

# NEBRASKA NATURAL RESOURCES COMMISSION

Water Sustainability Fund

Application for Funding

## Section A.

### ADMINISTRATIVE

PROJECT NAME: **CPNRD Streamflow Enhancement Program**

#### PRIMARY CONTACT INFORMATION

Entity Name: **Central Platte Natural Resources District**

Contact Name: **Lyndon Vogt, General Manager**

Address: **215 Kaufman Avenue, Grand Island, NE 68803**

Phone: **308-385-6282**

Email: **vogt@cpnrd.org**

Partners / Co-sponsors, if any: **N/A**

1. Dollar amounts requested: (**Grant**, Loan, or Combination)

Grant amount requested. \$ **\$600,000**

Loan amount requested. \$ **0**

If Loan, how many years repayment period? **N/A**

If Loan, supply a complete year-by-year repayment schedule.  
**N/A**

2. Permits Needed - Attach copy for each obtained (N/A = not applicable)

Nebraska Game & Parks Commission  
(G&P) consultation on Threatened and  
Endangered Species and their Habitat

**N/A**

Obtained: YES

NO

Surface Water Right

**N/A**

Obtained: YES

NO

USACE (e.g., 404 Permit)	<b>N/A</b> <input checked="" type="checkbox"/>	Obtained: YES <input type="checkbox"/>	NO <input type="checkbox"/>
Cultural Resources Evaluation	<b>N/A</b> <input checked="" type="checkbox"/>	Obtained: YES <input type="checkbox"/>	NO <input type="checkbox"/>
Other (provide explanation below) Click here to enter text.	<b>N/A</b> <input checked="" type="checkbox"/>	Obtained: YES <input type="checkbox"/>	NO <input type="checkbox"/>

3. Are you applying for funding for a combined sewer over-flow project?

YES **NO**

If yes, do you have a Long Term Control Plan that is currently approved by the Nebraska Department of Environmental Quality?

YES **NO**

If yes attach a copy to your application. **N/A**

If yes what is the population served by your project? **N/A**

If yes provide a demonstration of need. **N/A**

If yes and you were approved for funding in the most recent funding cycle, then resubmit the above information updated annually but you need not complete the remainder of the application.

4. If you are or are representing an NRD, do you have an Integrated Management Plan in place, or have you initiated one?

N/A **YES** NO

5. Has this application previously been submitted for funding assistance from the Water Sustainability Fund and not been funded?

YES **NO**

If yes, have any changes been made to the application in comparison to the previously submitted application? **N/A**

If yes, describe the changes that have been made since the last application. **N/A**

No, I certify the application is a true and exact copy of the previously submitted and scored application. (Signature required) **N/A**

6. Complete the following if your project has or will commence prior to next July 1<sup>st</sup>.

As of the date of submittal of this application, what is the Total Net Local Share of Expenses incurred for which you are asking cost share assistance from this fund? \$ **N/A**

Attach all substantiating documentation such as invoices, cancelled checks etc. along with an itemized statement for these expenses. **N/A**

Estimate the Total Net Local Share of Expenses and a description of each you will incur between the date of submittal of this application and next July 1<sup>st</sup> for which you are asking cost share assistance from this fund.

- 1. No cost will be incurred prior to July 31, 2016 (application deadline)**
- 2. No cost will be incurred between August 1, 2016 (the post-filing date) and December 15, 2016 (estimated approval date)**
- 3. Itemized list of estimated costs which will be incurred between August 1, 2016 (the post-filing date) and July 1, 2017. Two landowners with a total of 288 acres and an estimated 114.29 ac/ft of accretion back to the Platte River have been in discussions with the CPNRD for the potential retirement of groundwater in the Districts' overappropriated area. The estimated Total Net Local Share of Expenses would be \$365,728.00**
- 4. The balance of the direct project cost are \$634,272.00.**

## Section B.

### DNR DIRECTOR'S FINDINGS

Does your project include physical construction (defined as moving dirt, directing water, physically constructing something, or installing equipment)?

YES  NO

- 1(a). If yes (structural), submit a feasibility report ([to comply with Title 261, CH 2](#)) including engineering and technical data and the following information:

A discussion of the plan of development ([004.01 A](#));  
Click here to enter text.

A description of all field investigations made to substantiate the feasibility report ([004.01 B](#)); Click here to enter text.

Maps, drawings, charts, tables, etc., used as a basis for the feasibility report ([004.01 C](#)); Click here to enter text.

A description of any necessary water and land rights and pertinent water supply and water quality information, if appropriate ([004.01 D](#));  
Click here to enter text.

A discussion of each component of the final plan including, when applicable ([004.01 E](#));

Required geologic investigation ([004.01 E 1](#)); Click here to enter text.

Required hydrologic data ([004.01 E 2](#)); Click here to enter text.

Design criteria for final design including, but not limited to, soil mechanics, hydraulic, hydrologic, structural, embankments and foundation criteria ([004.01 E 3](#)). Click here to enter text.

- 1(b). If no (non-structural), submit data necessary to establish technical feasibility including, but not limited to the following ([004.02](#)):

A discussion of the plan of development ([004.02 A](#));

***To build on the existing and proven measures that the CPNRD has taken in retiring groundwater rights in its overappropriated area from willing sellers, and not only continue that effort, but expand that focus to its groundwater management areas that have issues with groundwater declines. In doing so the CPNRD would potentially not have to implement rules and regulations that address these***

**groundwater management areas related to declines and help insure that water is available for Agricultural use, Municipal and Industrial use, Recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska.**

A description of field or research investigations utilized to substantiate the project conception (004.02 B);

**To date, the CPNRD has permanently retired 1,743 acres of groundwater with 30 different transactions and has returned an estimated 653 ac/ft of flow back to Platte River in its overappropriated area. An additional 2,372 acres and 1,800 ac/ft of flow has been returned to the Platte River, in the overappropriated area of CPNRD, through surface water retirements. These accretions of acre feet of returned water to the Platte River are determined using the COHYST model developed by CPNRD and its partners. (See Attachment 1. Locations of Retirements) In groundwater management areas that are seeing potential issues with declines the CPNRD has already taken a step above and beyond what our groundwater management plan calls for in relation to declines and have limited the transfers that can happen within those areas, and placed into our Rules and Regulations that supplemental wells will not be allowed.**

A description of the necessary water and/or land rights, if applicable (004.02 C);

**The CPNRD would acquire perpetual conservation easements on the acres being retired which would forbid any future irrigation on the acres and in cases of sub-irrigated ground, deep rooted vegetation restrictions would be implemented as well. All high capacity wells would have to be decommissioned or converted to stock wells or the equivalent. (See Attachment 2. Sample Conservation Easement)**

A discussion of the anticipated effects, if any, of the project upon the development and/or operation of existing or envisioned structural measures including a brief description of any such measure (004.02 D).

