State Technical Committee Meeting – 09/10/2020

ALL POWERPOINT PRESENTATIONS
ARE ON THE WEBSITE.
& the video can be found on our YouTube page.

Attendees: Tami Nordman, Craig Derickson, Brad Soncksen, Conor Ward, Mike Murphy, Kyle Hauschild, Kenny Dinan, Bryan Euse, Erica Gnuse, Doug Klein, Jordan Dux, James Huntwork, Tim Kalkowski, John Mayberger, Andrew Piersen, Eric Zach, Steve Roth, Ginger Wilson, Lower Loup NRD, Dusty Way, Ryan Lodge, Dennis Schueth, George Cunningham, Neil Dominy, Jana Ingwerson-Laws, Curt Becker, Jennifer Prenosil, Mike Fritz, Adam Smith, Pat O'Brien, Doug Christensen, Nick Streff, Mark Brohman, Boone McAfee, Andrea Hartman, Jesse B., Lavaine Moore, Walt Schacht, Rachael Herpel, Sara Brock, Dustin Wilcox, Lyndon Vogt, Kelsi Wehrman, Rich Walters, Al Juhnke, Shelly Kelly, Steve Roth, Andy Bishop, Jake Bliven, Britt Weiser, Randy Epperson, Kris Bousquet, Buffalo Bruce, Ashley Kohls, Marcia Trompke, John Hansen, Carla, Dean Edson, Matt Smith, Renee Hancock, John Erixson, Neil Moseman, Dusty Way.

WELCOME AND THANK YOU FOR BEING HERE! – Craig Derickson, State Conservationist, NRCS

- Welcome
- Hold meetings quarterly
- Keep all information about State Technical Committee on our website.
- Will continue to operate in a safe & healthy manner during COVID & thank you all for your continued cooperation while we do our meetings via TEAMS.
- Reviewed the Agenda
- Gave praise to our State Office & Field Office employees & also our partners for all their hard work during these trying times.
- New software & changes to the Farm Bill for our employees to learn.
- Working to begin new program activities starting Oct. 1.
- Introductions

CONSERVATION PROGRAMS UPDATES - *Brad Soncksen, NRCS*

- **CSP**
  - FY2020 Allocations
    - CSP Classic = $12.2
    - CSP Renewal = $7.8 Million
    - CSP-Grassland Conservation Initiative = $3.4 Million
  - Results of 2020 GCI signups
    - New contracts = 199
    - Contract obligations = $10,425.00
  - Results of 2020-1 renewal signup
    - Applications = 258
    - Contracts = 96
    - Contract acres = 180,000
  - CSP Classic signup
    - Applications = 910
    - Contracts = 125
    - Contract Acres = 305,000 (estimated)
  - 2020 CSP Annual Payments
    - All FY 2020 approved contracts - **November 6, 2020**
      - CSP-Renewal, CSP-Classic, and CSP-GCI
  - Active contracts approved in FY 2015 – FY2019 where participant elects to receive payment in CY 2020 - **November 6, 2020.**
  - Active contracts approved in FY 2015 – FY2019 where participant elects to receive payment in CY 2021 - **February 5, 2021.**

- **EQIP**
  - **EQIP Allocation FY2020**
    - **2020 Mandatory Distribution**
      - Source Water Protection – 10%
      - Wildlife Initiative – 10%
      - Historically Underserved – 10%
      - Livestock – 50%
    - **FY2020 STATEWIDE FUND POOLS**
      - Seasonal High Tunnel
      - Organic
      - Energy
      - Conservation Activity Plans
      - Animal Feeding Operations
      - Tribal
      - HEL Treatment

- **FY2020 PARTNERSHIP FUND POOLS**
    - National Water Quality Initiative (NWQI)
        - 4 Projects = $1.3 million
    - Water Smart (Bureau of Reclamation)
        - 1 Project – URNRD = $150,000.00
    - Forest Service (Joint Chiefs)
        - 1 Project – UNWNRD, MNNRD, ULNRD = $342,000.00

- **FY2020 General EQIP Allocation = $23 Million**
    - Local Work Groups = $14 Million
    - Wildlife (10%) = $2.3 Million
    - Historically Underserved (10%) = $2.3 Million
    - Source Water Protection (10%) = $2.3 Million
    - Animal Feeding Operations = $1.0 Million
    - HEL Treatment = $500,000
    - Conservation Activity Plans = $200,000
    - Working Lands for Wildlife = $100,000
    - High Tunnels = $100,000
    - Organic = $100,000
    - Tribal = $100,000
    - Energy = $25,000

- EQIP HIGH PRIORITY PRACTICES
    - State Conservationists, in consultation with the State Technical Committee, have the **option to select up to 10 high priority practices, which may receive increased payment rates**. A high priority practice must meet one of the following criteria:
        - Addresses specific causes of impairment relating to **excessive nutrients in ground or surface water;**
        - Addresses the conservation of water, to advance **drought mitigation and declining aquifers;**
        - Meets other environmental priorities and other priority resource concerns identified in habitat or other area restoration plans; or
        - Is geographically targeted to address a natural resource concern in a specific watershed.

