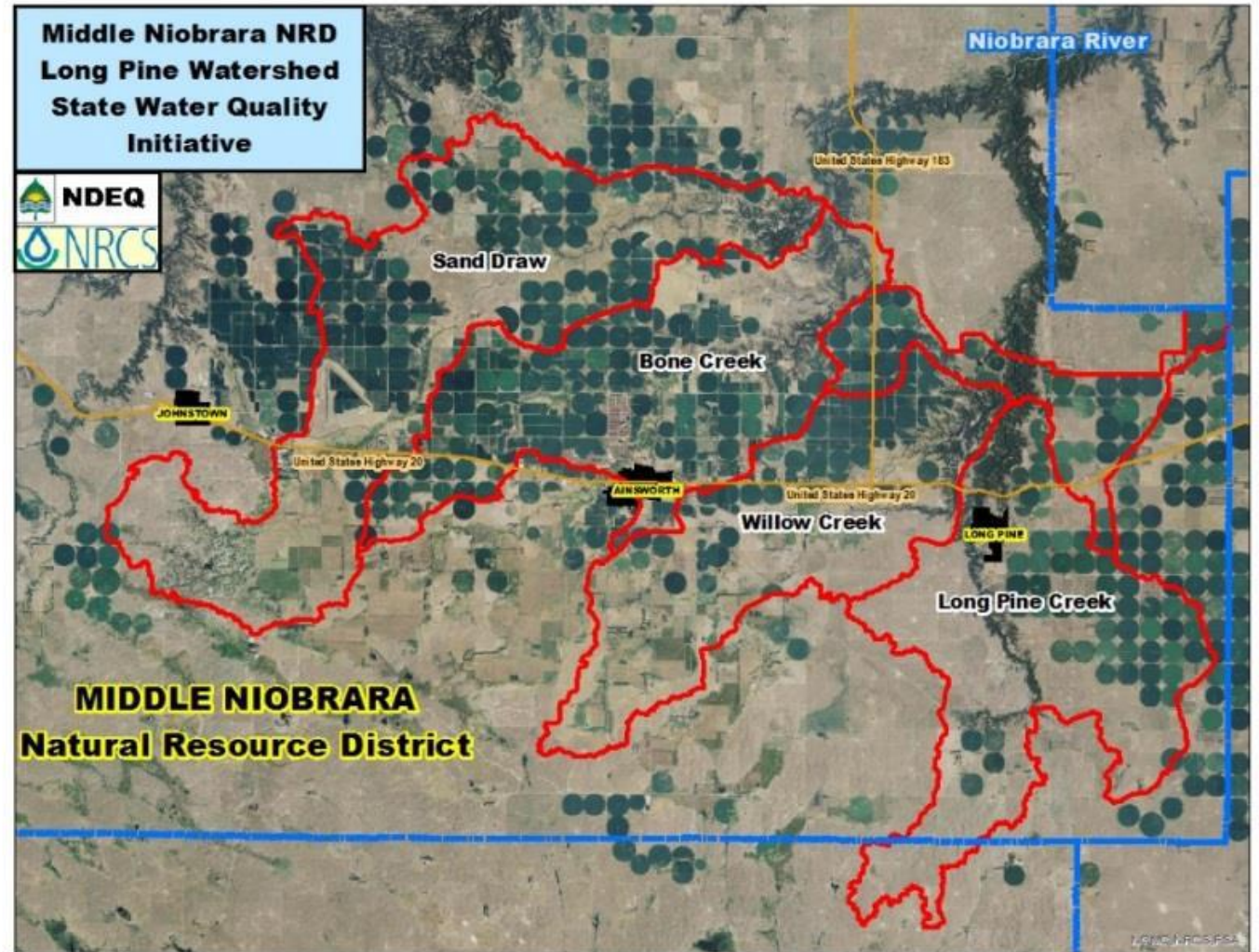
Proposed Grade Stabilization Structures



LPCW Management

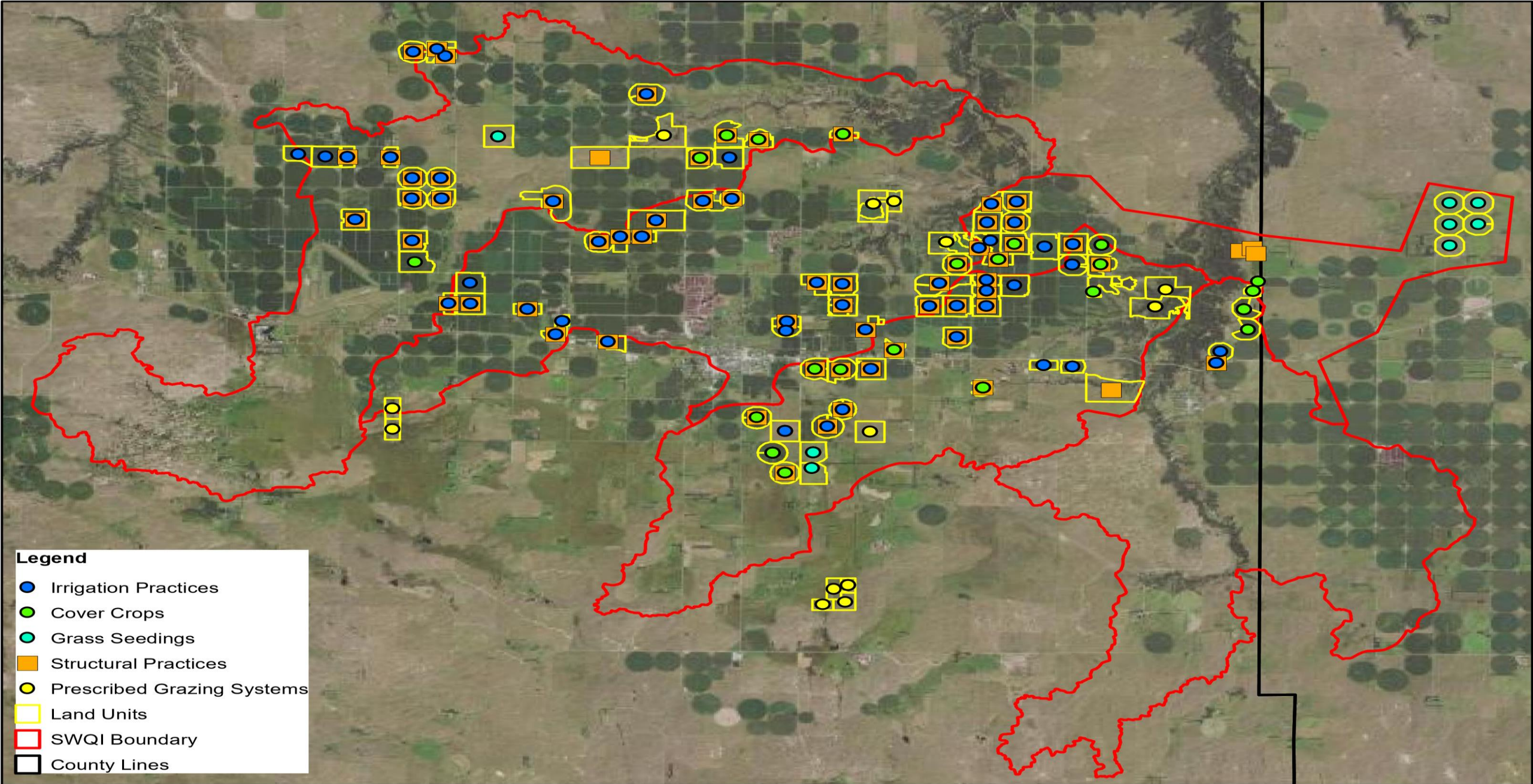
- **State Water Quality Initiative (SWQI):**

- NRCS works with Farmers and Ranchers in watersheds to improve water quality where there's a critical concern.
- Financial assistance to implement conservation practices to:
 - Reduce nitrogen, phosphorus and sediment contributions from Ag fields.
- Eligible producers receive assistance under the Environmental Quality Incentives Program (EQIP) to install practices such as:
 - Nutrient Management, Cover Crops, Conservation Cropping Systems, Filter Strips, Terraces and Water Quality Monitoring.
- Funding for 5 years: 2015-2019



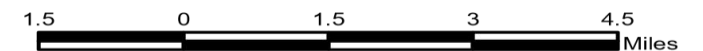
LPCW Management

- **State water quality initiative (SWQI) Funds and EQIP 2015-2018:**
- Best Management Practices (BMP's):
 - 42 Total Contracts/Landowners
- Total Number of Practices: 169
 - Irrigation Water Management: 23 plans of which there is 8,329.9 acres.
 - Fencing (Controlled Access Fencing): 5 plans of which there is, 15,509' or 2.94 miles.
 - Watering Facility (Alternate Water Source): 4 plans of which there is 16 total.
 - Cover Crops: 10 plans of which there is, 2,693.1 acres.
- Total Acres Benefited: 16,057ac
- *****2019 SWQI** had 19 applications with tentatively 10 getting funded.***



Long Pine State Water Quality Initiative
EQIP Practices as of 2/2019

Prepared with assistance from USDA-Natural Resources Conservation Service



LPCW Management

Stream Assessments:

- Long Pine Creek Watershed
- Level Loggers:
 - Water Level
 - Temperature
 - Pressure
- Channel Widths and Velocities:
 - Stream flow or Velocity shows how the water is flowing.
- All Units Combined:
 - Gives ideas on how to plan, design and implement structures that are capable of holding the amount of water flow.