**The overall goals of the program are to increase streamflow to the Platte River within the CPNRD, help return the overappropriated area of the District to a fully appropriated status, to maintain a fully appropriated status in the remainder of the District, and to help insure that water is available for Agricultural use, Municipal and Industrial use, Recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska.**

2. Provide evidence that there are no known means of accomplishing the same purpose or purposes more economically, by describing the next best alternative.

***In 1987, the board established the Groundwater Management Plan with a phased program to implement controls when needed. The maximum acceptable decline ranges from 10' in the eastern end of the District to 30' in portions of the western end of the district. If the water table falls to 50% of that maximum decline (5 and 15 feet respectively for each of the range parameters), Phase II would go into effect for any area or areas affected, triggering mandatory reductions in irrigated acres and establishing spacing limits for new irrigation wells. Further declines to 70%, 90% & 100% of the maximum acceptable decline will trigger Phase III, IV and V controls respectively, mandating additional cutbacks in irrigated acreage and increased spacing limits for new wells. Complete details of the controls are available in district publications. Because of the differences in the aquifer depth and conditions, it is conceivable that some areas could be in the higher phases while other areas may always be in Phase I.***

3. Document all sources and report all costs and benefit data using current data, (commodity prices, recreation benefit prices, and wildlife prices as prescribed by the Director) using both dollar values and other units of measurement when appropriate (environmental, social, cultural, data improvement, etc.). The period of analysis for economic feasibility studies shall be fifty (50) years or with prior approval of the Director, up to one hundred (100) years [T261 CH 2 (005)].

- Describe any relevant cost information including, but not limited to the engineering and inspection costs, capital construction costs, annual operation and maintenance costs, and replacement costs. Cost information shall also include the estimated construction period as well as the estimated project life (005.01).

***The total estimated costs for this program are \$1,000,000 over the next two fiscal years. The CPNRD currently pays producers \$8,000 per ac/ft for gains back to the Platte River in its overappropriated area. The CPNRD pays all costs associated with a transaction of this nature which include but are not limited to; title lien holder fees, survey, legal fees, etc. The CPNRD also has infared aerial imagery flown every year and maintains a GIS database in part for inspection purposes.***

- Only primary tangible benefits may be counted in providing the monetary benefit information and shall be displayed by year for the

project life. In a multi-purpose project, estimate benefits for each purpose, by year, for the life of the project. Describe any intangible or secondary benefits separately. In a case where there is no generally accepted method for calculation of primary tangible benefits describe how the project will increase water sustainability, such that the economic feasibility of the project can be approved by the Director and the Commission (005.02).

***There are no direct tangible benefits from the program, however the benefit can be perceived to the District as a whole and to the Platte River of Nebraska by increasing flows to the Platte River and keeping additional irrigated ground in production, thus helping the tax base. The alternative would be a reduction in irrigated acres to an entire management area.***

- All benefit and cost data shall be presented in a table form to indicate the annual cash flow for the life of the proposal, not to exceed 100 years (005.03).

***No direct tangible benefit versus cost has been provided for this program.***

- In the case of projects for which there is no generally accepted method for calculation of primary tangible benefits and if the project will increase water sustainability, the economic feasibility of such proposal shall be demonstrated by such method as the Director and the Commission deem appropriate (005.04). [Click here to enter text.](#)

4. Provide evidence that sufficient funds are available to complete the proposal.

***The Central Platte NRD is the local jurisdiction supporting the project. The FY 2015 /2016 Tax Levy for CPNRD is 0.03842, the property tax valuation is \$15,919,152,725.00, and the property tax collected is \$6,115,709.64.***

5. Provide evidence that sufficient annual revenue is available to repay the reimbursable costs and to cover OM&R (operate, maintain, and replace).

***N/A***

6. If a loan is involved, provide sufficient documentation to prove that the loan can be repaid during the repayment life of the proposal.

***N/A***

7. Describe how the plan of development minimizes impacts on the natural environment.

***Because the District's project is non-structural, the environment will not be impacted at all by a structural footprint or construction activities. The District's standard retirement agreement contract language, as shown in attached Attachment 2, includes requirements that landowners continue to manage their lands to prevent erosion and excess sediment loss. The District requires that landowners continue to engage in sound resource and land management practices, even though groundwater irrigation has ceased, so that all applicable statutes and rules are followed, and so that no secondary negative impact arises from the groundwater retirement.***

8. Explain how you are qualified, responsible and legally capable of carrying out the project for which you are seeking funds.

***The CPNRD has statutory responsibility for groundwater quantity management and for integrated management of the over appropriated area. The District is the only entity in the area with specific water-management goals to reach, and the District has dedicated funds this fiscal year toward the retirement of groundwater irrigation for the purpose of meeting those goals. The District possesses both the technical, financial, and legal capability to identify successful management strategies and implement them for the benefit of the District's citizens as a whole.***

9. Explain how your project considers plans and programs of the state and resources development plans of the political subdivisions of the state.

***The reduction of groundwater consumptive use and the offsetting of streamflow depletions to the Platte River form core components of both the Platte River Basin-wide Integrated Management Plan and the joint District Integrated Management Plan, both developed in cooperation with the NDNR. The basin-wide plan specifically includes objectives intended to keep Nebraska in compliance with the Platte River Recovery Implementation Program, and the District's individual integrated management plan provides the mechanisms for meeting those objectives. The District's groundwater retirement program specifically implements the goals of the basin-wide plan and the Nebraska New Depletions Plan, both of which are state-level concerns.***

10. Are land rights necessary to complete your project?

YES  NO



If yes, provide a complete listing of all lands involved in the project.

**N/A**

If yes, attach proof of ownership for each easements, rights-of-way and fee title currently held.

**N/A**

If yes, provide assurance that you can hold or can acquire title to all lands not currently held.

**N/A**

11. Identify how you possess all necessary authority to undertake or participate in the project.

***The CPNRD has statutory responsibility for groundwater quantity management and for integrated management of the overappropriated area. The District possesses taxing authority to generate funding for this and all other District expenditures.***

12. Identify the probable environmental and ecological consequences that may result as the result of the project.

***Streamflow in the Platte River will increase through the proposed groundwater retirement, which will provide additional flows downstream for endangered species habitat. In the case of landowners who convert their irrigated acres to wildlife habitat, additional ecological benefits will arise from the conversion to a use other than irrigated cropland.***

## Section C.

### NRC SCORING

In the NRC's scoring process, points will be given to each project in ranking the projects, with the total number of points determining the final project ranking list.