*** Selection of practices to receive higher payment should incentivize conservation practices that have high potential for conservation but are underutilized.**

- Maximum of 10 practices allowed
    - 328 -Conservation Crop Rotation
    - 338 –Prescribed Burning
    - 386 –Field Border
    - 391 –Riparian Forest Buffer
    - 393 –Filter Strip
    - 420 –Wildlife Habitat Planting
    - 472 –Access Control
    - 590 –Nutrient Management
    - 595 –Pest Management
    - 657 –Wetland Restoration

- **ANIMAL MORTALITY MANAGEMENT INITIATIVE**
  - Provides assistance to livestock producers for animal mortality disposal resulting from impacts of the COVID-19 pandemic.
  - Application cutoff dates:
    - May 11, 2020
    - June 1, 2020
    - June 22, 2020
    - June 22, 2020
      - Applications = 21
      - Contracts = 3 (Platte County =2, Cedar County= 1)
        - Total Obligation = $12,499.00

- **SOURCE WATER PROTECTION**
  - **Source Water Protection Practice List: *Practices with potential up to 90% c/s rate.**
    - 327 - Conservation Cover
    - 328 - Conservation Crop Rotation
    - 332 - Contour Buffer Strips
    - 340 - Cover Crop
    - 342 - Critical Area Planting
    - 355 - Well Water Testing
    - 386 - Field Border
    - 390 - Riparian Herbaceous Cover
    - 391- Riparian Forest Buffer
    - 393 - Filter Strip
    - 412 - Grassed Waterway
    - 449 - Irrigation Water Management
    - 590 - Nutrient Management
    - 635 - Vegetated Treatment Area
    - 656 - Constructed Wetland
    - 351 - Water Well Decommissioning
    - 430 - Irrigation Pipeline
    - 441 - Irrigation System, Micro irrigation
    - 442 - Sprinkler System
    - 512 - Forage and Biomass Planting
    - 550 - Range Planting
    - 595 - Integrated Pest Management
    - 657 - Wetland Restoration
    - 659 - Wetland Enhancement

- **NRCS Partnership Initiatives & Grants**
  - **Core Principles:**
    - **Innovation**
    - **Partner Contributions**
    - **Impact**
    - **Partnerships & Management**

- **<u>RCPP</u>**
  - **Existing Regional Conservation Partnership Program (RCPP) projects in Nebraska**
    - Ogallala Aquifer & Platte River Recovery – CPNRD & TPNRD
      - $ 1.7 million
      - 1-year extension approved
      - Expired 05/13/2020
      - PPA (Programmatic Partnership Agreement)
        - Agreement negotiated and signed prior to May 2021
        - 5-year agreement to 2026 for $2.7 million

    - Regional Grassland Bird & Grazing Enhancement Initiative – NGPC
      - Missouri, Nebraska, Kansas, Iowa
      - $ 885,000/00 (Nebraska allocation)
      - Expires 09/30/2020

    - Cropland Cover for Soil Health and Wildlife – NGPC
      - Initial Allocation = $700,000.00
      - Expires: 12/31/2020
      - Approved for FY20 Renewal
      - Agreement for 5 years into 2025 recently signed

    - Republican Basin Conservation Partnership – LRNRD, MRNRD, URNRD
      - $2.1 million allocated
      - Additional FA approved = $500,000.00
      - Received one year no cost extension Expires: 08/08/2021

    - Divots in the Pivots – UBBNRD/RWBJV
      - Combination of ACEP-ALE, ACEP-WRE and EQIP
      - $1.8 million
      - Expires 09/30/2022

    - Wahoo Creek Water Quality Sites 26 & 27 – LPNNRD
      - $1.5 million
      - Active Status

    - Papillion Creek Site WP-1 Dam – PMRNRD
      - **$4.4 million**
      - Active Status

- **FY2020 Awards (FY19 APF)**
  - 4 proposals received involving Nebraska
  - Awarded 1 RCPP project announced mid-April 2020
  - Programmatic Partnership Agreement (PPA) executed June/July 2020 with TNC.

- Resilient Futures for Nebraska Soils – TNC, UBBNRD & CPNRD
  - TNC – Lead Partner
  - $4.4 million
    - 3.1 million FA
    - 5yr project

- **FY 2019 Classic Award**
  - *The Nature Conservancy (TNC)*
    - Resilient Futures for Nebraska Soils

      Funding Amount: $ 4,419,304

      Partner Contributions: $ 4,397,865

      Funding Pool: State/Multi State

      Critical Conservation Area (if applicable): N/A

      Summary: The Nature Conservancy, supported by project partners, including two Natural Resources Districts, will help farmers in central Nebraska adopt soil health practices on an estimated 100,000 acres over five years, storing 150,000 metric tons CO2e and preventing 375,000 tons of erosion. Alongside this traditional approach to soil health practice adoption, farmers will be connected to carbon markets and the partnership plans to rigorously report on the economic and social outcomes of the project.

