

NATURAL RESOURCES COMMITTEE – NEBRASKA STATE LEGISLATURE

NRD PROJECT/PROGRESS LR23 REPORT

1. Central Platte Natural Resources District

2. Central Platte NRD's involvement/operations of projects/practices related to each area of responsibility.

NRD Authorities By Law

Central Platte NRD prioritized the 12 responsibilities to meet the District's needs. The following are managed as combined responsibilities:

1. Erosion prevention and control. 2. Soil conservation.

PROJECTS

Nebraska Buffer Strip Program	Central Platte Demonstration Projects
Cover Crop Research and Demonstration Projects	Cost-Share Programs
Ogallala Aquifer and Platte River Recovery	Ogallala Aquifer Initiative
Precision Conservation Management Program	Resilient Futures for Nebraska Soils - Soil Health Grant
Wetland Easements	

The following are managed as combined responsibilities:

3. Prevention of damages from flood water and sediment. 4. Flood prevention and control.

PROJECTS

Warm Slough/Trouble Creek Flood Control Project	Prairie Silver Flood Control Project
Clear Creek Watershed	Kearney Northeast Flood Control Project
Platte County Project	Wood River Flood Control Project
Buffalo Creek Watershed-Structures	Upper Prairie/Silver/Moores Flood Control Project
Dams Inventory and Rehabilitation	Elm Creek/Turkey Creek Watershed
Platte Valley Industrial Park	Spring and Buffalo Creek Watershed
Lower Wood River Watershed	Elm and Turkey Creek Watershed
Lake Helen – Gothenburg	Grand Island Dewatering Study
Kirkpatrick Memorial Park Lake	Ice Jams on the Platte River

5. Drainage improvement and channel rectification.

PROJECTS

Administer Irrigation Runoff Rules and Regulations	Lepin Ditch Flood Control Project
Cairo Downtown Improvement Project	City of Gibbon Drainage Project
Odessa Area Flood Control Project	Doniphan Drainage Project
Kearney West Clearing Project	Dry Creek Clearing Project
Amick Acres Improvement Area	Wood River Watershed
Moores Creek Flood Control Project	

6. Water supply for any beneficial uses.

PROJECTS

Groundwater Quantity Management Plan	Groundwater Level Monitoring
Suspension on Well Drilling	Certification of Irrigated Acres
Irrigation Well Registration	Integrated Management Plan
Cooperative Hydrology Study	Transfer of Irrigated Acres
Water Banking Program	Buyout of Six Mile Canal

6. Water supply for any beneficial uses. (continued)

PROJECTS

30-Year Acreage Reserve Program	Groundwater Exchange Program
Airborne Electromagnetic Survey	Central Nebraska Irrigation Project
ArcGIS Solutions Platform	Evapotranspiration Map
GeoCloud Database	Groundwater Evaluation Toolkit
Light Detection and Ranging	Magnetic Resonance Sounding
Rehabilitation of Surface Water Canals – Cozad Canal , Thirty Mile Canal, Orchard Alfalfa Canal	
Nebraska Water and Energy Flux Measurement, Modeling and Research Network	
Basin-Wide Plan for Joint Integrated Water Resources Management of Over-Appropriated Portion of the Platte River	

The following are managed as combined responsibilities:

7. Development, management, utilization and conservation of groundwater and surface water.

8. Pollution control.

PROJECTS

Groundwater Quality Management Plan
Online Reporting Form
Crop Irrigation and Demand Network
Project SENSE
Decommissioned Well Program
Nebraska Buffer Strips – Administration of Funds

9. Solid waste disposal/sanitary damage.

Vadose Zone Study
Central Platte Demonstration Projects
Cover Crops
Testing Agriculture Performance Solutions
Irrigation Run-Off and Erosion Plan Update
Chemigation Program

10. Development and management of fish and wildlife habitat.

PROJECTS

Platte River Recovery Implementation Program – First and Second Increments	
Nebraska Habitat Conservation Coalition	Platte Basin Habitat Enhancement Project
Platte Valley Phragmites Control Project	Instream Flow Rights

11. Development and management of recreational and park facilities.

PROJECTS

Kearney Area Trail System	Wood River Flood Control Project Trail
B-1 Reservoir	Central City/Marquette Trail
Johnson Lake Trail	Crane Meadows Stabilization
Great Platte River Road Archway Stabilization	Alda Crane Viewing Site
Richard Plautz Crane Viewing Site	Urban Conservation Program

12. Forestry and range management.

PROJECTS

Nebraska Conservation Tree Program	Tree and Weed Barrier Cost-Share Program
Nebraska Forest Restoration Partnership	Urban Forestry Program
Planned Grazing	Prescribed Fire Program
Grazing Deferment Program	Prescribed Fire Training Program
Native Prairie Outreach Project	

3. Central Platte NRD's active projects.

RESPONSIBILITY: SOIL CONSERVATION AND EROSION CONTROL

ACTION: Cost-Share Programs

Financial assistance is provided to private landowners through cost-share for installation of soil and water conservation practices. Established soil conservation practices for controlling the sediment movement and reduce the impact associated with runoff from agricultural areas.

UNIQUE TO CPNRD:

CPNRD Cost-Share Programs Cost-share is budgeted for trees, weed barrier, center pivot incentive, streambank stabilization, well decommissioning, urban conservation, burn preparation, grazing deferment, prescribed fire, cover crops, soil moisture sensors, flow meters and capacitance probes. CPNRD administers funds for the Nebraska Soil and Water Conservation Fund, Corners for Wildlife, Nebraska Buffer Strip Program and WILD Nebraska.

GOAL: Use each acre within its capability and to treat each acre according to its needs.

COST: \$12,557,983.73 of cost-share distributed since 1972

Ogallala Aquifer and Platte River Recovery Cost-share through the Regional Conservation Partnership Program allows producers to apply more efficient irrigation techniques, install conservation practices, and convert irrigated acres to non-irrigated farmland.

PARTNERS: Central Platte NRD, Twin Platte NRD, Natural Resources Conservation Service

GOAL: Address stream flows to meet endangered species habitat goals.

COST: \$1.7 million since 2015

Ogallala Aquifer Initiative Assistance for farmers to convert irrigated land to non-irrigated on a permanent or temporary basis and to improve irrigation systems to increase efficiency and management technologies.

GOAL: Address surface water and groundwater quality and quantity concerns to reduce impacts to the Platte River and local groundwater supply.

PARTNERS: CPNRD, NeDNR, Nebraska Association of Resources Districts

COST: \$3,243,254 in CPNRD since 2011

Soil Health Grant The Nature Conservancy (TNC) received a *Resilient Futures for Nebraska Soils* grant to provide farmers with technical and financial assistance to adopt cover crops, no-till and diverse crop rotations that store carbon in the soil. The stored carbon can be utilized by private companies to help reach their goals around sustainability.

PARTNERS: Central Platte NRD, Upper Big Blue NRD, NRCS, The Nature Conservancy, Ecosystem Services Market Consortium, Cargill, Target and McDonald's.

GOAL: Enroll 100 producers to install soil health practices on approximately 100,000 acres of farmland.

COST: \$4.4 million- RCPP grant | \$8 million- The Nature Conservancy

Precision Conservation Management Program (PCM) A Precision Conservation Specialist will be hired to evaluate conservation practices on producers impact to the environment and profitability to make positive water quality and climate impacts.

PARTNERS: CPNRD, Illinois Corn Growers Association Note: PCM has 30 contributing partners, including NRCS, NASA Harvest, National Fish and Wildlife Foundation, Ecosystem Services Market Consortium, Soil Health Partnership, Field to Market® and The Nature Conservancy.

GOAL: Help farmers understand and manage risks associated with adopting new conservation practices to make sound financial decisions.

COST: \$400,000 to be reimbursed by partners

RESPONSIBILITY: FLOOD PREVENTION, FLOOD CONTROL AND CHANNEL RECTIFICATION

Flood risk reduction projects are designed to provide for orderly development of flood control and other related resources activities in watersheds, with each watershed plan encompassing several individual project plans in the total watershed development.

ACTION: Central Platte NRD has developed over 30 flood control structures.

GOAL: Control floodwaters and provide open floodways to keep floodwater damages to a minimum.

UNIQUE TO CPNRD:

Warm Slough/Trouble Creek Flood Control Project Due to a history of flood damage to agricultural and urban property within Central City, a project was developed to reduce flooding caused by storm runoff into the Warm Slough, Dry Run and Trouble creeks. Construction near Grand Island took care of storm runoff from the city, channel clearing, and renovation from Grand Island to Central City. The project has improved drainage of the entire watershed.

PARTNERS: Central Platte NRD, Merrick and Hall counties, the City of Grand Island and Central City.

GOAL: Reduce flooding caused by storm runoff into the Warm Slough, Dry Run and Trouble creeks.

COST: \$133,000

Prairie-Silver Flood Control Project Flooding was studied by the CPNRD in central Hall County just west of Grand Island to determine the cause of channel overflow after large storm events. Two channels were cleaned out and training levees were constructed to prevent overflow in 1986. Construction and land leveling in the area disturbed natural drainage flows along the Prairie/Silver Creek, northwest of Grand Island. In 2000, a uniform drain was installed and culverts added for a two-mile stretch.

PARTNERS: Central Platte NRD, Hall County

GOAL: Control flooding on two short stretches of Prairie Creek and Silver Creek.

COST: Cost was \$22,000; CPNRD's cost was \$17,500.

Clear Creek Watershed The Clear Creek Watershed encompasses 75,700 acres. Starting in 1978, 15 flood control structures were constructed in the watershed.

PARTNERS: Central Platte NRD, Polk County

GOAL: Control flooding on the Clear Creek watershed in Polk County.

COST: Cost-share from the Natural Resources Development Fund was received on five of the larger structures. Polk County provided cost-share funds to construct additional smaller structures including road structures.

Kearney Northeast Flood Control Project In 1990, the City of Kearney, Buffalo County, & CPNRD, initiated a project due to the expansion to the northeast of the city of Kearney. CPNRD obtained aerial photography and participated in survey work needed for topographic mapping of the affected area. The plan for the watershed included channel improvements, drop structures, road crossings, and a detention cell. As part of its bridge replacement program, Buffalo County built a road structure. Work on the project was completed in three phases including widening the existing channel, purchasing properties for construction of detention cells and channel improvements, and excavation for water storage.