The following 15 criteria constitute the items for which points will be assigned. Point assignments will be 0, 2, 4, or 6 for items 1 through 8; and 0, 1, 2, or 3 for items 9 through 15. Two additional points will be awarded to projects which address issues determined by the NRC to be the result of a federal mandate.

#### **Notes:**

- The responses to one criterion *will not* be considered in the scoring of other criteria. Repeat references as needed to support documentation in each criterion as appropriate. The 15 categories are specified by statute and will be used to create scoring matrixes which will ultimately determine which projects receive funding.
- There is a total of 69 possible points, plus two bonus points. The potential number of points awarded for each criteria are noted in parenthesis. Once points are assigned, they will be added to determine a final score. The scores will determine ranking.
- The Commission recommends providing the requested information and the requests are not intended to limit the information an applicant may provide. An applicant should include additional information that is believed will assist the Commission in understanding a proposal so that it can be awarded the points to which it is entitled.

Complete any of the following (15) criteria which apply to your project. Your response will be reviewed and scored by the NRC. Place an N/A (not applicable) in any that do not apply, an N/A will automatically be placed in any response fields left blank.

1. Remediates or mitigates threats to drinking water;
  - Describe the specific threats to drinking water the project will address.
  - Identify whose drinking water, how many people are affected, how will project remediate or mitigate.
  - Provide a history of issues and tried solutions.
  - Provide detail regarding long range impacts if issues are not resolved.

***Within the CPNRD, groundwater supplies drinking water for its 112,000 residents, which can be vulnerable to over pumping and over use, especially in the Districts overappropriated areas. Water quality is also a***

**concern within the CPRND, primarily intensively farmed areas with shallow depth to water and sandy soils. These conditions, which are typical in the Platte River Valley, mean that most of the groundwater in the CPNRD is vulnerable to contamination. The CPNRD has a Groundwater Quality Management Program that went into effect in 1983 and has nationwide recognition. The Groundwater Quality Management Program is having a beneficial impact on the nitrate levels in groundwater. Producers have been instrumental in the success of the program by implementing best management practices and newer, more efficient technologies as they are developed. The program, which has been in effect for more than 28 years, is undertaking a long-term solution for the District's widespread high groundwater nitrate-nitrogen problems. Nitrate-nitrogen levels have been lowered through management efforts primarily by landowners. Current average nitrate levels throughout the District in 2014 are 14.24 parts per million (ppm); down from 19.24 ppm when the Program was implemented. Until the Central Platte NRD's Groundwater Quality Management Program was adopted, the nitrate level in the high Nitrate area of the District had increased at a rate of about 0.5 ppm/year to 19.24 ppm. At the end of the first crop year under the program, the level dropped by 0.3 ppm and continued to drop through the 1993 crop year. Adverse weather conditions resulted in increases during the 1994 and 1995 crop years, but, a lowering of the nitrate rate occurred again after the 1996 and 1997 crop years. In 1999, nitrate levels in the NRD's high-nitrate area dropped from 17.41 ppm from spring 1998 to 16.62 ppm spring 1999. The drop is credited to landowners in the District using better management practices recommended by the NRD and the University of Nebraska- Lincoln. Farmers from throughout the District, with varying soils and cropping practices, were recruited to work with the NRD in using the best management practices to demonstrate that nitrates can be managed efficiently and effectively while maintaining crop yields. In addition, many of the tools needed by the farmers to establish best management practices, including fertilizer calibration meters, irrigation well hour meters, surge valves, vertical dam manifolds, irrigation flow meters and reuse pits, were encouraged through the availability of cost sharing by the District. Research indicated that most farmers did not know how much water they were using during irrigation, so the Board decided to make mandatory the practice of monitoring well outputs in Phases II and III. A well measuring program was adopted, and later revised, that could determine how much water is being used. Wells in Phase III were measured by the NRD by 1998 and in Phase II by 2000. Having the ability to retire acres that are within the CPNRD groundwater management phase areas 2 and 3, the District can effectively stop the application of certain chemicals that are used to raise an irrigated crop. Through the retirement of irrigated lands, this project helps secure clean and sustainable water.**

2. Meets the goals and objectives of an approved integrated management plan or ground water management plan;
  - Identify the specific plan that is being referenced including date, who issued it and whether it is an IMP or GW management plan.
  - Provide the history of work completed to achieve the goals of this plan.
  - List which goals and objectives of the management plan the project provides benefits for and how the project provides those benefits.

***CPNRDs Integrated Management Plan (effective 09/15/2009), which was also adopted by the Nebraska Department of Natural Resources, first goal is to incrementally achieve and sustain a fully appropriated condition. (ties into Goal 1. of the Basin-Wide Plan) (a) Within the first ten (10) year increment, address impacts of streamflow depletions to surface water appropriations and water wells constructed in aquifers dependent upon recharge from streamflow to the extent those depletions are due to water use initiated after July 1, 1997. (ties into Goal 1. objectives of the Basin-Wide Plan) (b) Impacts of streamflow depletions to surface water appropriations and water wells constructed in aquifers dependent upon recharge from streamflow to the extent those depletions are due to water use initiated prior to July 1, 1997, may be addressed prior to a subsequent increment with the intent of achieving a fully appropriated condition. To date, the CPNRD has permanently retired 1,743 acres of groundwater with 30 different transactions and has returned an estimated 653 ac/ft of flow back to Platte River in its overappropriated area. An additional 2,372 acres and 1,800 ac/ft of flow has been returned to the Platte River, in the overappropriated area of CPNRD, through surface water retirements. These accretions of acre feet of returned water to the Platte River are determined using the COHYST model developed by CPNRD and its partners. Objective 1 of the Districts IMP is to implement measures within the first ten (10) year increment to offset an annual depletion rate of one thousand nine hundred (1,900) acre-feet to the river in the year 2043. This rate is the current best estimate and is subject to change based upon new data and information.***

3. Contributes to water sustainability goals by increasing aquifer recharge, reducing aquifer depletion, or increasing streamflow;

List the following information that is applicable:

- The location, area and amount of recharge;
- The location, area and amount that aquifer depletion will be reduced;
- The reach, amount and timing of increased streamflow. Describe how the project will meet these objectives and what the source of the water is;
- Provide a detailed listing of cross basin benefits, if any.