- **FY 2020 Renewal Award**
  - Cropland Cover for Soil Health and Wildlife
    - Expected to be $700,000

- **Proposal Deadlines/Award Announcements**
  - **FY 2020 RCPP-AFA – proposals were due May 29th in portal**
    - **Peer reviews are underway, and awards announced in September 2020**
  - **FY 2021 RCPP-AFA – funding announcement release in December 2020.**
    - **Submitted NE Proposal RCPP-AFA – (15 Projects will be funded)**
  - **FY 2020/2021 RCPP Classic funding announcement released August 6, 2020**
    - Grants.gov: **USDA-NRCS-NHQ-RCPPC-21-NOFO0001033**
    - Proposals are **due November 4, 2020 in RCPP Portal** – partner webinar on how to submit a proposal is September 10, 2020 – 2-3pm CST.
    - Awards announced March 2021

❖ CONSERVATION INNOVATION GRANTS (CIG)

- National CIG
  - Funds the development of promising approaches and technologies—which may or may not be successful!
  - Funding rarely provided directly to producers
  - Projects often include small-scale pilots or demonstrations
  - National and State competitions

- CIG On-Farm Trials
  - Funds the implementation and evaluation of innovative approaches, systems and practices that we know provide a conservation benefit.
  - Funding must be provided directly to producers to offset implementation risk.
  - Partners must complete both conservation and economic evaluations.
  - Soil Health Demo Trial awardees must agree to use consistent assessment methods.
  - National competition only.
  - **2019 On-Farm Trials funding announcement released May 15, 2019**
    - 2019 On-Farm Trials Award recipients announced November 26, 2019
    - 4 Nebraska projects approved

- **2020 On-Farm Trials were due 5/29/2020**
    - Peer reviews are underway, and awards will be announced September 2020
- **2020 National CIG funding announcement released 4/30/20 – proposals were due 6/29/20**
    - **Peer reviews are underway, and awards will be announced September 2020**
    - **CIG Webinar is September 24th at 12:30 CST**
        - **Webinar will highlight new innovations in Water Quality**
        - **Webinar call information is located on the CIG National Website**
        - **nrcs.usda.gov/programs/financial/cig**

❖ VOLUNTARY PUBLIC ACCESS and HABITAT INCENTIVE PROGRAM (VPA-HIP)

- Competitive Grants Program through grants.gov
- The primary objective of the VPA-HIP is to encourage owners and operators of privately-held farm, ranch, and forest land to voluntarily make that land available for access by the public for wildlife-dependent recreation, including hunting or fishing, under programs implemented by State or tribal governments.
- NE Game & Parks received this three year grant for FY21 because of the well-established Open Fields & Water Program (OFW).
    - $3,000,000.00 Federal Funds
    - $500,000.00 Non-Federal Funds

❖ EQIP WaterSMART Landscape Conservation Initiative

- NRCS's EQIP WaterSMART Landscape Initiative is a collaborative effort to target EQIP funds that are complimentary to the US Dept of Interior's Bureau of Reclamation WaterSMART projects. NRCS and the Bureau of Reclamation have been coordinating alignment of EQIP and WaterSMART investments since a pilot by California NRCS in 2011. To date, NRCS from 10 states are now collaborating with Bureau of Reclamation. Nebraska joined this collaboration in FY 2020.
- Supplements Bureau of Reclamation WaterSMART Program –Water Conservation and Efficiency Grants
- Current WaterSMART Projects funded by Bureau of Reclamation in Nebraska:
        - Upper Republican NRD - 2018
    - Remote Water Metering and Conservation Project
        - Middle Republican NRD – 2019
        - Remote Meter Monitoring and Irrigation Water Conservation Project
    - Frenchman Cambridge Irrigation District – 2019
        - Meeker Driftwood Canal SCADA and TCC Modernization Project

- **FY20 Proposals:**
    - One Project Approved:
        - $136,000.00
    - FY21 Proposals:
        - Two Project Proposals Submitted: $1.3 Million
        - Submissions were due: July 31, 2020

- **National Water Quality Initiative**
  - Wahoo Creek – Saunders - Lower Platte North NRD
  - Bazile Creek – Antelope, Pierce, Knox - LENRD, LCNRD, UENRD
  - Big Sandy Creek – Little Blue NRD
  - Turkey Creek – Lower Big Blue NRD

  - FY2020 Applications Received
    - Big Sandy: 0 = $0
    - Wahoo Creek: 10 contracts = $350,371.00
    - Bazile: 9 contracts = $872,591.00
    - Turkey Creek: 2 contracts = $56,224.00

- **ACEP**
  - **FY2020 ACEP - Nebraska**
    - ACEP-WRE Applications = 33
      - 5,900 acres, $16 million estimated cost
    - ACEP-WRE approved = 5
      - 910 acres, $133,200.00
    - ACEP-ALE-GSS approved= 1
      - 8,900 acres, $2.9 million federal share