PARTNERS: Central Platte NRD, Buffalo County, and the City of Kearney.

GOAL: Control flooding in the northeast portion of the city of Kearney.

COST: \$3.4 million

Platte County Project Improvement area located just southwest of Duncan.

GOAL: Improve drainage and flood control for irrigated cropland in Platte County.

COST: Annual maintenance cost of \$500-\$1,000

Wood River Flood Control Project The Wood River has 173 miles of channel meandering through the Platte River Valley with numerous flood control structure sites in its upper reaches but there were few along the eastern reaches of the channel. That lack of flood control structures caused extensive damage in Grand Island during heavy rain events. The Army Corps of Engineers conducted reconnaissance studies and determined the best route to carry excess water from the Wood River and Warm Slough into the Platte River. The entire project was completed and dedicated in May 2004 and the benefits included flood control for Grand Island, rural Hall and Merrick counties, and groundwater quality improvement. The Army Corps of Engineers determined the project saved \$23.7 million in damages; and homeowners and insurance companies over \$8 million after the flood in 2005.

PARTNERS: Army Corps of Engineers, CPNRD, City of Grand Island, Hall County and Merrick County.

GOAL: Carry excess water from Wood River and Warm Slough into the Platte River.

COST: Total cost of \$15M with the CPNRD responsible for \$1.4M.

Elm Creek/Turkey Creek Watershed In 2006, a community meeting was held on the Elm Creek Watershed Flood Control Study. The plan included a 975-acre flood control and re-regulating reservoir to be located northwest of Elm Creek, and two dry flood control structures on Turkey Creek. Geotechnical investigation and seepage analysis drilled 30 test borings at the reservoir site and adjacent lands to determine if leaching would raise water tables to a level that would create problems for cropland or basements. Estimated cost was \$35 million. The CPNRD Board cut the project from the budget in 2013.

PARTNERS: Central Platte NRD, NPPD, State of Nebraska, Platte River Recovery Implementation Program

GOAL: To provide flood reduction and recreation benefits on the Elm Creek and Turkey Creek Watershed.

COST: \$125,000

Buffalo Creek Watershed-Structures Feasibility planning for flood control was completed in Buffalo Creek Watershed in Custer, Dawson and Buffalo counties. CPNRD received cost-share funds from the Natural Resources Development Fund to construct seven flood control structures.

B-1: Construction on B-1 included a supply canal, 1.6 miles of power line relocation, and 1/2 mile county road improvement. In addition to flood control, the project was expanded to include recreation and groundwater recharge. Cracks were identified in the structure in 1983, so a chimney drain system was installed on the backside in 1985. In 1987, the reservoir was opened for fishing. CPNRD has a diversion right of 4,218 AF of water/year to fill reservoir. A study in 2018 was initiated to determine options to account for groundwater recharge and their effect on stream flows from the B-1 Reservoir.

F-7: In 1990 cracks were repaired at F-7. Two sites in Buffalo Creek Watershed near Lexington were not

feasible and planning efforts were discontinued.

GOAL: Improve flood control in the Buffalo Creek Watershed in Custer, Dawson, Buffalo counties

COST: F-7: \$11,500 and B-1 Study: \$148,588. Operation and maintenance as needed for all structures.

Upper Prairie/Silver/Moores Flood Control Project A detailed hydrology analysis for upper parts of the Dry, Prairie, Silver and Moores Creek watershed showed that a 100-year flood would inundate 23,000 acres south of Hwy 2 and produce crop damages of \$3 million in a 10-year flood. The project protects northwestern Grand Island from flooding; reduces future flood damages to crops, properties and infrastructures; and eliminates an estimated \$130 million in damages during a 100-year flooding event. Construction: 3 floodwater retarding sites in upland areas, 1 upland detention site, a series of detention sites in lowland areas, 3 excavated off-channel detention sites, low-level berm installation, and clearing to improve capacity. Project included acquisition of 1,800 acres for easements; excavation of 3,500 AF of off-channel storage, 6 upland floodwater detention dams and installation/replacement of roadway culverts. Water level sensors, cameras and rain gauge sensors were placed at strategic locations for the Flood Alert System and Monitoring Equipment.

RESPONSIBILITY: FLOOD PREVENTION, FLOOD CONTROL AND CHANNEL RECTIFICATION *(continued)*

PARTNERS: Central Platte NRD, City of Grand Island, Hall County, Merrick County

GOAL: Prevent flooding in the upper parts of the Dry, Prairie, Silver, and Moores Creek watershed.

COST: \$28 million

Dams Inventory CPNRD has 40 dams that are nearing their 50-year lifespan. A conceptual design of dams for multiple beneficial uses was developed to evaluate up to 150 existing and potential dam sites including the localized water balance, recharge potential, storage capacity, design/construction considerations and conceptual cost for dam improvement or new construction. In March 2021, design improvements were made for Box Elder, Clear Creek, and Jones Creek dams as part of a long-term plan to replace, update, or remove the aging structures. Work will include channel improvements downstream, dredging around the drawdown, riprap along the dam face, complete replacement of the drawdown with structural elements, repair of slough in auxiliary spillway, leveling of a low portion of the top of dam, and replacing the riser and spillway pipe.

GOAL: Conduct an inventory of dams that are 1 acre or larger.

COST: The NRD received grant funding from the Water Sustainability Fund in the amount of \$56,270.00 with the balance being funded by CPNRD in the amount of \$84,410.

Platte Valley Industrial Park In 2019, the board approved a request from the City of Grand Island and Grand Island Area Economic Development Corporation to allow water to be diverted into the south side channel of the Wood River Flood Reduction Project. In 2021, Olsson was selected to design a drainage ditch which will require grading existing county road ditches, easements, and installation of a 36" storm sewer pipe that will drain into the south channel of the Wood River Flood Control Project. The final design is scheduled to be completed by August 1, 2021.

PARTNERS: CPNRD, Grand Island Economic Development Corporation, City of Grand Island, Hall County

GOAL: Divert water into the south side channel of the Wood River Flood Reduction Project.

COST: Estimated \$650,000 project cost will be shared by the partners with Central Platte NRD's estimated cost being \$180,000.

Flooding Planning In 2020, CPNRD was selected to receive Watershed and Flood Prevention Operations Program (WFPO) grants from NRCS to identify what is needed to address flooding within the following watersheds. The two-year grants pay 100% of costs to complete an Environmental Assessment (EA) for each watershed. Below are the watershed projects:

Spring and Buffalo Creek Watershed HDR Engineering was hired to develop a Watershed Plan-EA for Dawson County. The Plan-EA study area is approximately 266,870 acres, primarily agricultural, grass/pasture and row crops. An online public scoping meeting was held October-November 2020. Milestone meetings with NRCS/USACE are being held and the project is in the data collection phase.

PARTNERS: Central Platte NRD, NRCS, and USACE

GOAL: To address flood prevention and other resource concerns in the Spring and Buffalo Creeks Watershed to protect Cozad, Lexington, Overton, agricultural land, irrigation canals.

COST: \$625,000 | Land Rights/Clearing - \$500,000 (US Dept. of Ag grant would pay construction costs)

Lower Wood River Watershed JEO and EA Consultants were hired to develop the EA for portions of Buffalo, Hall and Merrick counties. A virtual public meeting was held in August 2020. Milestone meetings have been held with NRCS/USACE. Alternative development, evaluation of potential projects, and stakeholder updates have taken place.

PARTNERS: Central Platte NRD, NRCS, USACE

GOAL: Address flood prevention and other resource concerns in the Lower Wood River Watershed to protect Gibbon, Shelton, Wood River, Alda, Grand Island, agricultural land.

COST: \$725,000 | Land Rights - \$15 million (US Dept. of Ag grant would pay construction costs)

Elm and Turkey Creek Watershed JEO was hired to develop the EA for Dawson and Buffalo counties. The Project covers more than 160,000 acres of drainage including the entire Elm Creek Watershed and the entire Turkey Creek Watershed. Milestone meetings with NRCS/USACE are being held with the project in the data collection phase.

PARTNERS: Central Platte NRD, NRCS and USACE.

GOAL: Address flood prevention and other resource concerns in the Elm and Turkey Creek Watershed to protect Odessa, Kearney, agricultural land.

COST: \$742,000 | 7 Dams Land Rights - \$1,680,000; Diversion Land Rights - \$7,680,000
(US Dept. of Ag grant would pay construction costs)

Lake Helen In 2016, the lake was drained to excavate 171,773 cu/yds of sediment, stabilize 3,391 LF of shoreline, develop underwater shoals, install a circulation system, dam repair, install pier and boat ramp. Sediment/nutrient loading from outside the lake was addressed by treating it with aluminum sulfate to precipitate phosphorus, installing a deeper well and stocking recreational fish.

PARTNERS: Central Platte NRD, City of Gothenburg

GOAL: Restore Lake Helen in Gothenburg for water quality conditions.

COST: \$1.8 million | \$10,000 for bank stabilization through CPNRD's Urban Conservation Program

Grand Island Dewatering Study Using 33 both low and high capacity vertical wells, a study in 2012 identified a practical groundwater dewatering system to remove groundwater from residential basements and minimize impacts on the project area, assessed potential transmission and discharge location and financing options, and impacts on water quality and quantity. Three dewatering areas and areas of contamination were considered with wells proposed to be outside of the plumes. The Grand Island City Council was initially receptive to the updates; however, there has been no further progress.

PARTNERS: Central Platte NRD, City of Grand Island

GOAL: Identify a practical groundwater dewatering system for the project area.

COST: \$103,890

Kirkpatrick Memorial Park Lake Improvements to the lake were completed in 2017 and included 4,000 cu/yards of dredging, 2,500' of bank improvements and a 700' sea wall to the four-acre lake. The project will improve water quality, aquatic habitat, public access, and provide an area for educational events.

PARTNERS: Central Platte NRD, City of Lexington

GOAL: Improve Kirkpatrick Memorial Park Lake.

COST: \$25,000

Ice Jams In 2011, an agreement was formed to remove ice jams with the agreement stating that if an ice jam were to begin, CPNRD would be the first entity to start the process of calling FEMA and NEMA. In 2016, the Platte River Ice Jam Removal Agreement was dissolved. Instead, the partners will focus on emergency preparedness in the event of an ice jam related to flooding and safety education.