***The proposed programs goals are to increase streamflow to the Platte River within the CPNRD, help return the overappropriated area of the District to a fully appropriated status, to maintain a fully appropriated status in the remainder of the District by reducing depletions in target areas, and to help insure that water is available for Agricultural use, Municipal and Industrial use, Recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska. The CPNRD would acquire perpetual conservation easements on the acres being retired which would forbid any future groundwater irrigation on the acres and in cases of sub-irrigated ground, deep rooted vegetation restrictions would be implemented as well. All high capacity wells would have to be decommissioned or converted to stock wells or the equivalent. The primary cross basin benefits of this program would be reducing depletions in target areas within the CPNRD that are also recognized in adjacent NRD's and by increasing streamflow to the Platte River for the benefit of not only CPNRD but also the State of Nebraska. (See Attachment 3. Fully & Overappropriated Designations)***

4. Contributes to multiple water supply goals, including, but not limited to, flood control, agricultural use, municipal and industrial uses, recreational benefits, wildlife habitat, conservation of water resources, and preservation of water resources;
  - List the goals the project provides benefits.
  - Describe how the project will provide these benefits
  - Provide a long range forecast of the expected benefits this project could have versus continuing on current path.

***The goals of the program are to work towards future incremental offsets in the overappropriated are of the District in achieving a fully appropriated status, increase streamflow to the Platte River within the CPNRD and reduce depletions in target areas to help insure that water is available for Agricultural use, Municipal and Industrial use, recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska. To achieve these goals, we will retire groundwater rights and put perpetual conservation easements on lands from willing sellers. The program will provide necessary offsets for future goals that will be identified in the Districts future IMP and it will ensure that we maintain a fully appropriated status in the portion of the District that is not overappropriated.***

5. Maximizes the beneficial use of Nebraska's water resources for the benefit of the state's residents;
  - Describe how the project will maximize the increased beneficial use of Nebraska's water resources.
  - Describe the beneficial uses that will be reduced, if any.

- Describe how the project provides a beneficial impact to the state's residents.

***The program will help Nebraska reach its goals of streamflow in the Platte River under the Nebraska New Depletions Plan. Current beneficial uses that will be reduced are an individuals' Correlative Rights to that beneficial use of water on the lands that are retired. The program will help insure that water is available for Agricultural use, Municipal and Industrial use, Recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska.***

6. Is cost-effective;

- List the estimated construction costs, O/M costs, land and water acquisition costs, alternative options, value of benefits gained.
- Compare these costs to other methods of achieving the same benefits.
- List the costs of the project.
- Describe how it is a cost effective project or alternative.

***Currently, the CPNRD pays willing sellers \$8,000 an acre foot for accretions to the Platte River, for retiring groundwater rights and securing a perpetual conservation easement on the property. The Districts alternative options to this program would be to implement controls when needed, which would result in increased taxes in perpetuity to enforce and result in groundwater irrigated ground being taken out of production. The maximum acceptable decline ranges from 10' in the eastern end of the District to 30' in portions of the western end of the district. If the water table falls to 50% of that maximum decline (5 and 15 feet respectively for each of the range parameters), Phase II would go into effect for any area or areas affected, triggering mandatory reductions in irrigated acres and establishing spacing limits for new irrigation wells. Further declines to 70%, 90% & 100% of the maximum acceptable decline will trigger Phase III, IV and V controls respectively, mandating additional cutbacks in irrigated acreage and increased spacing limits for new wells. Another option the CPNRD currently utilizes is the retiming of flows to the Platte River via the Thirty Mile Irrigation District, South Side Irrigation District, and the Cozad Canal. This method helps achieve the same benefits to streamflow in the Platte River, but can only be utilized when there is excess flow coming down the Platte River. The value gained by voluntarily retiring groundwater irrigated acres, as opposed to mandating reductions to irrigated acres is superiorly cost effective to the CPNRD, other entities with taxing authority and the Districts producers, as mandated reductions would be widespread and affect a far greater population causing a decreased revenue for taxing entities and hardship for producers in the affected areas.***

7. Helps the state meet its obligations under interstate compacts, decrees, or other state contracts or agreements or federal law;

- Identify the interstate compact, decree, state contract or agreement or federal law.
- Describe how the project will help the state meet its obligations under compacts, decrees, state contracts or agreements or federal law.
- Describe current deficiencies and document how the project will reduce deficiencies.

***The proposed project directly helps CPNRD and Nebraska meet the Platte River Recovery & Implementation Program obligations for groundwater depletions, improve flows for endangered and threatened species, and assist the NRDs with regulation and management of groundwater. PRRIP is required to improve flows in the Platte River for endangered and threatened species, and this program will help with their goals as well as the Districts.***

8. Reduces threats to property damage or protects critical infrastructure that consists of the physical assets, systems, and networks vital to the state or the United States such that their incapacitation would have a debilitating effect on public security or public health and safety;

- Identify the property that the project is intended to reduce threats to.
- Describe and quantify reductions in threats to critical infrastructure provided by the project and how the infrastructure is vital to Nebraska or the United States.
- Identify the potential value of cost savings resulting from completion of the project.
- Describe the benefits for public security, public health and safety.

***Water security and public health and safety for Nebraskans is directly tied to clean and sustainable groundwater resources. About 85% of the state's population uses groundwater as drinking water. Groundwater is also a major source of irrigation water for much of the state's agriculture. However, decades of crop production has allowed fertilizers and some agricultural chemicals to reach the groundwater in some parts of the state, causing contamination that may have harmful health implications for local residents. The program will benefit public security, health, and safety by securing clean & sustainable groundwater resources through voluntary retirements and improve flows to the Platte River. The knowledge learned through these retirements can be used by the CPNRD and other NRDs to improve land management best practices and strategies within their groundwater management plans to better protect vulnerable groundwater resources.***

9. Improves water quality;

- Describe what quality issue(s) is/are to be improved.
- Describe and quantify how the project improves water quality, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- Describe other possible solutions to remedy this issue.
- Describe the history of the water quality issue including previous attempts to remedy the problem and the results obtained.

***Within the CPNRD, groundwater supplies drinking water for its 112,000 residents, which can be vulnerable to over pumping and over use, especially in the Districts overappropriated areas. Water quality is also a concern within the CPRND, primarily intensively farmed areas with shallow depth to water and sandy soils. These conditions, which are typical in the Platte River Valley, mean that most of the groundwater in the CPNRD is vulnerable to contamination. Having the ability to retire acres that are within the CPNRD groundwater management phase areas 2 and 3, the District can effectively stop the application of certain chemicals that are used to raise an irrigated crop. The water quality benefits realized from this program would cover the entire CPNRD area of 2.1 million acres and its 112,000 residents. The CPNRD has a Groundwater Quality Management Program that has had a beneficial impact on the nitrate levels in groundwater. Producers have been instrumental in the success of the program by implementing best management practices and newer, more efficient technologies as they are developed. The program, which has been in effect for more than 28 years, is undertaking a long-term solution for the District's widespread high groundwater nitrate-nitrogen problems. Nitrate-nitrogen levels have been lowered through management efforts primarily by landowners. Current average nitrate levels throughout the District in 2014 are 14.24 parts per million (ppm); down from 19.24 ppm when the Program was implemented. Until the Central Platte NRD's Groundwater Quality Management Program was adopted, the nitrate level in the high Nitrate area of the District had increased at a rate of about 0.5 ppm/year to 19.24 ppm. At the end of the first crop year under the program, the level dropped by 0.3 ppm and continued to drop through the 1993 crop year. Adverse weather conditions resulted in increases during the 1994 and 1995 crop years, but, a lowering of the nitrate rate occurred again after the 1996 and 1997 crop years. In 1999, nitrate levels in the NRD's high-nitrate area dropped from 17.41 ppm from spring 1998 to 16.62 ppm spring 1999. The drop is credited to landowners in the District using better management practices recommended by the NRD and the University of Nebraska-Lincoln. Farmers from throughout the District, with varying soils and cropping practices, were recruited to work with the NRD in using the best management practices to demonstrate that nitrates can be managed efficiently and effectively while maintaining crop yields.***