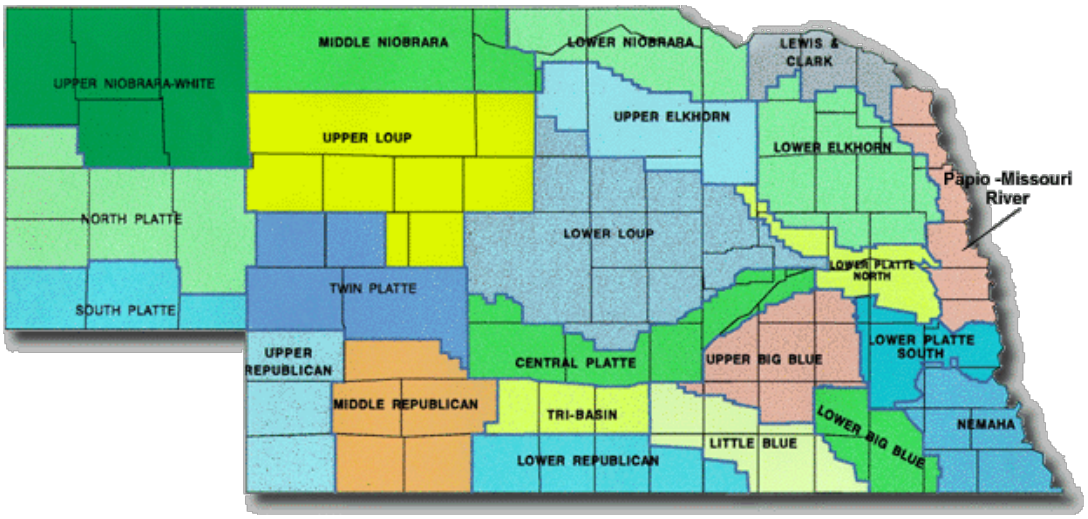
    - ACEP-WREP Applications = 8
    - ACEP-WREP Approved = 5
      - 430 acres, $1.7 million

  - FY2021 ACEP – Nebraska
    - Application cutoff date – October 1, 2020
    - Appraisals will determine Fair Market Value
      - Percentage GARCS will be used in FY2021
    - Compensation rate for 30-year easements is 75% of permanent easement value

  - **2019 SPRING FLOODING**
    - EWP – Floodplain Easement Program
      - Sign up ended October 31, 2019.
      - 34 applications on approximately 6,400 acres.
      - 20 applications eligible on 5,500 acres
      - Cost estimates exceed $20 million for purchase and restoration on eligible applications.
      - Nebraska has received an allocation of $16.6 million
      - 7 applications approved on 4,657 acres
      - Requested additional $3.2 million to fund the rest of applications.

❖ FY 2021 LOCAL WORK GROUP MEETINGS –

- Meetings completed in January/February 2020



- ***LOCAL WORK GROUP AGENDA ITEMS:***
  - Priority Resource Concerns
  - Fund Pools - Ranking Tools – Screening Tools
    - Revised ranking process for FY2020 – CART
  - Practice Payment Schedule
  - Local issues

- FY2021 Local Workgroup Recommendations
  - **Practice scenario requests**
    - Irrigation Water Management (449)
      - Add IWM scenario – Modeling
      - **ACTION: Approved – added scenario "Consultant based IWM No Equipment"**

    - Sprinkler System (442)
      - Application cutoff date – October 1, 2020
      - Appraisals will determine Fair Market Value
        - Percentage GARCS will be used in FY2021

    - Compensation rate for 30-year easements is 75% of permanent easement value

    - Planned Grazing System (528)
      - LWG asked if scenarios pay for partial year rest or full year deferment
        - **Action: The EQIP planning guidance document will be edited to provide clarification and training provided to planners.**

      - Add partial deferment scenario instead of just the full year deferment in Scenario 8
        - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Edit or add scenario for livestock deferment under Prescribed Grazing allowing early spring grazing until May 20 or 30th. Livestock then deferred rest of the year.
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Add new or edit Scenario 5, Grazing lands 30-73% rest - $15
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Add new or edit Scenario 6, Grazing lands >73% rest - $30
    - LWG comment: Payments are significantly lower than pasture rental rates in eastern NE where stocking rates are higher
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Add new or edit Scenario 8, Livestock Deferment (F1) - $60
    - LWG comment: Full year deferment needs to be comparable to actual rental rates to be competitive
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Add another Livestock Deferment scenario allowing early spring grazing until May 20 or 30. Then defer livestock for remainder of the year.
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Edit 528 rules: Allow prescribed grazing to be cost shared more than once.
    - LWG comment: Currently limiting producers to only one grazing land improvement contract.
    - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations. Under current policy this would require going to a higher level of management for additional payments.**

- Cover Crop (340)
    - Modify existing scenario to allow the ability to hay or graze cover crops when converting cropland to grassland.
        - **Action: Approved. Current scenario allows this. Training will be provided.**

    - Scenario #44 Frost terminated Cover Crop should be allowed to be used in more situations.
        - **Action: Training will be provided to clarify policy and procedures.**