PARTNERS: Tri-Basin NRD, Buffalo, Hamilton, Merrick, Phelps, and Kearney counties

GOAL: Remove ice jams in the Middle Platte River.

COST: Continual escrow account \$50,000; emergency fund of \$37,000 returned after dissolved.

RESPONSIBILITY: DRAINAGE

The Central Platte Valley is a relatively flat terrain. Many water drainage problems in the District are solved by cooperation between individual landowners and adequate planning of land leveling, culverts, bridges, and urban development.

GOAL: Help provide open and closed drainage systems to dispose of excess surface and subsurface waters from non-wetland areas.

UNIQUE TO CPNRD:

Lepin Ditch Flood Control Project A study by the Nebraska Department of Roads (NDOR) and CPNRD determined when I-80 was constructed, runoff was redirected from Lepin Ditch to another crossing site under I-80. A culvert was placed near the natural channel to allow runoff to flow under the Interstate. Easements were obtained from area landowners for construction/maintenance of the ditch. Hall County provided site preparation and ditch excavation in 1995; and is responsible for annual maintenance.

PARTNERS: Central Platte NRD, NDOR, Hall County

GOAL: Solve excess storm runoff over-loading the “old north channel” of the Platte River.

COST: Total cost: \$700,000 | CPNRD’s cost \$120,000

Cairo Downtown Improvement Project In 2007, CPNRD approved the construction a 48” drainage outlet to divert excess water along the Hwy 11 corridor. The previous drainage system could not handle a one-year rainfall event, which caused overflow ponds and flooding in low areas.

PARTNERS: Central Platte NRD, City of Cairo

GOAL: Divert excess water along the Hwy 11 corridor.

COST: CPNRD \$50,000; City of Cairo \$2 million

City of Gibbon The proposed drainage project included relocating the existing sluice gate, improvements on hydraulic conditions at the outfall, and installing an automated sluice gate system. In 2015, a review of what has been accomplished towards drainage issues and additional needs was studied. CPNRD has facilitated meetings with the City of Gibbon and Buffalo County to address remaining drainage problems.

PARTNERS: Central Platte NRD, City of Gibbon, Buffalo County

GOAL: Improve drainage in the City of Gibbon.

COST: \$150,000 | Gibbon added to the Hazardous Mitigation Plan to be considered for Federal funding.

Odessa Area Flood Control Project The two-mile project improved existing roadside and field drainage ditches, culvert replacements and supplement existing culverts. Project boundaries: Odessa Road to the west, 24th Road to the North, and Sartoria Road to the east.

PARTNERS: Central Platte NRD, City of Odessa

GOAL: Improve the Odessa Area Flood Control Project.

COST: \$15,000

Doniphan Drainage In 2015, the Village of Doniphan requested \$4,000 to pump standing water from a detention cell located in the city park and into the curb and gutter system.

PARTNERS: City of Doniphan, Central Platte NRD

GOAL: Remove standing water.

COST: \$4,000

Kearney West Clearing Project In 1999, landowners west of Kearney requested a clearing project to assist with flooding problems along Turkey Creek, also known as the Platte River North Channel. About 2.5 miles were cleared. Snagging and clearing was redone in 2000 and 2001. In 2002, the North Channel of the Platte River/Turkey Creek had eroded to within 5’ of a local sandpit. The Corps of Engineers provided an Emergency

404 permit to the NRD to stabilize the bank.

PARTNERS: Central Platte NRD, Corps of Engineers

GOAL: Clear Turkey Creek to help prevent flooding.

COST: City of Kearney \$1,850 (25%); CPNRD \$13,500

Dry Creek Clearing Project In 1997, debris from a wind storm/tornado fell into Dry Creek channel northeast of Cairo, prompting a request from landowners for a clearing project. In 2012, a three-mile channel improvement was completed to the west of the Central Nebraska Airport and a culvert added under Gunbarrel Road. Maintenance is performed as needed.

GOAL: To clear debris from Dry Creek channel.

COST: \$53,500

Amick Acres Project Amick Acres Project Improvement Area is located in south central Hall County, just to the west of Doniphan. The project diverts flood and drainage water away from Amick Acres residential subdivision by utilizing part of a county road ditch for approximately one mile of channel.

GOAL: To divert flooding and drainage water.

COST: \$25,000

Wood River Watershed In 1972, snagging and clearing was completed from the mouth of the stream to Gibbon. In 2002, one mile was cleared and annual maintenance/spot clearing is completed as needed.

GOAL: Clear Debris from the Wood River

COST: \$47,500

Moores Creek Flood Control Project In 1984, the Nebraska Natural Resources Commission agreed to 65% cost-share for a 3-phase construction plan for the Moores Creek FCP. The project included channel improvements, detention/retention, wildlife habitat enhancement cells on the channel, construction of waterways and bridges. The project was completed in 1995.

PARTNERS: Central Platte NRD, Nebraska Natural Resources Commission, City of Grand Island, Merrick County, Hall County

GOAL: Minimize flooding on Moores Creek.

COST: Land Rights Survey and Design \$191,400

Construction - Phase 1: \$78,100 Phase 2: \$49,500 Phase 3: \$38,500 Total Cost: \$357,500

ACTION: Administer Irrigation Runoff Rules and Regulations

The rules and regulations to control groundwater irrigation runoff have been in effect since 1977 with updates in 2017 to follow the Erosion and Sediment Control Act. If erosion is found on a producer's property, the producer is required to develop a plan to use conservation practices (no-till, cover crops, terraces, waterways) to help treat this type of erosion for conservation compliance and to remain eligible for USDA program benefits.

RESPONSIBILITY: GROUNDWATER, SURFACE WATER AND WATER SUPPLY

Most farmers in CPNRD rely on groundwater for their irrigation needs in CPNRD since it is abundantly available throughout the District. The water supply is under continuous monitoring and a Groundwater Management Plan to address potential shortages has been in effect since 1987.

ACTION: Groundwater Quantity Management Plan - 1987

CPNRD's phased program implements controls when needed. The maximum acceptable decline ranges from 10' in the eastern end of the District to 30' in portions of the west. If the water table falls to 50% of that maximum decline, Phase II would go into effect for area(s) affected, triggering mandatory reductions in irrigated acres, and establishing spacing limits for new irrigation wells. Further declines to 70%, 90% and 100% of the maximum acceptable decline trigger Phase III, IV and V controls respectively, mandating additional cutbacks in irrigated acreage and increased spacing limits for new wells. The Plan is currently being rewritten and will incorporate new data and insight acquired, as well as new rules and regulations implemented.

GOAL: To assure an adequate supply of water for feasible and beneficial uses, through the proper management, conservation, development and utilization of the District's water resources.

ACTION: Groundwater Level Monitoring

Between 450-500 wells are measured each spring and fall for the Groundwater Quantity Management Program in conjunction with Conservation & Survey Division, UNL and USGS. 1982 groundwater levels were established as the benchmark year to compare groundwater level changes as part of the Plan implemented in 1987. CPNRD established 24 subdistricts to monitor groundwater level changes. The change in level is an average, based on the wells measured in each subdistrict and used to compare mean saturated thickness for Quaternary and Ogallala deposits.

GOAL: Monitor groundwater levels within the CPNRD.

ACTION: Suspension on Well Drilling - 2003

CPNRD imposed a temporary suspension of drilling new wells on parts of the District in 2003 to study CPNRD's surface and groundwater supplies. In 2004, NeDNR indicated that the Platte River Basin was fully appropriated and over-appropriated upstream of Elm Creek. Changes were made so existing surface and/or groundwater users would not be faced with less water supply. Wells not subject to the suspension: wells pumping less than 50 gpm, replacement wells, dewatering wells pumping less than 90 days and test hole wells. Variances were granted if determined that construction of a new well was necessary to alleviate emergency situations involving water for human consumption or other good cause shown. In 2006, the entire District was placed in a suspension area when NeDNR designated the District as fully appropriated.

GOAL: Determine if a problem exists between groundwater and surface water within the CPNRD.

PARTNERS: Central Platte NRD, Nebraska Department of Natural Resources

ACTION: Certification of Irrigated Acres - 2006

Landowners were required to certify irrigated acres by December 31, 2014. Landowners were provided aerial maps and number of irrigated acres CPNRD had on record taken from infrared imagery. If landowners disagreed, they were required to obtain an aerial photo and printout of irrigated land from their local FSA office. CPNRD currently has 1,029,218 irrigated acres of which 937,502 acres are groundwater only; 14,359 acres are surface water only and 77,172 acres are co-mingled use.

GOAL: Certify all irrigated acres including variances and water bank transactions and require offsets of new irrigated acres.

ACTION: Irrigation Well Registration

Staff verifies and corrects well registrations within the NRD. Wells that are not properly registered are “illegal wells” and considered a Class 4 criminal misdemeanor violation. There is no charge from the CPNRD or the state to correct locations or change ownership information.

GOAL: Document all irrigation wells in Nebraska.

ACTION: Cooperative Hydrology Study (COHYST)

COHYST improves understanding of the hydrological and geological conditions in the Platte Basin and provides scientifically supportable databases and detailed computer groundwater models to accurately identify and quantify the relationship between the Platte River and adjacent groundwater resource. It also provides information necessary to address "new depletions" to flows in the central Platte River. COHYST assists Nebraska in meeting obligations under Platte River Recovery Implementation Program to analyze proposed activities, provides management data for NRDs along the Platte River, serves as a basis to develop policy and procedures related to ground and surface water, and helps analyze other programs.

GOAL: Develop models to represent real-world features including rivers, streams, groundwater aquifers, groundwater pumping, and canals as a set of mathematical equations. The databases quantify existing groundwater use, river and aquifer data in the Platte River Basin to better understand the groundwater flow system, interrelationships between groundwater and surface water, geology and other aquifer characteristics.

PARTNERS: NET, CPNRD, state and local agencies, water and environmental organizations.