10. Has utilized all available funding resources of the local jurisdiction to support the program, project, or activity;

- Identify the local jurisdiction that supports the project.
- List current property tax levy, valuations, or other sources of revenue for the sponsoring entity.
- List other funding sources for the project.

***The Central Platte NRD is the local jurisdiction supporting the project. The FY 2015 /2016 Tax Levy for CPNRD is 0.03842, the property tax valuation is \$15,919,152,725.00, and the property tax collected is \$6,115,709.64.***

11. Has a local jurisdiction with plans in place that support sustainable water use;

- List the local jurisdiction and identify specific plans being referenced that are in place to support sustainable water use.
- Provide the history of work completed to achieve the goals of these plans.
- List which goals and objectives this project will provide benefits for and how this project supports or contributes to those plans.
- Describe and quantify how the project supports sustainable water use, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- List all stakeholders involved in project.
- Identify who benefits from this project.

***The local jurisdiction on the program is the Central Platte NRD. The results of the project are better recharge estimates, which will improve the CPNRD's groundwater management plan. Therefore, this project directly benefits all the producers, irrigators, ethanol producers, cities, industry, municipal and domestic groundwater users within the CPNRD. The program could also result in increased flows downstream of the CPNRD, which could potentially assist a larger populated areas with water shortage issues during drought conditions.***

12. Addresses a statewide problem or issue;

- List the issues or problems addressed by the project and why they should be considered statewide.
- Describe how the project will address each issue and/or problem.
- Describe the total number of people and/or total number of acres that would receive benefits.
- Identify the benefit, to the state, this project would provide.

***The issues the proposed program will address include maintaining water supplies for municipal, domestic, agricultural and industrial uses. The proposed program will also help ensure that the state as a whole will***

***continue to comply with the Nebraska New Depletions Plan and the streamflow goals of the Platte River Recovery Implementation Plan through the voluntary retirement of groundwater irrigated acres. As a result, the benefits realized from this project would not only cover the entire CPNRD area of 2.1 million acres and its 112,000 residents, but also the water supplies of the cities of Lincoln and Omaha who rely on stream flows in the Platte River.***

13. Contributes to the state's ability to leverage state dollars with local or federal government partners or other partners to maximize the use of its resources;

- List other funding sources or other partners, and the amount each will contribute, in a funding matrix.
- Describe how each source of funding is made available if the project is funded.
- Provide a copy or evidence of each commitment, for each separate source, of match dollars and funding partners.
- Describe how you will proceed if other funding sources do not come through.

***The CPNRD is the sole contributor of the matching funds and has budgeted to move forward if the program is funded.***

14. Contributes to watershed health and function;

- Describe how the project will contribute to watershed health and function in detail and list all of the watersheds affected.

***Increased streamflow in the Platte River and its tributaries will contribute to an overall increase health of the watershed.***

15. Uses objectives described in the annual report and plan of work for the state water planning and review process issued by the department.

- Identify the date of the Annual Report utilized.
- List any and all objectives of the Annual Report intended to be met by the project
- Explain how the project meets each objective.

***N/A***

16. Federal Mandate Bonus. If you believe that your project is designed to meet the requirements of a federal mandate which furthers the goals of the WSF, then:

- Describe the federal mandate.
- Provide documentary evidence of the federal mandate.
- Describe how the project meets the requirements of the federal mandate.

- Describe the relationship between the federal mandate and how the project furthers the goals of water sustainability.

**N/A**

## Section D.

### PROJECT DESCRIPTION

#### 1. Overview

In 1,000 characters or less, provide a brief description of your project including the nature and purpose of the project and objectives of the project.

***This grant application requests a total of \$600,000 in matching funds from the Water Sustainability Fund to retire 125 acre feet of groundwater irrigation in the overappropriated area as well as targeted groundwater management areas within the Central Platte Natural Resources District. The District seeks with this funding request to continue and expand on the achievements of retiring groundwater irrigated acres so that mandatory reductions will not have to be implemented. The overall goals of the program are to increase streamflow to the Platte River within the CPNRD, help return the overappropriated area of the District to a fully appropriated status, to maintain a fully appropriated status in the remainder of the District, and to help insure that water is available for Agricultural use, Municipal and Industrial use, Recreational use, and flow for endangered and threatened species use in the Platte River of Nebraska.***

#### 2. Project Tasks and Timeline

Identify what activities will be conducted by the project. For multiyear projects please list what activities are to be completed each year.

***FY 2016-2017: execute agreements with landowners; report to NDNR on finalized agreements; payments to landowners under executed agreements FY 2017-2018: execute agreements with landowners; report to NDNR on finalized agreements; payments to landowners under executed agreements; compliance field inspections by District staff through perpetuity***

#### 3. Partnerships

Identify the roles and responsibilities of agencies and groups involved in the proposed project regardless of whether each is an additional funding source. List any other sources of funding that have been approached for project support and that have officially turned you down. Attach the rejection letter.

***N/A***

#### 4. Other Sources of Funding

Identify the costs of the entire project, what costs each other source of funding will be applied to, and whether each of these other sources of funding is confirmed. If not, please identify those entities and list the date when confirmation is expected. Explain how you will implement the project if these sources are not obtained.