- Residue Management (329)
    - Should no longer be an incentive payment or reduced to 1 year
        - **Action: No change to current policy for FY2021. Under review for FY2022**

- Underground Outlet (620)
    - Scenario names are confusing. Recommend change to reflect type and size of pipe rather than number of risers in system.
        - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

    - Need additional underground outlet scenarios (no specific suggestions).
        - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

    - Noted that most scenarios were for PVC pipe, other types such as CMP, dual wall, etc., are not well represented.
        - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenario recommendations.**

- Grassed Waterway (412), Terrace (600), WS Basins (638)
    - Waterways, terrace and basins should be paid by acre, should be increased 20-25%.
        - **Action: No change for FY2021, scenarios are set. Under review for FY2022 practice scenarios recommendations.**

- Water Well (642)
    - Add scenario to convert power supply on existing stock wells to solar. Currently policy only allows solar system on new wells.
        - **Action: No change from current policy for FY2021**

- Conservation Crop Rotation (328)
    - Require cover crop if cash crop removed by Oct. 15, fund the seeding costs.
        - **Action: no change to policy for FY2021**

- Nutrient Management (590)
    - LWG does not agree with allowing producers to exceed UNL recommendations and still be in compliance (>15%).
        - **Action: Training will be provided to clarify policy and procedure**

- Add new practice: Land Smoothing (466)
    - Practice needed to remove surface irregularities (old or broken terrace systems) which interfere with new systems.

    - Adapt existing Kansas payment scenario #2.
        - Field Shaping Scenario Description: Removing irregularities on the land surface of cropland by use of heavy equipment.
            - **Action: Approved. Added practice 466 – Land Smoothing, scenario for field shaping for use in FY2021.**

- Suggestion to allow payments for perimeter fencing and livestock water systems in cropland for grazing cover crops after harvest.
    - ***Action: No change for FY2021. This is not allowed on cropland under current policy. Requires complete conversion to grassland.***

- Add new practice for ditching
    - Practice needed for ditching (drainage)of inundated fields, new resource concerns due to excess precipitation (shelterbelts drowning out)
        - ***Action: No practice available for use in 2021. Under review for FY2022.***

- **Change practice payment caps**
    - Reduce (590) Nutrient Management – From $10,000.00 to $7,500.00
        - ***Action: No change for FY2021. Payment cap remains at $10,000.00***

    - Increase (313) Waste Storage Facility – From $80,000.00 to $150,000.00
        - ***Action: Increased cap to $100,000.00 for FY2021.***

    - Increase (340) Cover Crop – from $7,500.00 to $10,000.00
        - ***Action: No change for FY2021. Payment cap remains at $7,500.00***

    - Increase (327) Conservation Cover – currently $7,500.00
        - ***Action: No change for FY2021. Payment cap remains at $7,500.00***

- **Retain existing payment caps**
    - (329) No Till - $5,000
    - (528) Prescribed Grazing, Adaptive Mgmt. - $15,000.00
    - (645) Upland Wildlife Habitat Mgmt. - $7,500.00
    - (595) Integrated Pest Mgmt. - $10,000.00
        - **Action: All remain unchanged for FY2021**

- **Practice Payment Schedule – Payment Rate Calculation**
    - Localize scenario cost determinations (4 state region too large)
        - LWG Comment: Supplemental funding from NRD can be inaccurate if rates reflect region as opposed specifically to Nebraska
            - ***Action: No change for FY2021. Practice component costs are based on Regional cost data as required by National policy and procedure.***

    - Recommend locally based payment rate using bills submitted from producers.
        - LWG Comment: Actual bills are needed in order to determine if payment rate is too high or too low.
            - ***Action: Monitor practice payments in this Local Work Group area during FY2021 and implement procedure to request receipts for practices applied if it is determined that additional receipts are needed for quality assurance or for assessment of cost data.***

- **Additional Fund Pools Requested**
  - Forestry
  - Long Pine Watershed
  - Infrastructure Repair
  - Cover Crops
  - Grassed Waterway
  - Farm Technology
  - Water Quality
    - ***Action: Concur, support local ranking decisions being made by LWGs.***

- **EQIP application cutoff dates**
  - Multiple Recommendations
    - ***Action: Establish mid-November application cutoff and January ranking deadline.***

Q: Tim K. - I would like to ask about the possibility of exploring cost share for portable fencing and portable water systems to help enhance marginal grazing lands and also the usage of cover crops.

A: CRAIG - fencing and water on cropland. Our conservation practice standard in the Tech Guide does not include authority to c/s on portable watering facilities. We can c/s on portable fence, but only as a part of an overall grazing system for interior cross fences. And it is limited to the perimeter of the largest paddock.

Q: GEORGE - Why was Practice 395 – Stream Habitat Improvement or Management removed from the EQIP High Priority Practices?

A: CONOR - Due to the fact that we are limited to a total of 10 High Priority Practice designations for EQIP, practice 395 was removed and replaced with 420 wildlife habitat planting for FY21 after some review and consideration required for deeming practices as high priority. We wanted to be sure to include 420 this year for its wildlife habitat benefit and after some review of 395 use here in NE, practice 420 was deemed more suitable and more likely to be utilized.