Levellogger

Bone Creek



Lower Sand Draw
Creek



Upper Sand Draw
Creek

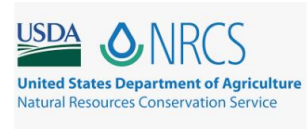


Middle Sand Draw Creek



Watershed and Flood Prevention Operations (WFPO) NRCS Watershed Work Plan –LPCW Improvement Project

- USDA-NRCS/Background
- Funding Approval & Request for Qualification (RFQ)
- WFPO Project Agreement
- WFPO Potential Future Construction and Implementation Funding



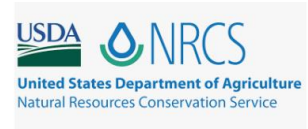
Watershed and Flood Prevention Operations (WFPO) NRCS Watershed Work Plan –LPCW Improvement Project

- Background:
 - USDA-NRCS Funding:
 - Helps Federal, State, Local and Tribal Government (Project Sponsors) Protect and Restore Watersheds up to 250,000-acre threshold.
 - Investing \$150,000,000.00 in the 48 states.
 - Purpose of the WFPO Funds:
 - Erosion and Sediment Control, Watershed Protection, Flood Prevention, Water Quality Improvements, Rural, Municipal and Industrial Water Supply, Water Management, Fish and Wildlife Habitat Enhancement and Hydropower Sources.



Watershed and Flood Prevention Operations (WFPO) NRCS Watershed Work Plan –LPCW Improvement Project

- Background Continued:
 - Combined two plans into one plan (Long Pine Creek Watershed Improvement Project):
 - Long Pine Creek Watershed Plan – 224, 092 acres
 - Bone Creek Watershed Plan – 108, 222 acres
 - Eligibility:
 - The project area is more than the 250,000 acre threshold but was given a variance to consolidate the 2 plans into one.
 - The watershed area is vastly agricultural in nature.



Watershed and Flood Prevention Operations (WFPO) NRCS Watershed Work Plan –LPCW Improvement Project

- Funding Approval:
 - Funding was approved in February 2019.
- NRCS Watershed Work Plan (EA):
 - Two Options for Hiring an Consulting Group:
 - Local Nebraska Consulting Group:
 - Advertise an Request For Qualifications (RFQ) to local Nebraska Consulting Groups and local Newspapers.
 - NRCS – IDIQ:
 - The IDIQ system through the NRCS advertises for bid to various “pre-qualified” consulting groups, hire a consulting group and then administer the Watershed Work Plan.



Watershed and Flood Prevention Operations (WFPO) NRCS Watershed Work Plan –LPCW Improvement Project

- Request for Qualifications (RFQ):
 - The MNNRD advertised an RFQ to several consulting groups in Nebraska to develop a NRCS Watershed Work Plan – Environmental Assessment (EA) for the LPCW Improvement Project.
 - RFQ Proposal advertisement: May 22nd, 2019 – June 14th, 2019.
 - The MNNRD received two RFQ Proposals (FYRA and JEO).
 - RFQ Presentations from both FYRA and JEO on July 1st, 2019.
 - The Board of Directors and MNNRD selected **JEO** on July 8th, 2019.
- WFPO Project Agreement:
 - The Project Agreement was signed in late June 2019 by the MNNRD and NRCS State Conservationist.
 - Beginning timeframe for the planning process starts now and will be finalized in April of 2021.
- WFPO Implementation and Construction:
 - Submittal and approval of the NRCS Watershed Work Plan will allow the MNNRD to apply for WFPO funds to construct and implement high priority projects.



LPCW Management Stakeholders

- Previous Stakeholder Meetings:

- October 2014
- June 2016
- March 2018
- Open House – December 10th 2018
- LPCW Stakeholder Meeting-July 18th, 2019

- Future Stakeholder Meetings:

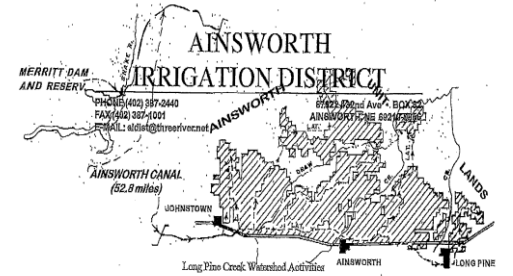
- Future Meetings will be planned with the progress and updates of the LPCW Management and/or Projects and BMP's.



Partners Involved



- NET
- NDEQ
- JEO
- NRCS
- Ainsworth Irrigation District
- Sandhills Task Force
- US Fish and Wildlife Service
- Nebraska Forest Service
- NE Game and Parks Commission
- Local Landowners



Grants

- NDEQ 319 LPCW Implementation Phase I (56-1581):
 - \$97,500
- NDEQ 319 LPCW Implementation Phase II (18-175):
 - \$221,021
- NET Long Pine Creek Watershed Phase I (15-216-2-2):
 - \$250,000
- NET Long Pine Creek Watershed Phase II (18-175):
 - \$451,530



Contact Information

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**Long Pine Creek Watershed
Improvement Project**



Thank you