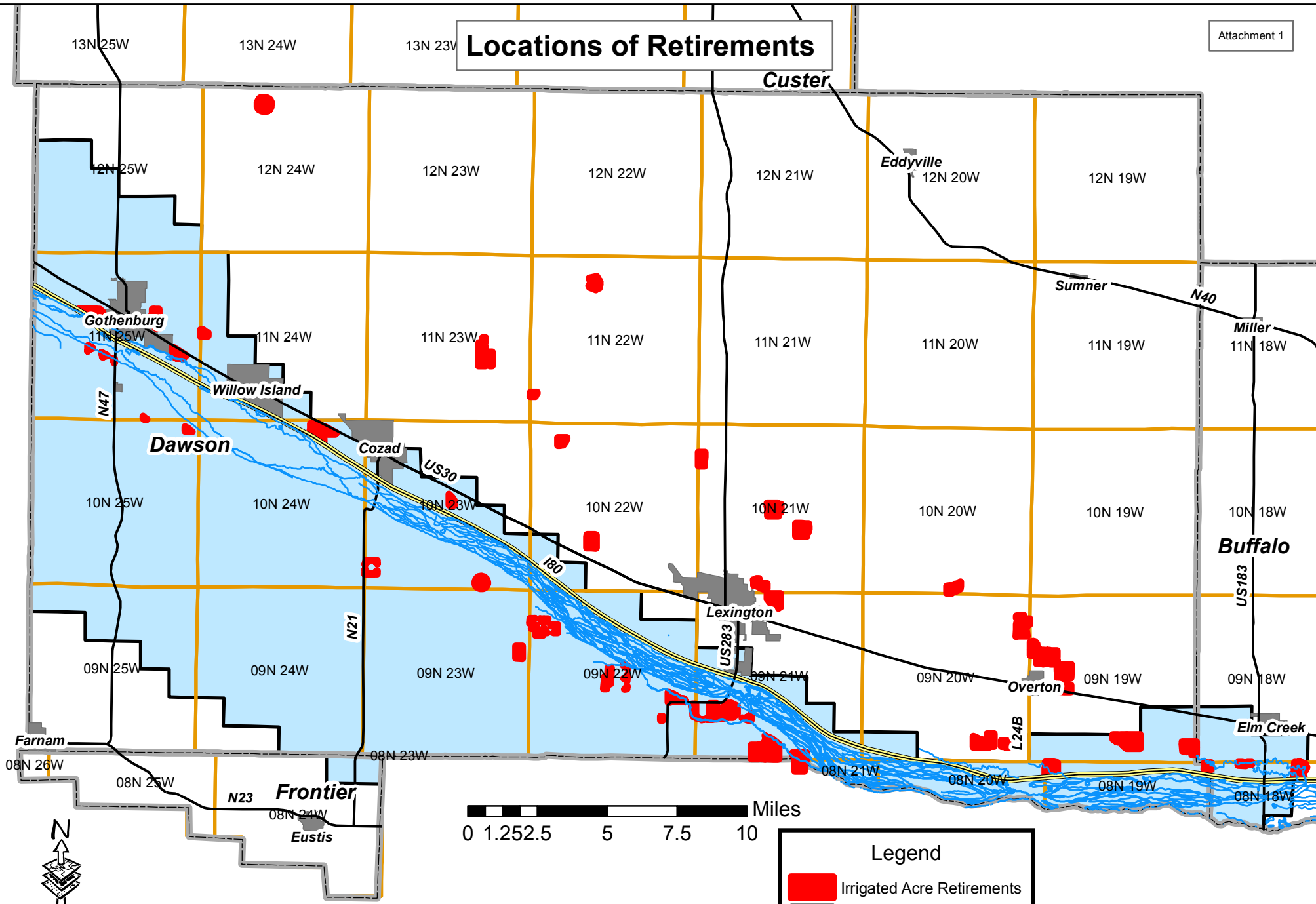
***The total cost of this phase of the Waterbanking/Irrigation Retirement Program (125 acre feet) is \$1,000,000 over the next two years. Costs, if successfully funded through the Water Sustainability Fund, will be \$600,000 from WSF and \$400,000 from the CPNRD.***

5. Support/Opposition

Discuss both support and opposition to the project, including the group or interest each represents.

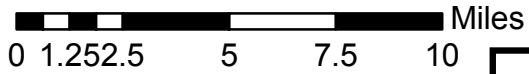
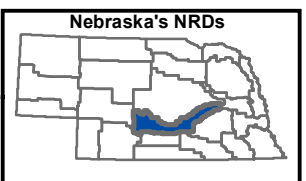
***The CPNRD sees no opposition to increasing streamflow and getting back to a fully appropriated status.***

# Locations of Retirements



**Legend**

- Irrigated Acre Retirements
- Groundwater OA Area
- Counties
- Cities/Villages
- Township/Range



DEED OF CONSERVATION EASEMENT

This Deed of Conservation Easement ("Conservation Easement") made this \_\_\_\_\_ day of \_\_\_\_\_, 2008, by and between \_\_\_\_\_ ("Grantor") and \_\_\_\_\_ ("Grantee").

WHEREAS, all requirements imposed pursuant to the Nebraska Conservation and Preservation Easements Act, NEB. REV. STAT. §§76-2,111 through 76-2,118 (Reissue 2003) have been complied with in that the local planning commission, if applicable, and the appropriate governing body have approved of this Deed of Conservation Easement as evidenced by the attached Resolution, marked as Exhibit "A" and incorporated herein by this reference.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and in receipt of payments to the Grantor by the Grantee, the Grantor and Grantee agree as follows:

1. The Grantor hereby assigns, transfers and grants to the Grantee a Conservation Easement enforceable with respect to the property (the Property) of the Grantor described as follows:

(insert legal description here)

2. The terms, conditions and restrictions of the Conservation Easement are as follows:

a. As used in this Conservation Easement, the term "water well" shall mean any water well as that is defined in Nebraska statutes.

b. No water well capable of pumping more than 50 gallons per minute may exist or be constructed on the Property. Any water well that exists on the Property on the date of this Conservation Easement and that is capable of pumping more than 50 gallons per minute shall be decommissioned in accordance with all applicable statutes, rules and regulations or permanently reduced in capacity so that it is incapable of pumping more than 50 gallons per minute. Except that any irrigation well existing on the Property on the date of this Conservation Easement that was previously used to irrigate other land in addition to the Property may continue to be used to irrigate the other land. Only land previously certified by the Natural Resources District for irrigation by that well may be irrigated. No additional land may ever be irrigated with the well. The pipes, pivot, and any and all other equipment formerly used to irrigate the Property must be permanently removed, detached, or otherwise disabled to the satisfaction of the Natural Resources District (District).

c. Water wells capable of pumping 50 gallons per minute or less individually but in excess of 50 gallons per minute collectively may not be clustered or joined nor may the water from such wells be commingled or in any other way combined unless the wells are used as described in Paragraph 2(b) above.

d. Water wells capable of pumping 50 gallons per minute or less may be used to provide water on the Property for (1) household and other domestic uses, or (2) watering range livestock.

e. No use of the water from a natural stream, regardless of whether or not a permit for such use is required from the Nebraska Department of Natural Resources or any successor agency, shall be made on the Property except for providing water for range livestock on the Property.

f. No water from any water well not located on the Property shall be used on the Property except for (1) household and other domestic uses, or (2) watering range livestock.

g. The Property must remain in dryland agricultural production unless prior written approval is granted by the District to alter this prohibition. No crops, hay, grass or other plants that could be sub-irrigated shall be grown on Property. Only those items listed on Attachment "B" may be grown on the property unless prior written approval is granted by the District.

h. No use shall be made of the Property which will consume groundwater, including, but not limited to, the following:

- (1) No pits or other excavated areas that would expose or consume ground water shall be allowed;
- (2) No mining, sand or gravel operations shall be allowed;
- (3) No industrial, commercial, agricultural or residential development shall occur on the Property unless prior written approval is granted by the District.