Q: ANDY - If you are using the GARC percentage as the cap why would you spend the money on the appraisals? Why would you not do a percentage of the appraisal? Shouldn't percentage of appraisal represent the fair market value for the easement?

A: The way the GARC has worked in the past is that we still do the market analysis to determine the fair market value, so by doing that we still need to have a minimum number of sales in each one of our areas. In the last year or two there has not been enough sales to establish a GARC rate that we could automatically pay. So we were required to do an appraisal anyway & the GARC rate now will establish a CAP or how high the maximum number of acres.

Q: DENNIS - Soil Smoothing. Slide used example of terraces eroding. Are we not opening ourselves up later on that we will be paying people to level other irregularities of a field? If I have a field or bought a field that has deteriorating terraces and those terraces cause problems for my equipment, is it really the responsibility of the taxpayers to pay for that inconvenience to the existing or new landowner?

A: BRAD - You make very good points about how this could be mis-used. We can control this by defining when and where this practice will be applied by issuing State policy. We currently do this for most practices. This can also be controlled through the application ranking process by using points and prioritization tools to designate applications as high - medium - low priority.

CRP SIGNUPS UPDATE & NEW EMERGENCY HAYING & GRAZING APPROVED COUNTIES IDENTIFIED – *FSA*

- CRP ENROLLMENT 2020
  - CREP
    (Conservation Reserve Enhancement Program) - Platte -Republican
    - In 22 counties
    - 250 offers
    - 26,420 Acres

  - FARMABLE WETLANDS
    - Offers in 11 counties
    - (Antelope, Box Butte, Boyd, Chase, Gage, Knox, Nance, Perkins, Red Willow, Saline and Sheridan)
    - 39 offers on 471 acres
    - 222 acres of wetlands and 249 acres of buffers

  - Continuous Signup
    (Regular)
    - 1,177 offers Statewide
    - 14,995 acres
    - On 24 different practices

  - General Signup
    - 1,177 offers Statewide
    - 14,995 acres
    - On 24 different practices

  - Grasslands
    - 1050 offers Statewide
    - 478,880 Acres

  - Additional Signup
    Expected

  - Emergency CRP Haying and Grazing
    - Since July 7th, 40 Counties have been approved for Emergency Haying and Grazing
    - As of 9/3, four counties have triggered eligible for Livestock Forage Program (LFP). (Sioux, Burt, Douglas, Washington)
    - Haying/Grazing or LFP can still trigger through the end of our Grazing season (10/15.)

CONSERVATION PRACTICE STANDARDS REVIEW PROCESS – *Britt Weiser, NRCS*

- Conservation Practices Standards
  - Contains information on why and where the practice is applied.
  - Sets forth the minimum quality criteria to achieve the practice's intended purpose.
  - Conservation practice standards must be met to qualify for payments in NRCS programs.

- These practices are housed in Section IV of the Field Office Technical Guide located at
  - https://efotg.sc.egov.usda.gov

- NRCS currently has 170 conservation practice standards. Examples include:
  - Engineering practices like terraces, waterways, irrigation sprinkler, dams
  - Vegetation practices like cover crops, range plantings, wildlife seedings
  - Management practices like nutrient management, irrigation water mgt.

- Conservation Practice Files:
  - *CPS = Conservation Practice Standard*
  - *SOW = Statement of Work (outlines Items required for practice)*
  - *IR = Implementation Requirements, previously known as a job sheet.*
  - *We provide this to producers and contractors.*

- Revising Conservation Practices
  - To stay up with current science, conservation practice standards must be reviewed and revised at a minimum every five years.
  - The revision process begins at the national level.
  - Within one year after the national practice standard is revised, each state must revise their state standard with the national revisions plus any other state revisions desired.

- Notification of Practice Revisions
  - National – when a national practice standard is revised, notification is placed in the Federal Register regarding the draft practice revision.
    - This notification is sent to the State Technical Committee.
    - The practice is not finalized until after the comment period from the Federal Register.

  - State – when revising a state practice standard, the applicable NRCS state specialist (agronomist, engineer, etc) solicits input from University professors, partner organizations, and others with expertise, etc.
    - The State Technical Committee is consulted when the proposed practice changes are significant and/or controversial.
    - Additional Notifications of State Practice Revisions
      - Recently, a member of the Nebraska State Technical Committee noticed the 590 Nutrient Management Standard had been revised and posted in our Field Office Technical Guide in July.
      - We sent this member a list of the revisions made to 590.
      - In the future, we will let the State Technical Committee know of the conservation practices we plan to revise in the next year.
        - Anyone interested in seeing a draft revision of a practice standard can let us know. We will send you the draft and solicit your feedback on the revision.

- Current and Upcoming Conservation Practice Revisions
  - Corey Brubaker, NRCS State Agronomist is currently working on
    - Pest Management – minor changes from the national standard will be incorporated.
    - Developing cover crop seeding guidance to address species and conditions where it's appropriate to seed by aerial or broadcast seeding methods.