COST: NET- Year 1: \$500,000; Year 2: \$450,000; Year 3: \$450,000; CPNRD's cost: \$6.1 million

ACTION: Water Banking Program - 2007

CPNRD's Water Banking Policy was approved in 2007, defining the process of how a water bank works. The water rights purchased from landowners are deposited into CPNRD's Water Bank. Rates are negotiated by management based on current land values. COHYST is utilized to determine the AF of depletions CPNRD needs to reduce to bring the Platte River back to 1997 levels. After reaching the 1997 level, the OA area west of Elm Creek will need additional water added to the Platte to bring it back to a FA status. The current best estimate of post-1997 depletions to the Platte River due to changes in groundwater irrigated acres between 1997-2005 based on the 2008 COHYST Report on stream depletion is 15,000 AF by 2029.

GOAL: For every acre-foot of water that impacts the river that CPNRD acquires, less regulation and cutback would have to be imposed.

COST: \$8,764,726.37 including fees for water purchases

ACTION: Transfer of Irrigated Acres

Landowners may request a change in the location of certified irrigated acres (transfer) provided that the same amount of water that would be depleted from the river over a 50-year period from consumptive use of groundwater withdrawals are retired from use (offset); and the offset occurs at the same time, rate, and location as the depletion identified by the COHYST model.

UNIQUE TO CPNRD: Transfer Website - 2007

Launched the first irrigation certification website in Nebraska. Users may search for specific parcels of land by using the clickable map interface and allows landowners to view and print aerial photos of land development and improvements since 2003. The public and staff sites are linked and updated simultaneously. Website address: cpnrd.gisworkshop.com.

GOAL: Allows public access to scanned documents with the number of irrigated acres for landowners in the District, infrared imagery taken by CPNRD and all registered wells.

COST: \$31,350

ACTION: Integrated Management Plans (IMP) - 2009

CPNRD directors and staff and the NeDNR worked with stakeholders to develop both a basin-wide and an

RESPONSIBILITY: GROUNDWATER, SURFACE WATER AND WATER SUPPLY (continued)

individual integrated management plan. Although initial goals were being met, original plans required second increments within 10 years. The second increment *Basin-Wide Plan for Joint Integrated Water Resources Management of Over-Appropriated Portions of the Platte River Basin* includes a planning process; activities of the first increment; goals, objectives, and action items; and monitoring. The plan does not include controls. CPNRD's second increment IMP has groundwater controls: 1) groundwater moratorium, 2) certification of groundwater uses, 3) groundwater variances, 4) groundwater transfers, and 5) municipal and industrial accounting. NeDNR's surface water controls: (1) maintaining the moratorium on new surface water appropriations and on expanded surface water uses, (2) transfers of appropriations are subject to statutory criteria and Department rules, (3) continuation of surface water administration and monitoring of use of surface water, (4) no additional requirements of surface water appropriators to use additional conservation measures, (5) no other reasonable restrictions on surface water use.

BASIN PARTNERS: NRDs-North Platte, South Platte, Central Platte, Twin Platte, Tri-Basin; NeDNR

CPNRD IMP PARTNERS: Central Platte NRD, NeDNR

ACTION: Rehabilitation of Surface Water Canals - 2010

The NRD partnered with four canal companies in Dawson County with agreements to buy one canal and rehabilitate three canals. As a Platte Basin Habitat Enhancement/Coalition Program project, grants from NeDNR (40%) and the Nebraska Environmental Trust (20%) paid 60% of project costs. CPNRD shared the remaining 40% of project costs with the canal companies. The canals use surface water irrigation delivery and retiming of Platte River flows to enhance target flows for endangered species. Retiming is accomplished by diverting flows excess to target flows to recharge the groundwater system; or by transferring surface water irrigation rights to instream use, which are diverted from the canal back to the Platte River. Water rights for diverting excess flow for recharge were granted by NeDNR.

GOALS: Groundwater recharge to enhance surface water and ground water supplies, protect water quality, and help CPNRD move closer to a fully appropriated status. The rehabilitations also provide enhanced flows to the Platte River by diverting and retiming excess flows to the river; returning natural flow irrigation rights to the river; and help meet requirements of the Platte River Recovery Program agreement and LB962 to return the Platte River to its 1997 level of use.

Six Mile Canal In 2010, CPNRD purchased Six Mile Canal Company in Gothenburg - the first-ever buyout of a surface water irrigation canal in Nebraska. The Canal had been in operation diverting Platte River water since 1894, withdrawing an average of 2,377 AF of water annually. CPNRD deposited the water rights in the Water Bank to use for the IMP schedule to bring the over appropriated area back to a fully appropriated status.

COST: \$262,880

Cozad Canal - 2012 Cozad Canal began diverting Platte River water in 1894 with water rights to irrigate over 25,000 acres of land between Gothenburg and Lexington. Diversions of excess flow totals: 4,365 AF in 2011; 4,170 AF in 2015; 3,393 in 2016; 436 AF in 2017; resulting in groundwater return of 1,300 AF back to the Platte River.

COST: \$6.6 million

Thirty Mile Irrigation District - 2012 Thirty Mile Canal was constructed in 1927 with water rights for 15,000 acres. In 2013, the canal became Thirty Mile Irrigation District, a political subdivision. An interlocal agreement created the CPNRD-TMID Stream Flow Enhancement Alliance that outlines maintenance and delivery of surface water for both irrigation and groundwater recharge. Diversions of excess flow total 35,000 AF; resulting in groundwater return of 6,000 AF back to the Platte River.

COST: \$5 million

Orchard Alfalfa Canal Orchard Alfalfa Canal's water right was approved in 1898 with water rights to irrigate 4,326 acres of land. Central Platte NRD and South Side Irrigation Company signed a management-lease agreement in 2012. Diversions of excess flow total 15,000 AF; resulting in groundwater return of 2,600 AF back to the Platte River.

COST: \$4.7 million

All Canals: Excess Platte River flows were diverted by Cozad Canal, Thirty Mile Canal and South Side Irrigation canals in 2011 and 2013 through 2019. The total diverted by the three canals was 89,590 AF and the computed recharge was 40,512 AF. In 2018, 1,487 AF were calculated to come back.

30-Year Acreage Reserve Program - 2021

Section B-Rule 8: 30-Year Acreage Reserve Program-Participation Eligibility and Rule was added to CPNRD's Groundwater Management Program Rules and Regulations titled 30-Year Acreage Reserve Program will provide a long-term solution in protecting surface water rights. Irrigation districts sign up for the conservation program and surface water users may opt-in or opt-out of the program annually.

GOAL: Ensure supplies in the Platte Basin are optimized and managed efficiently with maximum benefits and to meet water management obligations for the Basin-Wide Plan for Joint Integrated Water Resources Management of Over-Appropriated Portions of the Platte River Basin, CPNRD's IMP, and Nebraska's New Depletion Plan for the Platte River Recovery Implementation Program.

ACTION: Groundwater Exchange Program - 2016

CPNRD launched a Groundwater Exchange (GE) pilot program. Certified groundwater use on irrigated acres such as pivot corners, irregularly-shaped fields or full sections were sold and buyers purchased water to improve or add to their currently certified groundwater use or to increase streamflow. The GE was the first to allow temporary leasing of groundwater. CPNRD's Rules and Regulations regarding transfers of groundwater irrigated acres were built into the computer program. A GE 'water right' is the certified groundwater use on irrigated acres. Bids were based on consumptive use and streamflow depletion to the Platte River. Pre-approved buyers and sellers went online to place asking price to temporarily lease water or place bids to buy water for the 2016 growing season. Staff verified water rights to be sold or bought and provided buyers and sellers an ID number used for bidding. The first transactions were approved on April 1st. Sellers placed 30 locations for leasing with 6 buyers placing bids, 3 for irrigation/3 for streamflow rights. The GE matched the three irrigation bids with sellers in the eastern area of the NRD. The second year had 25 sellers and 5 buyers submitting bids. Half of the sellers received bids that matched with a buyer. Bids made for transactions along the Platte River west of Elm Creek ranged from \$8.14 to \$94.21/AF; while bids east of Elm Creek ranged from \$30.12 to \$99.88/AF. Bids within the Loup Basin influence of the District ranged from \$48.84 to \$121.07/AF.

GOAL: Allow producers to buy or sell water on a temporary leasing basis for the upcoming irrigation season.

COST: \$105,000 contract with National Economic Research Associates and NeDNR to design/manage a second Exchange that included the Loup Basin influence. NeDNR and CPNRD shared 50% of the cost.

ACTION: Airborne Electromagnetic (AEM) Survey - 2018

AquaGeo Frameworks conducted an AEM survey by helicopter to produce 3-D maps by integrating airborne geophysics to locate local features of the aquifer system. Maps are combined with water table elevation maps to provide geometry of the aquifer including locations of most saturated thickness, heterogeneity of aquifer materials, recharge zones, lithologic barriers to groundwater flow and connections to the surface water system. Data may be used to site wells, on focused-recharge areas, facility construction, and predict management scenarios for groundwater models.

GOAL: Provide improved water table and geological data to determine where additional wells may be drilled, vadose zone/recharge monitoring are needed and specify water table boundaries.

COST: \$966,000

RESPONSIBILITY: GROUNDWATER, SURFACE WATER AND WATER SUPPLY (continued)

ACTION: Central Nebraska Irrigation Project - 2018

50 producers implemented water conservation equipment including 21 that incorporated soil-moisture capacitance probes into their operation. 2020 was the last growing season budgeted for the project.

GOAL: Provide producers the opportunity to implement water conservation equipment including the Arable Mark field-level weather and crop monitoring device, pivot telemetry and flow meters.

PARTNERS: The Nature Conservancy, Nestlé-Purina and Cargill.

COST: \$144,438.20

ACTION: DATA COLLECTION

ArcGIS Solutions Platform

Staff uses ArcGIS to produce progress maps for nitrate sampling, chemigation, and static water levels.

GOAL: Collect, analyze, and manage data collected in the field.

COST: CPNRD receives license from NRCS at no cost.

Evapotranspiration Map

The evapotranspiration research uses Mapping ET with high resolution and internalized calibration (METRIC) algorithms and Earth Engine ET Flux (EEFlux). The project quantified ET by processing Landsat 7/8 images for 2015 and combined them with all processed years.

GOAL: Data usable to plan, manage and regulate groundwater resources in CPNRD.

PARTNERS: Central Platte NRD, University of Nebraska

COST: \$521,705; Extension \$64,127 for study and \$20,000 to fund a graduate student.

GeoCloud Database - 2016

Annual project collects airborne geomagnetic imagery.