3. This Conservation Easement shall be perpetual. It is appurtenant and runs with the land as an incorporeal interest in the Property and shall be enforceable against any owner or other person having any interest in the above described property including the Grantor, all persons or entities holding any interest acquired through the Grantor and all Grantor's heirs, successors, assigns and personal representatives.

4. It is the Grantor's intent, through this Deed of Conservation Easement, to permanently transfer and surrender any rights that they or their successors, heirs, assigns or personal representatives may have to irrigate or sub-irrigate the above-described property and to permanently prevent the development and use of any ground water for any uses on the Property or off except those specifically permitted by Paragraph 2 above. The fact that the well or wells on the Property have been decommissioned, reduced in pumping capacity to 50 gallons per minute or less, or are no longer used to irrigate the Property cannot be used to supply an offset to allow irrigation of any other land or any other water use or to justify construction of a new water well as a replacement.

5. Upon any breach of the terms of this Conservation Easement by the Grantor, the Grantee may, after reasonable notice to the Grantor, institute suits to enjoin any breach or enforce any covenant by ex parte, temporary, and/or permanent injunction either prohibitive or mandatory. The Grantee's remedies shall be cumulative and shall be in addition to any other rights and remedies available to the Grantee at law or equity. If the Grantor is found to have breached any of the terms of this Conservation Easement, the Grantor shall reimburse the Grantee for any costs or expenses incurred by the Grantee, including court costs and reasonable attorney's fees to the extent permitted by applicable law. No failure on the part of the Grantee to enforce any term of this Conservation Easement shall discharge or invalidate such term or any other term hereof or affect the right of the Grantee to enforce the same in the event of a subsequent breach or default.

6. The Grantee, acting by and through their respective employees and agents, have the right to enter the Property at reasonable times for the purpose of inspecting the Property to determine whether the Grantor is complying with the terms of this Conservation Easement.

Grantor(s)

\_\_\_\_\_  
 \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
 ) ss:  
 COUNTY OF \_\_\_\_\_ )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_ known to me personally or produced satisfactory evidence of identification to me.

\_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_



STATE OF \_\_\_\_\_ )  
 ) ss:  
COUNTY OF \_\_\_\_\_ )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_ known to me personally or produced satisfactory evidence of identification to me.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
 ) ss:  
COUNTY OF \_\_\_\_\_ )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_ known to me personally or produced satisfactory evidence of identification to me.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

STATE OF NEBRASKA )  
 ) ss:  
COUNTY OF HALL )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_ known to me personally or produced satisfactory evidence of identification to me.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Accepted for the Grantee

By: \_\_\_\_\_

STATE OF NEBRASKA )  
  ) ss:  
COUNTY OF HALL        )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_ known to me personally or produced satisfactory evidence of identification to me.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

**SUBORDINATION AGREEMENT**

For valuable consideration, including the execution of the above Deed of Conservation Easement, the undersigned, being the owner and holder of an indebtedness secured by a lien upon the real estate described in the Deed of Conservation Easement which Deed of Trust is dated the \_\_\_\_\_ day of \_\_\_\_\_, 2008, and recorded in the office of the Register of Deeds or County Clerk of \_\_\_\_\_ County, Nebraska at \_\_\_\_\_ hereby joins in the conveyance of the Conservation Easement to \_\_\_\_\_ and its successors and assigns, and conveys to \_\_\_\_\_ the same rights as contained in the Deed of Conservation Easement. Such conveyance is made for the sole purpose that the rights of the Conservation Easement shall be prior to and paramount to all rights held by the assigned under such Deed of Trust and that any sale or foreclosure of the Deed of Trust shall be subject to such Conservation Easement.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2008.

By: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
  ) ss:  
COUNTY OF \_\_\_\_\_ )

The foregoing Deed of Conservation Easement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2008 by \_\_\_\_\_, President of \_\_\_\_\_.

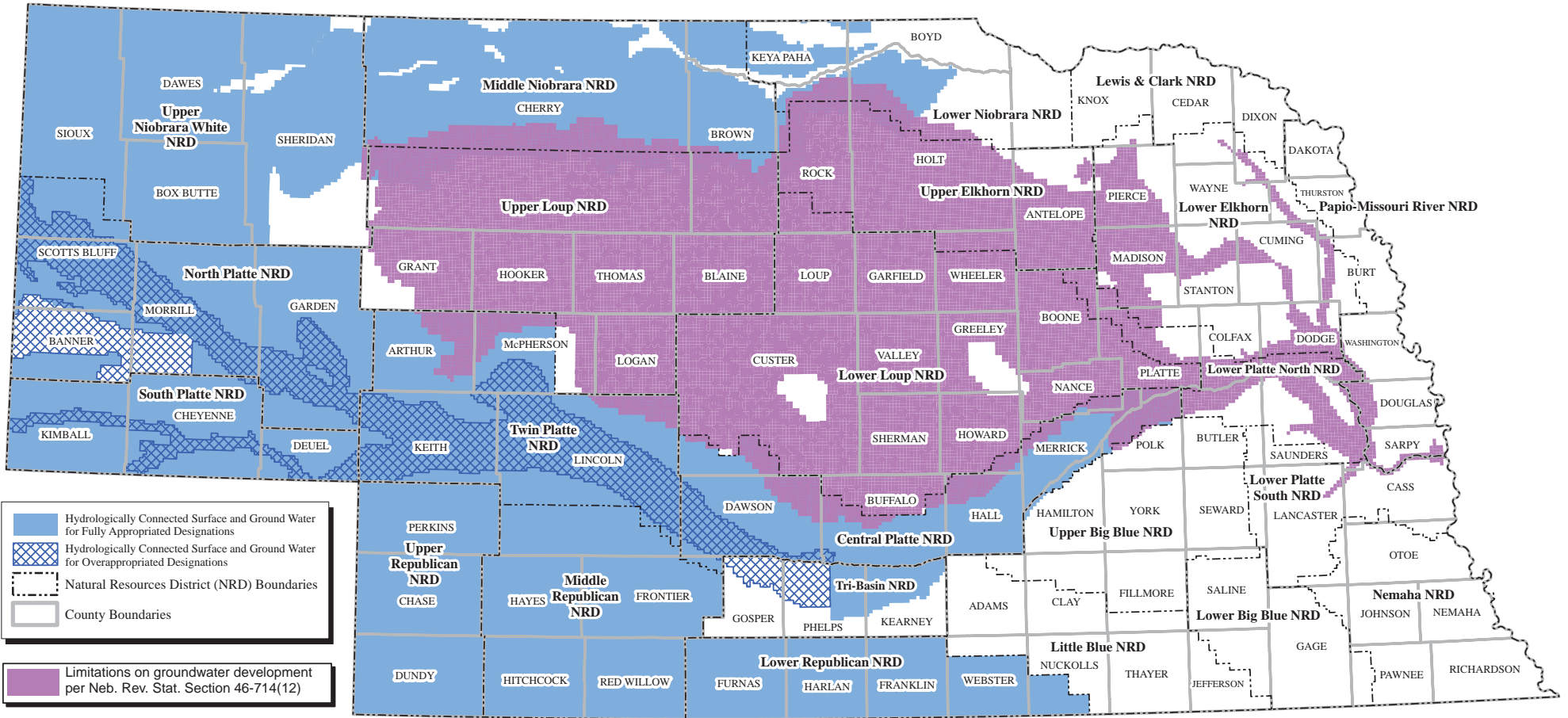
\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_