- Ritch Nelson, NRCS State Wildlife Biologist is currently working on
    - 420 – Wildlife Planting – this is a new practice standard that separates out several wildlife-focused plantings into one practice standard. Criteria for commonly targeted species such as upland gamebirds, pollinators, and monarch butterflies will be outlined.

- A national notice was received on August 19 notifying us of several Engineering standards that will be updated in 2021. This will be sent to the State Technical Committee with minutes from this meeting.
- Another national notice is anticipated soon for Ecological Science practices to be revised.

NEW NEBRASKA GRASSLAND CONSERVATION PROJECT – *Dirac Twidwell, UNL*

PLEASE WATCH THE YOU TUBE VIDEO FOR MORE IN DEPTH DISCUSSION & MORE DETAILED DESCRIPTIONS.

- **Neil Dominy –**

  Back in March, Craig approached the science community locally and nationally asking what more can we do for Grassland Conservation?

  A 4-state initiative (NE,KS,SD,OK) was discussed and created to focus on conserving grasslands under pressure, due to woody species invasion. This project will be a landscape conservation initiative across the great plains.

  A couple of goals for the project are to ensure science is coming before programs science and prioritization is placed in the right place on the landscape these goals will lead to the best defense and tactics to manage encroachment over time.

  Working Lands for Wildlife projects were solicited in August. This project was outlined and is being sent in for consideration. This dove tails perfectly into the goals of the grassland conservation project, which aims to improve grazing land production, Wildlife biomes, and conservation targeting. Our Working lands for Wildlife initiative in the Calamus area will still be an initiative in Nebraska.
  We are excited to have Dr. Dirac Twidwell on board with us as a science advisor and he is going to lead us through the presentation today.

- **A grand challenge for the 21st century is to avoid undesirable transitions that are so severe that their consequences go beyond the traditions of any single discipline.**

  - How can we provide earlier warning of state transitions?
    - Because the scales at which transitions occur this century will be unprecedented since resilience concept emerged

  - Generalized resilience indicators have been a major pursuit in recent years in the science because of their potential to provide earlier warning of ecological change *(Roberts et al. 2019 Nature CC; Allen et al. 2019 Nature Sustainability; Garmestani et al. 2019 PNAS)*

- **Resilience as an emergent property (Holling's resilience):**
  - The amount of change a system can withstand before it crosses a threshold and fundamentally changes.
  - This definition accounts for the potential of a system to exist in alternative states.
  - Whether alternative states actually existed was still a major theoretical debate 20 years ago.
  - **Subsumes other definitions of resilience based on a rate (bounce-back) or a process (build resilience/build health).**

- **What is our spatial game plan for tackling rangeland management problems?**
  - But….
    - How do we incorporate scale and landscape context?
    - Where are undesired state changes actually happening through time?

  - Bottomline….
    - Our current management is not performing to expectations
    - We need game plan to win (*right practices, right places*)
    - RAP data can be one piece of the puzzle

- **But this knowledge only reflects changes over time. Real solutions and real impacts also require an understanding of the spatial scale of the problem.**
  - Transitions in nature exhibit strong spatial order, but we have lacked the technology and data to detect and image spatial change.

- **Classical view of transitions in nature**
  Time (not space)
  - *Four major advances in spatial resilience/regimes*
    - Ecological regimes represent self-replicated patterns in structure and function that are conserved in space and time.
    - The scale of replication is what we commonly use in ecology to assign the identify of a patch, landscape, ecoregion, or biome.
    - All ecological regimes are finite in space; thus, where one regime ends another begins
    - As regimes transition, their spatial context breaks-down and gives a signal of spatial irregularity.

  - These serve as the basis for our ability to understand the spatial context of ecological regimes, their scale of occurrence, and how they transition……and with this understanding, we can better manage to avoid undesirable transitions.

- **Rangeland Analysis Platform (RAP)**
  - Percent cover
  - Western U.S. rangelands
  - Random Forest algorithm
  - Free online: https://rangelands.app/rap

- Spatial Imagine & Screening for Regime Shift
  - Image vegetation state boundaries
  - Track transitions over space, time, and scale

        - Built with RAP data
        - Computed in moving window algorithm
        - Utilizes cloud-computing (Google Earth Engine)
        - Property-to-national extents
        - 19 years
        - 10 functional group combinations
        - 1,140 images for national analysis
        - 4,320 computing hours for largest window

    - **New technologies and computational power now make it possible to screen for rangeland transitions at scales needed to support individual landowners to federal planning**
        - **Screening** is a strategy used in medicine for prevention and early detection of potential health problems. Screening identifies the possible presence of a disease in individuals without signs or symptoms.

    - Pioneering an approach to screen for transitions and implement large-scale resilience planning in rangelands
        - **What is large scale resilience planning?**
            - Large scale resilience planning emphasizes the conservation and protection of systems at large scales. Local management becomes compromised when the larger system is changing (shown for increasing woody dominance in the map as areas turn red).
            - New screening tools now make it possible to track transitions in vegetation at an unprecedented range of scales.