GOAL: Correlate data with sub-surface geology and hydrogeology.

PARTNERS: NRDs-Central Platte, Lewis and Clark, Lower Elkhorn, Lower Platte North, Lower Platte South, Nemaha, Papio-Missouri River, Lower Loup, Upper Elkhorn, Twin Platte. Other partners: USGS, Aqua Geo Frameworks, University of Nebraska's Conservation and Survey Division.

COST: \$247,437.60 from Nebraska Natural Resources Commission; \$6,800 to continue through 2022.

Groundwater Evaluation Toolkit (GET) - 2017

Provides 'real-time' tracking of water recharged to the aquifer. The model tracks water flows on a cell-by-cell basis to provide specific monthly accounting of water returned back to the Platte River.

GOAL: Enable staff to run scenarios to track water flows back to the river and provide access to the subregional models for Thirty Mile, South Side and Cozad canals.

COST: \$98,500; Platte River Implementation Program funded half of the cost.

Light Detection and Ranging (LiDAR) - 2012

District-wide coverage of topographic elevation developed from aerial radar detection was collected November 2012-March 2013.

GOAL: Collect statewide data necessary for several projects and programs.

PARTNERS: NRDs- Lower Platte North, Twin Platte, Lower Loup, North Platte and Middle Niobrara; Other partners: NeDNR, NDEQ and NRCS.

COST: CPNRD's cost was \$40,000 for Custer County

Magnetic Resonance Sounding (MRS)

MRS is a quick, non-invasive surface geophysical technique that directly measures groundwater and is used

in place of test holes and aquifer pump tests that are sparse, time consuming and expensive.

GOAL: The three-year project improved the accuracy of groundwater models and enables water resource managers to make more informed decisions.

COST: \$393,000 NeDNR grant

Nebraska Water and Energy Flux Measurement, Modeling and Research Network (NEBFLUX) - 2007

Measures actual ET rates of various vegetation surfaces by utilizing advanced techniques to measure surface energy fluxes, microclimatic variables, plant physiological parameters, soil water content, surface characteristics and interactions for various vegetation surfaces in the District.

GOAL: Collect scientific-based research on crop water use and consumptive use for the Groundwater Management Program and other water management programs.

PARTNERS: Central Platte NRD, University of Nebraska

RESPONSIBILITY: WATER QUALITY, POLLUTION CONTROL, SOLID WASTE DISPOSAL AND SANITARY

The main source of groundwater pollution in the District is nitrate-nitrogen in amounts greater than the maximum contaminant level of 10 ppm (parts per million) allowed by the state and federal government. High nitrates are a problem in varying degrees throughout the District.

ACTION: Groundwater Quality Management Plan - 1987

When CPNRD's phased program started, Nitrate levels had increased 0.5 ppm per year to 19.24 ppm. The current average nitrate level has decreased to 12.8 ppm district-wide. The plan uses a phased approach with lesser restrictions in areas not high in nitrates and additional regulations applied to areas with higher nitrate concentrations in the groundwater. Factors including proximity to a municipal water supply and vadose zone nitrates are used in determining the Phase Areas.

ACTION: Vadose Zone Study - 2016

Revisit 27 vadose zone core sites originally collected in the 1990s. Eight of the sample results indicate lower Nitrogen fertilizer applied, reduced irrigation water, and changing land use practices at the surface may be lowering the nitrate concentrations in the vadose zone.

GOAL: Determine where additional cores may best characterize nitrate storage and estimated transport rates to the water table.

PARTNERS: University of Nebraska

COST: \$80,000

ACTION: Online Reporting Form - 2015

New system for producers to fill out their annual Groundwater Management forms online was developed. The system significantly reduces time for staff to manually enter the 5,150 forms submitted. Violation notices are sent to operators in Phases II/III areas who do not submit the required annual reports. Producers who remain in violation are turned over to legal counsel for violating cease and desist orders.

GOAL: Producers can record water/soil test results and actual yields for the required annual crop form.

COST: \$64,500 to develop online reporting form

ACTION: Central Platte Demonstration Projects - 1984

CPNRD's Nitrogen & Irrigation Management Demonstration Project is one of the longest-existing demonstration projects in Nebraska. Over 400 sites have been located on producers' cornfields where Nitrogen was applied in increments of 50 lbs. above/50 lbs. below the calculated recommendation based on the UNL algorithm. The plots provided over 290 field days and meetings.

RESPONSIBILITY: WATER QUALITY, POLLUTION CONTROL, SOLID WASTE DISPOSAL AND SANITARY

GOAL: Farmers with varying soils and conditions are recruited to use practices that impede nitrogen fertilizer from leaching into the aquifer to demonstrate that nitrates can be managed efficiently and effectively while maintaining crop yields.

PARTNERS: Central Platte NRD and University of Nebraska- Lincoln

ACTION: Crop Irrigation & Demand Network - 2013

Data is collected by telemetry on 77 sites to provide a vast amount of real-time data by monitoring different types of irrigation systems. Producers can access gallons per minute used, inches applied per day and/or throughout season and soil moisture readings. Water pumped, system pressure and rainfall are monitored at all locations, with soil moisture monitored at 30 locations.

GOAL: Allow CPNRD to view water usage and soil moisture from fields installed with telemetry equipment.

PARTNERS: Central Platte NRD, NeDNR, Nebraska Extension, Seim Ag Technology, McCrometer

COST: Initiated by CPNRD in 2013 with \$60,000 and expanded by a \$750,000 NeDNR grant.

ACTION: Cover Crops

Field days are held annually to show crop mixes planted on different dates and to compare aboveground biomass with below ground; as well as best mixes for grazing. Research includes whether compaction and infiltration are impacted, how biological activity and organic matter are affected, which mixes provide the highest quality forage for grazing, and how much crop usable nitrogen can be expected.

GOAL: Research effects of cover crops on soil health.

PARTNERS: UNL, NRCS, CPNRD, Arrow Seed, Green Cover Seed, O'Hanlon Seed Inc.

Central Platte/Lower Loup NRD Study - 2017

The Lower Loup Basin and Central Platte River Basin have diverse soil type and cropping practices that affect both water quantity and quality. The study will determine the general influence of cover crops on soil moisture, groundwater recharge and nitrogen movement in the soil between the South Loup & Wood rivers. It includes both irrigated and dryland cropped fields and spans multiple years.

GOAL: Study to determine the amount of water required to grow cover crops.

PARTNERS: Central Platte NRD, Lower Loup NRD

COST: \$320,000

ACTION: Project SENSE - 2015

UNL's Project SENSE (Sensors for Efficient Nitrogen Use and Stewardship of the Environment) pilot program promoted in-season nitrogen fertilization for corn.

GOAL: Improve efficiency of N fertilizer applications with canopy sensors.

PARTNERS: NRDs-Upper Big Blue, Lower Platte South, Lower Platte North, Lower Loup, Natural Resources Conservation Service, Nebraska Corn Board

ACTION: Testing Agriculture Performance Solutions (TAPS)

TAP teams work together to find solutions through innovation, entrepreneurialism, technology, improved techniques, and cutting-edge methodologies.

GOAL: Allow farmers to utilize new practices to determine profitability, sustainability and productivity.

PARTNERS: Central Platte NRD, University of Nebraska

COST: \$4,000

ACTION: Decommissioned Well Program

Abandoned wells that are not properly filled and sealed can act as a direct conduit for pollutants to the water supply beneath the earth's surface. State law requires abandoned wells be properly sealed by Licensed water

well contractors/licensed pump installation contractors are required to abandon the well and verify that the water well was decommissioned in accordance with state law, standards, rules and regulations.

GOAL: Landowners encouraged to locate, fill/seal wells, cisterns, cesspools, and similar cavities on property.

PARTNERS: NRDs, State of Nebraska, NRCS all provide well owners with financial and technical assistance

COST: In 2020, \$21,000 was provided in cost-share to landowners to decommission wells. Old irrigation wells (60%) up to \$500 on any well that pumps 50 gpm or less, \$750 for any well pumping over 50 gpm, and for any hand-dug well up to a \$1,500.

ACTION: Irrigation Run-Off and Erosion Plan Update - 2017

Rules and regulations designed to control groundwater irrigation runoff have been in effect since 1977 to follow the Erosion and Sediment Control Act. Updates: sheet and rill erosion added, ephemeral gully erosion, soils updates, and NRDs governing authority changed. Practices added: no-till, cover crops, terraces and waterways for control of ephemeral gully.

GOAL: Allow NRDs to petition District Court for Cease and Desist Orders and remove 90% cost-share previously required for NRDs to provide for erosion control practices.

PARTNERS: Central Platte NRD, Natural Resources Conservation Service

ACTION: Buffer Strips - 1998

Cost-share is provided through the Nebraska Buffer Strip Program to replace cropland with grass buffer strips along banks of perennial/intermittent streams or permanent bodies of water.

GOAL: Use filter strips to reduce the amount of chemicals that run off farm fields into streams in Nebraska.

PARTNERS: CPNRD administers cost-share funds provided by the Nebraska Department of Agriculture

ACTION: Chemigation Program Update - 2014

Irrigators that chemigate must comply with Nebraska's Chemigation Act and Regulations, developed by NDEE. All operators applying chemicals through a closed irrigation system must have the correct safety equipment, be properly trained and certified, and obtain a permit from the NRD before legally being allowed to chemigate. The Chemigation Act allowed the NDEE to contract with the University of Nebraska to deliver the training program. Certification is issued for four years after which renewals are required.

GOAL: Add emergency permits requirements to approve permits within two working days (can not be issued on weekends/holidays); permit holders and certified applicators are required to sign applications.

PARTNERS: Nebraska Department of Environment and Energy, Central Platte NRD

APPLICATIONS 2020	New	Renewal	Emergency	Total	INSPECTIONS Initial & Routine
Approved	151	1,858	9	2,134	743
Fees	\$9,060	\$37,160	\$4,500	\$58,940	

RESPONSIBILITY: FISH AND WILDLIFE HABITAT

ACTION: Platte River Recovery Implementation Program (PRRIP) - 2006

Developed by the federal government along with the basin states of Nebraska, Colorado, and Wyoming. The first increment included ongoing development of water projects planned to improve flows in the central Platte by an average of 130,000-150,000 AF annually. CPNRD board and staff are actively involved in the Governance Committee (GC), Land Advisory and Water Advisory committees. The Land Advisory Committee includes a member/alternate from CPNRD, member/alternate from Tri-Basin NRD and a joint member/alternate. While first-increment milestones for land and adaptive management components were exceeded, water goals were more expensive to achieve.