# Geographic Areas Determined to Have Surface Water Hydrologically Connected to Ground Water for the Purpose of Fully Appropriated or Overappropriated Designations

Determinations made by the Department of Natural Resources as of April 08, 2009



- Hydrologically Connected Surface and Ground Water for Fully Appropriated Designations
- Hydrologically Connected Surface and Ground Water for Overappropriated Designations
- Natural Resources District (NRD) Boundaries
- County Boundaries

Limitations on groundwater development per Neb. Rev. Stat. Section 46-714(12)



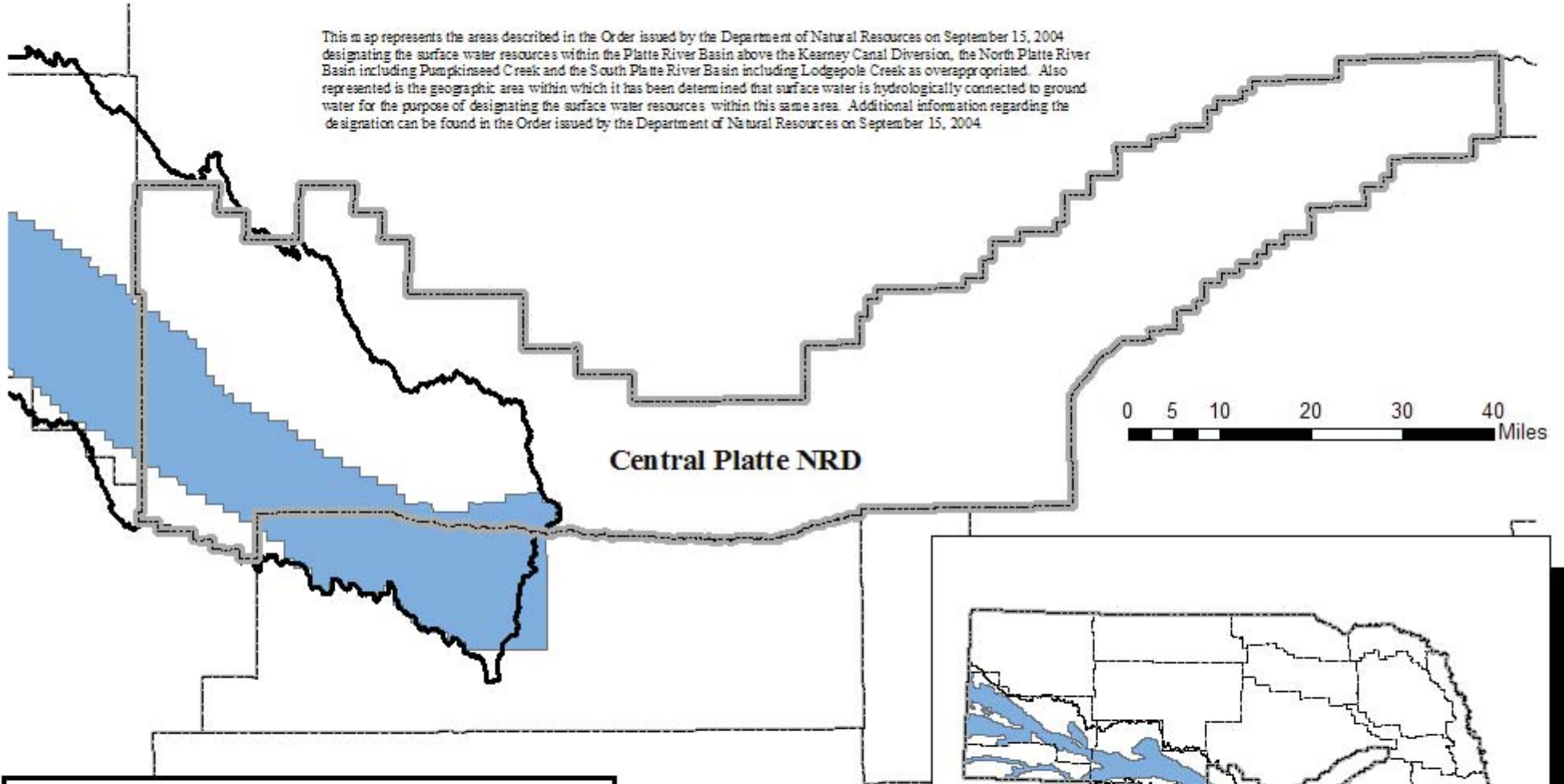


Planning Section





# Map 2: Geographic Areas of the Central Platte NRD Designated by the Department of Natural Resources as Overappropriated.



This map represents the areas described in the Order issued by the Department of Natural Resources on September 15, 2004 designating the surface water resources within the Platte River Basin above the Kearney Canal Diversion, the North Platte River Basin including Pumpkinseed Creek and the South Platte River Basin including Lodgepole Creek as overappropriated. Also represented is the geographic area within which it has been determined that surface water is hydrologically connected to ground water for the purpose of designating the surface water resources within this same area. Additional information regarding the designation can be found in the Order issued by the Department of Natural Resources on September 15, 2004.



**Explanation**

-  Overappropriated Integrated Management Subarea (OAIMS)
-  Overappropriated Surface Water Area
-  Central Platte NRD
-  NRDs