        - **Problematic rangeland transitions have three important signals:**
            - Persistent in space and time
            - Non-stationary (moving in space over time)
            - Transcend scale (increase in size/spatial scale over time)

    - **Questions**
        - Where do alternative states occur? Where does one end and another begin?
        - How do we understand the scale of transitions ?
        - Where are state transitions happening over time?

    - **Brief methodology overview**
        1. Use spatial covariance to detect spatial transitions separating states
        2. Repeat across scales ranging from local to regional
        3. Test whether spatial transitions separating states are non-stationary over time and moving in space

    - **Overview of spatial computation**
        - 18 years
        - 10 functional group combos
        - 5 window sizes ranging from local properties to regional scales
        - 900 images for national analysis
        - 4,320 computing hours for largest window

- **Overview of temporal computation**
  - Run non-stationarity test
  - Determine best model of temporal change

When the higher values of one functional group correspond to the lower values of an alternate functional group, then spatial covariance is negative. In other words, the functional groups exhibit opposing spatial behavior and do not coexist (given the spatial scale of analysis). A non-stationary boundary moves over time, causing one state to expand at the expense of the neighboring state.

- Why is it so important to understand what state you are in? …because it compromises management and conservation expenditures.

- Waiting to act until a state transition occurs often leads to hysteresis, which reduces project lifespans.

❖ SEE SLIDES ON HANDOUT

- Systems-level consequences:
  - Rancher livelihoods,
  - Wildfire danger,
  - Human health,
  - Water,
  - Endangered species,
  - School funding,
  - Regulatory pressure

❖ SEE SLIDES ON HANDOUT

- Summary of BUL Assessment (2000-2017)
  - All BULs in the tallgrass prairie zone are transitioning to tree dominance.
  - All BULs in the mixedgrass prairie zone have increased in tree cover since 2000.
  - All Sandhills BULs have increased in tree cover (at early stages of woody transitions).
  - BULs in the shortgrass prairie zone are currently the most stable.
  - No BUL showed declines in tree cover over past 2 decades.

❖ Denial about woody encroachment potential comes from 1890s – 1920s science.
  - Eastern redcedar encroachment was observed across the western Sandhills where a seed source was present

❖ Nebraska still has some of the most intact grasslands remaining in the world (2000 – 2017).

❖ Traditional guidance is reactive and forces management to occur everywhere
  - And while control costs skyrocket……income from forage production crashes

❖ *When does this threat become a resource concern?*
  - *Protect the Core → Defend the Core → Grow the Core*
  - *New Guidelines for Managing Woody Encroachment*

❖ Building resilience in grasslands
  - Landowner Led, Science Informed, Agency Supported

- **Science Support for a New Grassland Conservation Initiative NRCS States:**
  - **Nebraska,**
  - **Oklahoma,**
  - **Kansas,**
  - **South Dakota**

Science Support for Ramping Up Conservation in the Great Plains to Address Encroachment of Woody Species

25 April 2020

CCG Application submitted to Nebraska NRCS via NRCSNEBProposal@nrcs.usda.gov

Dirac Twidwell[1] & David Naugle[2]

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In Spring 2020, NRCS State Conservationists across a four-state region of the Great Plains including Nebraska, South Dakota, Kansas and Oklahoma, agreed to ramp up rangeland conservation by addressing woody expansion, particularly eastern redcedar. At risk: the sustainability of resources dependent on rangelands in the Great Plains; catastrophically impacted by the collapse of rangelands from woody encroachment are livestock production, ranch profitability, wildfire disaster avoidance, water security, wildlife habitat, and social and community programs. To meet the initial 3-year needs of this new initiative, Dirac Twidwell

- A New Great Plains Grasslands Initiative: USDA NRCS Working Lands for Wildlife Program
  - Identifying Rangeland Cores: Idaho Cheatgrass Challenge
  - Using Wildlife Strongholds to Target Delivery
  - Leveraging Cultural Will: Red Hills (KS) Landscape

- NEXT STEP IN THE PLAINS
  - Identify priority areas to anchor conservation
  - Establish cores → Defend the cores → Grow the cores
  - Right practice, Right place, Right scale
  - Adapt practices to prevent resource concerns and improve project lifespans
  - Technical guidance should match realities of restoration; requires rehab
  - Dream Big
  - Build Cultural Will
  - Identifying Priority Areas: due Oct. 15

- Part of a National Effort to Address the #1 driver of national rangeland loss in recent decades
  - A New Great Plains Grasslands Initiative: USDA NRCS Working Lands for Wildlife Program
    - *This is emerging as the largest grassland conservation initiative since the Conservation Reserve Program*
    - Responsible for $750 Million of on-the-ground conservation last decade

Please send any further questions or comments to Tami Nordman @ tami.nordman@usda.gov

FUTURE 2020 MEETINGS:

- **December 3, 2020**
- **March 4, 2021**
- **June 3, 2021**
- **September 9, 2021**
- **December 2, 2021**