GOALS: Increase stream flows in the central Platte River during relevant time periods; enhance, restore, protect habitat lands for the target bird species; accommodate new water-related activities

PARTNERS: Governance Committee (GC) consists of representatives from Colorado, Wyoming, Nebraska, Bureau of Reclamation, Fish & Wildlife Service, South Platte River water users, North Platte River water users, Nebraska water users, Platte Basin NRDs, environmental groups.

COST: Estimated cost IN 2005- \$320 million in 2005 (monetary portion \$187 million). Federal government \$157 million; Colorado and Wyoming jointly \$30 million. Nebraska's entire portion is in land and water. Total cost of cash, water and land is shared equally between the federal government and the states.

ACTION: PRRIP Second Increment

In 2019, the Extension Act extended the Program until December 2032. Nebraska is in full compliance with its New Depletions Plan and is achieving Milestone 9 of the extension document.

GOALS: Acquire land interests, restore where appropriate, and maintain and manage approximately 29,000 acres of suitable habitat along the central Platte River between Lexington and Chapman.

COST: CPNRD's agreement for groundwater recharge runs through the end of 2024 and starts with a 2020 price of \$32.87/AF of water and increases 3% per year with a cap of 5,000 AF.

ACTION: Nebraska Habitat Conservation Coalition (NHCC) - 2001

Nebraska Habitat Conservation Coalition was formed in response to U.S. Fish & Wildlife Service (FWS) designation of critical habitat for the Great Plains piping plover population in Nebraska, North Dakota, South Dakota, Minnesota, and Montana. NHCC won its case in District Court in 2005, which required the FWS to redo economic analysis and critical habitat designation in Nebraska.

GOAL: Challenge critical habitat designation that gave the FWS medium to evaluate activity that could impact the Platte River or it's flow by putting groundwater pumping at a greater risk of being construed as a "take."

PARTNERS: Coalition, comprised of 23 members/8 partners, was formed in response to the federal designation of critical habitat for the piping plover in Nebraska.

ACTION: Platte Basin Habitat Enhancement Project (PBHEP) -

PBHEP funded projects: Cozad Canal and Thirty-Mile Canal Rehabilitation conjunctive management projects, dozens of conservation easements retiring irrigated acres across the Platte River Basin, Nebraska Cooperative Republican Platte Enhancement Project, North Dry Creek Augmentation Project, Re-Use Pit Recharge Demonstration Project, and Groundwater Recharge Demonstration projects. Activities concluded in 2014.

GOALS: Enhance Platte River stream flows, reduce consumptive uses of water, recharge groundwater and support wildlife.

PARTNERS: NRDs- Central Platte, North Platte, South Platte, Tri-Basin, Twin Platte, NeDNR, NGPC

COST: \$15 Million: Nebraska Environmental Trust- \$3 Million, NRDs- \$6 Million, NeDNR- \$6 Million

ACTION: Platte Valley Phragmites Control Project - 2009

The project includes 700 landowners who participate in herbicide spraying by helicopter and/or manual spraying of property along the Platte River from Kingsley Dam east to Columbus in the Platte and Central Valley Weed Management Areas (WMAs). WMA's consists of 16 counties in south central Nebraska along the Platte River, including 315 miles of river channels and 11,000 acres within main channels. PVWMA has treated approximately 26,000 acres of invasive plant species within flowing channels of the Platte River in Dawson, Buffalo, Hall, Merrick, Hamilton and Polk counties.

GOAL: Treat 26,000 acres for invasive Phragmites within CPNRD. Flow conveyance improved and wildlife habitat increased. Phragmites were reduced 86% and purple loosestrife reduced 70% through continued maintenance.

PARTNERS: NET, Platte River Recovery Implementation Program, NE Department of Agriculture; NRDs: Central Platte, Twin Platte, Tri-Basin; NPPD, Central Nebraska Public Power & Irrigation District.

COST: \$621,000 from 2009-2020. In 2020, CPNRD agreed to invest \$500,000 over three years in an endowment to fund the annual cost of maintaining water conveyance in the Platte River.

ACTION: INSTREAM FLOW RIGHTS

CPNRD holds instream flow water rights on the Platte River to protect and enhance wildlife; with the original flow water rights having a priority date of July 25, 1990. A 15-year review in 2009 by NeDNR granted instream flow rights to CPNRD until the next review in 2024 to be used beneficially for the purposes for which they were granted, are in the public interest, and should continue in effect with no modifications. The rights have no effect on levels in upstream storage reservoirs such as Lake McConaughy or take water from existing irrigators.

GOAL: CPNRD holds a series of instream flow water rights on portions of the Platte River to protect minimum flows in the river for fish and wildlife purposes.

RESPONSIBILITY: FORESTRY MANAGEMENT

Forest resources are valued for wildlife habitat, conservation, watershed protection, energy efficiency, recreation uses and scenic values.

ACTION: Conservation Tree Program - 1972

Landowners are encouraged to plant windbreaks to reduce soil erosion, improve soil health, protect cattle and homes. A 10% early ordering incentive is offered for trees, weed barrier and the planting service.

GOAL: Purchase, distribute and plant conservation seedlings from the state forest in Halsey, NE. Fabric mulch weed barrier is offered to protect seedling trees from competing with weeds for sunlight and moisture.

CPNRD has sold 3,780,468 tree seedlings and 594 miles of weed barrier.

ACTION: Tree and Weed Barrier Cost-Share Program - 1972

GOAL: Provide 50% cost-share to landowners for trees, weed barrier and tree services for orders of 200+ trees.

COST: \$10,000 is budgeted annually

ACTION: Nebraska Forest Restoration Partnership - 2021

GOAL: Utilize funds to increase cost-share provided to landowners from 50% to 75% for windbreak establishment, renovation, and weed barrier installation on orders of 200 or more trees.

PARTNERS: RCPP through NRCS, Nebraska Forest Service, Nebraska's Natural Resources Districts

ACTION: Urban Forestry Program

GOAL: Provides monetary incentive for community groups to plant and maintain more trees in parks, on school lands and on other public property.

COST: \$5,000 budgeted annually

RESPONSIBILITY: OUTDOOR RECREATION

GOALS: Incorporate park and/or recreation features into other District programs; and assist organizations, groups, and government agencies in developing facilities to meet park and/or recreation needs.

Development of Recreation Trails

ACTION: B-1 Reservoir - 1983

B-1 is the largest of seven flood control structures in Buffalo Creek Watershed. Construction included a supply canal, 1.6 miles of power line relocation, and 1/2 mile county road improvement. In addition to flood control, the project was expanded to include recreation and groundwater recharge. Recreation includes seasonal primitive fishing, kayaking and wildlife viewing.

ACTION: Kearney Area Trail System - 2005

13-mile trail system for the Kearney Area Trail System. Original completion date was 2009, construction was delayed due to a fire that burned the bridge over the Platte River. In 2014, a new bridge was built, the entire 1.7 mile trail was paved, and repairs were made to the main channel bridge.

PARTNERS: Nebraska Department of Roads, Kearney Recreation Department, NGPC, CPNRD

COST: \$60,000 in 2007 for Phase 4 \$50,000 in 2008 for Phase 5 CPNRD Total: \$110,000

ACTION: Wood River Flood Control Project Trail

A hike and bike trail was established on the Wood River Flood Control Project's levee system, providing an additional two miles to Grand Island's trail system. The western portion of the trail is completed with future plans to extend the length of the entire project.

PARTNERS: City of Grand Island, CPNRD

ACTION: Central City/Marquette Trail - 2016

The Nebraska Trails Foundation took ownership of the trail and repaired a bridge south of Central City to open the trail. CPNRD provided funding to the Platte PEER Group to complete the final mile of the trail.

COST: \$5,000

ACTION: Johnson Lake Trail - 2018

Funded was provided to seed/reseed 10,000 square feet for a new trail at Johnson Lake. The area starts at the gazebo and extends south to Pelican Bay Drive.

COST: \$600

ACTION: Crane Meadows Stabilization - 2001

Provided funding to Crane Meadows Nature Center for bank stabilization erosion control for 200 feet of bank stabilization; 10,000 square feet of wetland restoration and reseeded; and erosion control of an island.

COST: \$2,600

ACTION: Archway Stabilization - 2002

Provided funding to Great Platte River Road Archway Monument received for a streambank stabilization project west of the Archway in Kearney. The North Channel of the Platte River and Turkey Creek eroded to within 5' of a local sandpit. The Corps of Engineers surveyed the erosion and provided an Emergency 404 permit to CPNRD.

COST: \$13,500, City of Kearney provided 25% of the cost.

ACTION: Crane Viewing Sites - 1994

CPNRD initiated a task force of various governmental and private agency representatives to develop ideas in response to concern about safety for local residents, farmers and crane watchers in the Central Platte valley. The Task Force developed a comprehensive plan known as the Central Platte Historic, Scenic and Trails Project. Approval was granted by the Nebraska Department of Roads under the federal Intermodal Surface Transportation Efficiency Act (ISTEA) for Phase I of the comprehensive plan developed by the task force.

Alda Crane Viewing Site

Located two miles south of 1-80 Exit 305 with three additional roadside turnouts south and east of the Alda interchange on Platte River Drive. Audubon created a new viewing pull-out just south of the south channel on the west side of 43rd Road near Gibbon, NE. The site was designated as a “green site” by the Groundwater Foundation in 2010. An intern is currently working on a design to rehabilitate the site.

COST: CPNRD \$2,500

Richard Plautz Crane Viewing Site

Located 1.5 miles south of 1-80 Exit 285 near Gibbon. The site consists of two elevated wooden viewing decks, 1,650’ trail and parking lot. In 2020, the NRD received two grants to assist with rehabilitation of the Plautz Crane Viewing Site in Buffalo County (Gibbon) at the intersection of Elm Island and Lowell roads.

COST: \$315,000 with Central Platte NRD’s share totaling \$16,000

GRANTS RECEIVED:

Recreational Trails Program (RTP) \$259,500.00 from the RTP administered by the Nebraska Game and Parks Commission, CPNRD is required to contribute a 20% matching share. CPNRD will remove the nearly 1,660 LF deteriorated asphalt nature trail and replace it with an 8’ wide, 6” thick concrete trail and pave the 1,033 square yard gravel parking lot with 8” thick concrete.

Nebraska Environmental Trust \$50,000 from NET to be used exclusively for repairs on the streambank near the viewing decks. The NRD will remove two large trees, install 2,700 LF of erosion control silt fencing, install 803 ton of quartzite riprap on the southeast side of Lowell Road bridge and 0.6 acres of seeding and mulching once the new nature trail has been reconstructed.

ACTION: Urban Conservation Program - 2017

Central Platte NRD has two cost-share programs to assist cities, villages, and counties with a wide range of conservation recreational opportunities.

GOAL: Assist sponsors to establish, develop and improve public recreational areas and trails, lake dredging, and with the acquisition of land or land rights for recreational purposes.

COST: Cost-share rate is 50% of eligible project costs up to a maximum of \$40,000 for each Program

RESPONSIBILITY: RANGE MANAGEMENT

Rangeland concerns in CPNRD include the influx of Eastern Red Cedar trees and the encroachment of weeds that diminish the natural water supply for desirable vegetation in the western and central parts of the District. Planned grazing, prescribed burns, and pasture rotation are encouraged through cost-share funding.

ACTION: Planned Grazing

GOAL: Eliminate overgrazing on damaged land to restore vegetation over time. Components such as pipeline, tanks, wells and cross-fence are used to complete a planned grazing system to distribute grazing more evenly over the pasture. Dugouts are funded to provide storage for runoff water that can provide a supplemental source of water and livestock windbreaks can provide protection from winter weather and protect calves.

FUNDING: CPNRD, Nebraska Soil and Water Conservation Program through NRCS

ACTION: Prescribed Fire Program - 2004

GOAL: CPNRD conducts and assists with prescribed burns in conjunction with federal, state and local agencies to remove unwanted trees and shrubs for increased economic output and wildlife habitat.

COST: Landowners are reimbursed for 50% of actual costs incurred while implementing a prescribed fire by a contractor and up to a maximum of \$2,500/cooperator/lifetime. If the CPNRD burn crew does the burn, cost-share is not used because of the lower cost. Landowner cost is \$10 per acre for the first 40 acres, \$5 per acre for anything over 40 acres.

ACTION: Grazing Deferment Program – 2013

GOAL: Provide cost-share as an incentive for landowners to defer grazing in a pasture for one growing season, so a prescribed burn can be successfully applied in the following year to reduce invasive Eastern Red Cedar.

COST: \$15 per acre to \$30 per acre with a maximum of \$30,000 per landowner

Grant Accomplishment Overview:

- * 3-year Burn Goal: 12,000 acres Burn Total 20,661 acres plus 2,555 acres burned by CPNRD.
- * Total firebreak prepared: 257,978 lineal feet
- * Total Mechanical Cedar reduction: 3,690.6 acres
- * Estimated 300,000 cedar trees removed from the landscape.
- * Project helped fund the building of 6 new sprayers, a water trailer, and a UTV with 40 gallon fire unit
- * New sprayers adds 2,390 gallons of water capacity to the fireline

ACTION: Training Program

GOAL: CPNRD has conducted over 40 training events training over 600 students including landowners, NRDs, agencies, firefighters and fire marshals to prevent accidents while enhancing grasslands for economic return and habitat. Other successes: managed \$1.5 million grant projects, assisted with formation of Landowner Prescribed Burn Associations and Fire Learning Network to train firefighters world-wide, and created inroads in Nebraska for liability insurance coverage for prescribed burning. CPNRD's fire crew, along with Central Platte Rangeland Alliance, have conducted 258 burns totaling 40,629 acres.

ACTION: Native Prairie Outreach Project - 2008

GOAL: Coordinate the Native Prairie Outreach Project at Husker Harvest days to distribute native prairie seed packets and education materials to approximately 1,500 people annually. Approximately 800 packets of seed totaling 11 acres worth of hand-harvested forbs and tall grass species.

PARTNERS: Nebraska's NRDs provide contributions to purchase high diversity seed mix from the Prairie Plains Resource Institute.

4. Central Platte NRD's future projects and studies.

ACTION: Conjunctive Water Management Study

Platte River Conjunctive Water Management Study is an ongoing project studying surface and groundwater management options for the Dawson County canals, with the goal of ensuring supplies in the Platte Basin are optimized and managed efficiently with maximum benefits in a manner consistent with State and local policies. Studies and analysis are conducted with COHYST modeling tool components: rainfall, pumping, surface water applied, total ET, recharge, runoff, acreage.

GOAL: Optimize availability of water to groundwater and surface water users within the NRD and the area within which NPPD delivers natural flow and storage water for surface water irrigation systems.

PARTNERS: NeDNR, CPNRD, Nebraska Public Power District

COST: CPNRD provides technical assistance in evaluation of conjunctive management in central Platte Valley.

ACTION: Conjunctive Management Offer - 2011

A joint Middle Platte Basin Water Resources subcommittee developed a surface water model and conducted a public opinion survey conducted from Lake McConaughy to Chapman to understand the public's attitude and perceptions about water usage in Nebraska. The NRD boards voted unanimously to offer financial assistance to convert Central Nebraska Public Power & Irrigation District's (CNPPID) surface water irrigation project to a groundwater irrigation project and recharge program. The proposal would allow landowners to rely totally on groundwater and use surface water for recharge. CNPPID's board took the proposal under advisement. The pre-feasibility study/additional modeling showed: project would provide beneficial flows for water management, how groundwater recharge protects water supplies and water quality by increasing hydroelectric power generation on NPPD/CNPPID systems in central Nebraska, and CNPPID would see recreational benefits for Lake McConaughy and other lakes in the system.

GOAL: Provide water to all water users.

PARTNERS: Central Platte NRD, Twin Platte NRD

COST: \$90,400

ACTION: Purchase for Groundwater Recharge- 2018

CPNRD purchased 157.4 acres of groundwater irrigated land in Dawson County a 1/2 mile south of the Platte River with intention to retire the pivot and gain 107 AF. Management options are being evaluated to provide recharge to the Platte River including potential retirement of irrigated acres, transfer water from South Side Irrigation District canal and directly discharge flows into the river from an adjacent property.

GOAL: Provides options for Platte River credits by providing recharge through retirement of irrigated acres, transferring water from the South Side Irrigation District canal, and directly discharging flows into the river from an adjacent property; to help the NRD meet requirements of CPNRD's Integrated Management Plan, the Basin-Wide Integrated Management Plan and Nebraska's New Depletions Plan.

COST: Purchase price \$915,000; Engineering cost \$109,620

ACTION: Drought Mitigation - 2018

CPNRD received a Water Sustainability Fund grant from Nebraska Natural Resources Commission to develop a Drought Management Plan to identify District vulnerabilities, create methodology for monitoring drought conditions, and identify processes to respond to and manage the impacts of future drought events. A Drought Tournament was held in July 2019 for drought mitigation planning. CPNRD is currently working on the Extreme Event Reporter (GIS-based tools).

GOAL: Assist CPNRD in water resources management and lead to a more sustainable and stable water supply for all users across the district.

PARTNERS: NeDNR, CPNRD

COST: \$100,000

ACTION: Precision Conservation Management Program (PCM)

A Precision Conservation Specialist will be hired to evaluate conservation practices on producers' impact to the environment and to family-farmer profitability to make positive water quality and climate impacts. PCM was created through the NRCS Regional Conservation Partnership Program (RCPP).

PARTNERS: CPNRD, Illinois Corn Growers Association Note: PCM several contributing partners including NASA Harvest, National Fish & Wildlife Foundation, Ecosystem Services Market Consortium, Soil Health Partnership, Field to Market® and The Nature Conservancy

GOAL: Help farmers understand and manage risks associated with adopting new conservation practices to make sound financial decisions.

COST: \$400,000 to be reimbursed by partners

5. Central Platte NRD's annual budgets and tax requests.

ANNUAL BUDGET	TAX REQUEST
2018-2019: \$17,537,800.79	\$4,527,757.60
2019-2020: \$20,896,780.63	\$4,204,344.77
2020-2021: \$24,751,660.96	\$4,057,019.34

CURRENT SOURCES OF REVENUE

State Funds

Nebraska Resources Development Fund
Nebraska Water Quality Fund - Nebraska Department of Agriculture
Water Sustainability Fund - Nebraska Natural Resources Commission
Nebraska Buffer Strip Program - Nebraska Department of Agriculture
Well Decommissioning Fund - Nebraska Department of Natural Resources

Local, Private, Non-Governmental Organizations

Property Taxes - Dawson County and parts of Frontier, Custer, Buffalo, Howard, Hall, Nance, Merrick, Hamilton, Platte, Polk counties

CoSponsor Reimbursements - Cities and counties within CPNRD	Dawson County Land Lease
Grand Island Area Economic Development	Pheasants Forever
The Nature Conservancy	Certificate of Deposit (CD) Interest
Lower Loup NRD Salary Reimbursements	Water Transfers
Tree/Weed Barrier Sales, Well Permits, Chemigation Permits	Canal Reimbursements

Federal Funds

Watershed and Flood Prevention Operations Program - Natural Resources Conservation Service	
U.S. Fish and Wildlife Service	U.S. Bureau of Reclamation
Rain Water Basin Joint Venture - Salary Reimbursements	U.S. Geological Survey

POTENTIAL SOURCES OF FUNDING

Nebraska Environmental Trust Grant(s)

CURRENT INFRASTRUCTURE OPERATING & MAINTENANCE

- A) B-1 Reservoir System - \$120,000
- B) Wood River Flood Risk Reduction Project - \$40,000
- C) Kearney Northeast Flood Control Project - \$5,000
- D) Merrick County Drainage Project - \$45,000
- E) Platte/Polk County Tributaries - \$82,000
- F) Prairie Silver Moores Flood Risk Reduction Project - \$106,000

CURRENT INFRASTRUCTURE REHABILITATION NEEDS

Flood Control Dam Repairs

Jones Creek, Box Elder, Clear Creek - \$500,000 budgeted for rehabilitation
15 additional flood control structures need rehabilitation at approximately - \$150,000 each = \$2,250,000

PRIORITY OF NEW CONSTRUCTION OR REHABILITATION NEEDS

Flood Control – Watershed and Flood Prevention Operations (WFPO)

1. **Platte Valley Industrial Park** – alleviate drainage issues at Platte Valley Industrial Park between South Locust Street and Hwy 281 in Grand Island.
Construction - \$600,000
2. **Lower Wood River WFPO** – protects Gibbon, Shelton, Wood River, Alda, Grand Island, Agricultural Land
U.S. Department of Agriculture grant would pay construction costs.
Land Rights - \$15,000,000
3. **Elm and Turkey Creek WFPO** – protects Odessa, Kearney, Agricultural Land
7 dams (80 acres each) Land Rights - \$1,680,000
Diversion (3 miles in length, ¼ mile wide) Land Rights - \$7,680,000
U.S. Department of Agriculture grant would pay construction costs.
4. **Spring and Buffalo Creek WFPO** - protects Cozad, Lexington, Overton, Agricultural Land, Irrigation Canals
U.S. Department of Agriculture grant would pay construction costs.
Land Rights/Clearing - \$500,000

6. Central Platte NRD's current agreements.

Parties to Agreement	Agreement Period	Description
UNL (NE State Climate Office)	July 2016 - Present	Weather Stations
UNL Cooperative Extension (Krull)	1988-Present	Irrigation Nitrogen Management, water quality improvement through better irrigation practices
US Geological Survey	1991-Present	Platte River at Kearney Stream Gaging (1991), Platte River & Tribs Stream Flow Gages (1998) & Operation of Water Level Recorders & Rainfall Recorders (1988)
Twin Platte & Tri-Basin NRD's, CNPP&ID, NPPD	April 1998- Present	Coop.Hydrology Study, Platte River & Basin (COHYST), Develop scientifically supportable hydrologic data basis & analysis.
US Fish & Wildlife Service	July 2003 - Present	Platte River / Rainwater Basin Photography, collection of aerial photography for GIS.
CNPP&ID, NPPD, South Platte NRD, Twin Platte NRD and Western Irrigation Canal	November 2007 - Present	South Platte River Compact Coalition - relates to studies, water rights & permitting regarding the South Platte River Compact.
NRDS: Lower Republican, South Platte, Tri-Basin, Twin Platte, Upper Niobrara White, Upper Republican	January 2015- Present	NE Appropriated Basin Platform for joint resources studies.
City of Kearney and Buffalo County	December 1997- Present	Kearney Northeast Project - Flood Control Project Maintenance
Grand Island, Central City, Hall & Merrick Counties	1984-Present	Warm Slough/Trouble Creek - Flood Control Project maintenance
City of Grand Island, Hall County & US Army Corp of Engineers	February 1997- Present	Lower Wood River/Upper Warm Slough Project - Flood Control Project Maintenance
USGS, San Francisco University	July 2009-Present	Unsaturated Zone Recharge Study
City of Grand Island, Hall and Merrick Counties	1995-Present	Prairie/Silver/Moores Creek Flood Control Project - Flood control land rights, design & Construction
NRDs: TBNRD, LLNRD, LENRD, UBBNRD, TPNRD, NPNRD, ULNRD, UENRD, LPNRD, SPNRD, LCNRD, Papiro NRD, LPPD, NPPD, CNPP&ID, Twin Loups Reclamation District, DPPD, MLPP&ID, NLRPP&ID, Farwell & Sargent Irrigation District, City of Lexington, City of Grand Island	December 2001- Present	NE Habitat Conservation Coalition - Representation of interest to parties affected by designation of piping plover critical habitat.

6. Central Platte NRD's current agreements.

Parties to Agreement	Agreement Period	Description
SPNRD, TPNRD, NPNRD, Tri-Basin NRD, NDNR	2012-Present	Platte Basin Water Project Coalition - Coordinate & implement reductions to water depletions in the Upper Central Platte River Basin, particularly as relates to the NE GW Management & Protection Act, Integrated Management Plans, and the Platte River Recovery Implementation Program. Includes Facilitation of Second Increment Study, Robust Review & Conservation Phase 3 study. Upper Platte Basin Drought Contingency Plan.
City of Grand Island, Hall and Merrick Counties	December 1984-Present	Moore's Creek Watershed Project.
Nebraska Dept of Natural Resources	December 2017-Present	Drought Management Plan - Develop a drought management plan & local drought monitor project.
USDA, NRCS	July 2000-Present	Environmental Quality Incentive Program (EQIP) - Install additional conservation treatment practices.
USDA, NRCS	1997-Present	Geographic Information Systems (GIS) - Implement resources mgmt. systems to address water quality concerns.
USDA, NRCS	August 2003-Present	Technical Service Providers (TSP) - expand ability to hire technical assistance.
USDA, NRCS	August 2005-Present	Contribution Agreement - Section 714 - Deliver conservation technical assistance.
UNL Biological Systems Engineering	January 2007-Present	Integrated Water Management - ET Study - Measurement of evapo-transpiration & soil moisture in the hydrologic water budget & phragmites evapo-transpiration (Suat Irmak)
UNL Extension Service	July 2006-Present	Development of Fertilizer Algorithm - To update nitrogen needs for different crops.
UBBNRD, TPNRD, UENRD, LBNRD, LBBNRD, UNWNRD, LNNRD, & LCNRD	September 2002 - Present	To provide the authority, resources, services, studies & facilities needed for the representation of the interests of the NRD's.
NE Public Power District	March 1998-Present	B-1 Structure, Recharge - Groundwater recharge

6. Central Platte NRD's current agreements.

Parties to Agreement	Agreement Period	Description
Merrick County	1996-Present	Merrick County Drainage Problems
Thirty Mile Irrigation District	February 2014-Present	Central Platte - Thirty Mile Stream Flow Enhancement Alliance - Platte River stream flow enhancement.
NDNR, NPNRD, SPNRD, Tri-Basin NRD, TPNRD & NE Community Foundation	September 2012-Present	Financial Management Agreement relating to NE New Depletion Plan Section of Platte River Recovery Implementation Program - Administrative and Financial management support for activities in NE New Depletion Plan Section of PRRIP.
NDNR, Tri-Basin NRD & TPNRD	September 2012-Present	J2 Regulating Reservoir Program - Relating to PRRIP, water services related to J2 Regulating Reservoir Project.
Southside Irrigation District	February 2015-Present	Central Platte NRD/Southside Irrigation District Lease & Management Agreement - Platte River Stream Flow Enhancement.
City of Grand Island	January 2014-Present	Grand Island Moores Creek Flood Study by JEO Consulting Group - Moores Creek Flood Plain Study and Master Plan.
University of NE/Lincoln	May 2016-Present	Vadose Zone Study - Evaluate previously collected vadose zone core profiles, determine where additional cores may provide best information to characterize nitrate storage and estimated transport rates. (Dan Snow)
LCNRD, LENRD, LPNNRD, LPSNRD, Nemaha NRD, Papio NRD, LLNRD, UENRD & TPNRD	March 2017 - Present	NE GeoCloud Program - Establish single uniform framework for implementing the NE Geo Cloud Program.
US Geological Survey	January 2017-Present	Groundwater Management Plan/Hydrogeologic Model Update - Update the Groundwater Management Plan model.
University of NE/Lincoln & Southern Illinois University	May 2018-Present	Groundwater Recharge & Nitrate Transport Dynamics - GW recharge & Nitrate transport dynamics in unsaturated zone.
Hall County	September 1999-Present	Ordnance Plant Drains - Correct Ordnance Plant Drainage Problems.
RWBIV, NE Community Foundation & NRCS	October 2018-Present	Accelerated Delivery of Easement Programs
LLNRD	June 2019-Present	Cover Crop Study

6. Central Platte NRD’s current agreements.

Parties to Agreement	Agreement Period	Description
LLNRD, Loup River Public Power District	September 2019- Present	Joint Defense & Common Interest Agreement
Upper Big Blue NRD	July 2019-Present	Shared Personnel Services.
NE Community Foundation as acting agent of PRRIP	September 2019- Present	Water Service Agreement - Recharge from excess flows (Six Mile, Cozad, Thirty Mile & Orchard Alfalfa).
NET, NE Game & Parks	February 2020- Present	Richard Plautz Crane Viewing Site Restoration Project.
NeDNR	<i>January 2019- Present</i>	<i>Conceptual Design of Dams for Multi Beneficial Use.</i>
NRCS	April 2020- Present	Watershed & Flood Prevention - Lower Wood River Watershed.
NRCS	April 2020- Present	Watershed & Flood Prevention - Spring & Buffalo Creek Watershed.
NRCS	September 2020 – Present	Watershed & Flood Prevention – Turkey Creek Watershed
NE Community Foundation	September 2020 – Present	Platte Valley Weed Mgmt. Area – Controlling Phragmites on the Platte River.
The Nature Conservancy, NRCS, & UBBNRD	September 2020 – Present	Soil Health – Installing conservation practices within the CPNRD & UBBNRD
NE Emergency Management Agency (NEMA)	October 2020 – Present	Hazard Mitigation Plan
NRCS	December 2020 – Present	Unfunded Cooperative Agreement. Sharing of Resources between NRCS and the NRD.
Buffalo County	April 2021 – Present	Use of County Road Easement between CPNRD & Buffalo County.
Illinois Corn Growers Association	May 2021 – Present	Adding a Precision Conservation Specialist to NRD staff to help farmers understand and manage risks while making sound financial decisions.
City of Grand Island, Grand Island Area Economic Development Corporation	February 2021 – Present	Designing a drainage ditch south of Wood River Project.
Felsburg Holt Ullevig	Ongoing	Wetland Mitigation Monitoring on the Prairie/Silver/Moores Project

7. Central Platte NRD's additional information.

Links to the following Management Plans are available on CPNRD's website at <https://www.cpnrd.org/about/management-plans/>

Upper Platte Basin-Wide Plan

CPNRD Integrated Management Plan (IMP)

Groundwater Quantity Management - Rules & Regulations

Groundwater Quality Management - Rules & Regulations

Long Range Implementation Plan

Master Plan

Name: Lyndon Vogt

Position: General Manager

Contact: Office: (308) 385-6282 | Cell: (308) 430-2677 | Email: vogt@cpnrd.org

Date: June 21, 2021