



DEPARTMENT OF NATURAL RESOURCES
Ann Bleed

Acting Director

August 11, 2006

IN REPLY TO:

Alice Johns
Area Manager
Bureau of Reclamation
Great Plains Region
Nebraska-Kansas Area Office
P.O. Box 1607
Grand Island, Nebraska 68802-1607

Dear Alice,

This letter is in response to your June 13, 2006 letter seeking input on the Bureau's FY 09 Investigations Planning Program. There are three general topics of investigation for which I most anticipate Reclamation assistance may be of help. Those are: 1) Work on a Platte River Water Decision Support System, 2) Work on a Frenchman Valley Appraisal Study or subsequent pre-feasibility study efforts, and 3) Examination of conjunctive use opportunities in the Central Platte Area of Nebraska. I have included Activity Plan summary sheets for each of those proposed efforts.

The requested assistance on the Platte River Water Decision Support System would be a Special Study that would help the State begin to assemble and implement a system. A previous Reclamation evaluation provided information on options and Reclamation staff are currently assisting NDNR staff with examining potential costs and staff needs. By the end of FY 09 it is anticipated there will have been time for consideration and system assembly and implementation efforts may be ready to begin.

The requested assistance on the Frenchman Valley Appraisal Study or pre-feasibility study efforts would be used to finish an evaluation of alternative program activities, structural measures, or incentives that can assist in optimizing existing facilities, providing lake level benefits, and providing recharge facilities for Enders Reservoir and the irrigated area it serves. Efforts to finalize a study design and begin work on this effort are now underway and it is uncertain whether the appraisal study will be complete and pre-feasibility work needed by the beginning of FY 09. This request is to provide assistance to complete the effort as understood at that time.

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The requested assistance on examining conjunctive use opportunities in the Central Platte Area of Nebraska is to help finish a study already underway with Nebraska Public Power District and the Central Platte Natural Resources District providing study leadership. The study will analyzed water management opportunities in an area whose water availability and use is central to a cooperative agreement between the states of Nebraska, Colorado, Wyoming and the federal government.

In addition to the above opportunities, we understand that the Nebraska Game and Parks Commission has submitted a request for assistance for a Meeker-Driftwood Appraisal Study and intends to examine water supply problems and opportunities related to Swanson Reservoir. We believe that such and examination would be beneficial.

Thank you for your offer of assistance. If any additional needs should arise, or if additional state matching potential should become available, we will contact you. We greatly appreciate the Bureau's past assistance and look forward to working with you in the future.

Sincerely,

Ann Bleed Acting Director

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### FY 2009 ACTIVITY PLAN - FRENCHMAN VALLEY APPRAISAL STUDY

Region:

Great Plains

Date:

August 10, 2006

### NEBRASKA INVESTIGATIONS PROGRAM

Appraisal Study Final Completion or Pre-Feasibility Study Work

Total

Estimated

Cost:

FY 2009

Federal

100,000

Non-Federal

50,000

Total

150,000

Location:

Frenchman Valley of Republican River Basin and Adjacent Areas.

## Description:

# A. Water Resource Management /Development Problems and Opportunities

Enders Reservoir as been experiencing long term declining inflows and dependent irrigation districts have been experiencing long term declines in supply availability. In the last five years there have been no storage releases to the districts. Reclamation reports indicate 2005 was the 38<sup>th</sup> consecutive year with below-normal inflows in which the conservation pool did not fill. Groundwater pumping and land use/conservation activities in the basin have contributed to declining inflows. This has led to concerns about long term supply availability and questions about the value of alternative ways of utilizing limited supplies. Opportunities may exist to: 1) optimize existing facilities, 2) provide lake level benefits, and 3) provide recharge facilities. More efficient management may also help extend supplies and assist with meeting compact requirements. The project area has already experienced economic difficulties from water shortages and future declines plus use reductions for compact purposes seem likely to have further economic impacts.

B. Purpose, General Scope, Key Areas of Concern and Probable Solutions
A draft plan of study was completed in December 2005 for an appraisal study to
evaluate alternative program activities, structural measures, or incentives that can
assist in optimizing existing facilities, providing lake level benefits, and providing
recharge facilities for Enders Reservoir and the irrigated area it serves. At this point
it is uncertain whether the study will be completed by FY 09 and whether, if it is

complete, a other pre-feasibility work may be required to address any study recommendations. This submission is a placeholder to note both possibilities.

C. Relationship to Other Project Purposes

Enders Reservoir provides water to the Frenchman Valley and H&RW irrigation districts. Other Reclamation reservoirs in the Republican Basin, include Bonny (in Colorado), Swanson, Hugh Butler, Harry Strunk, Keith Sebelius (in Kansas), Lovewell (in Kansas), and Enders (operated by/with the US Army Corps of Engineers). In addition to irrigation purposes the reservoirs provide substantial recreation, fish and wildlife and flood control benefits.

# D. Work Proposed in FY 2009

The nature of the work needed will depend upon the completion status and results of the Appraisal Study. If the Appraisal Study is complete, it is believed that some prefeasibility study work will be needed to prepare for that effort.

# Justification for Federal Involvement

There is a previous federal investment in the Enders Reservoir project and the benefits the project provides are threatened by declining inflows. The area is also subject to the requirements of an interstate compact and is threatened with substantial economic impacts from changes in water use.

### Coordination with State, Federal, Tribes

The appraisal level study effort has had participants from a variety of sources, including: Frenchman Valley and H&RW Irrigation Districts, the Nebraska Department of Natural Resources, the Middle and Upper Republican Natural Resources Districts, and the Nebraska Game and Parks Commission.

### Cost Sharing

The Nebraska Department of Natural Resources is currently about to provide up to \$100,000 in cost share for the appraisal level study.

# ACTIVITY PLAN -EXAMINATION OF CONJUNCTIVE USE OPPORTUNITIES IN THE CENTRAL PLATTE AREA.

Region:

**Great Plains** 

Date:

August 10, 2006

### NEBRASKA INVESTIGATIONS PROGRAM

Special Study

Total

Estimated

FY2009

Cost:

Federal

\$150,000

Non-Federal

\$150,000

Total

\$300,000

Location:

Central Platte NRD and NPPD Service Area in Central Platte Region of Nebraska

### Description:

- A. Water Resource Management/Development Problems and Opportunities

  More efficient management of Platte River water supplies can help extend water supplies and meet cooperative agreement and diverse water user needs in an area with water shortages. The groundwater mound built up through years of surface water project operation presents an opportunity to use existing water supplies conjunctively to supplement users in times of shortage.
- B. Purpose, General Scope, Key Areas of Concern and Probable Solutions
  This study will analyze water management opportunities in an area whose water availability and use is central to a cooperative agreement between the states of Nebraska, Colorado, Wyoming and the federal government. Interrelated factors such as new wells, surface water diversions, recharge from surface sources, water use efficiencies through canal lining and strategically supplementing surface irrigation with groundwater are some of the pieces of a complex puzzle. Future management that results in both equity and optimum economic and environmental use will take forethought and analysis.
- C. Relationship to Other Project Purposes:

The Platte River Basin has multipurpose surface water projects and extensive groundwater development. The project has the potential to contribute to all users through more efficient use of water.

- D. Work Proposed in FY 2009

  Phase III will be undergrow which involves im
  - Phase III will be underway, which involves implementing and monitoring management scenarios. Potential management scenarios may include structural solutions.
- Justification for Federal Involvement: This is part of a multi-state basin with an interstate agreement. Power and irrigation district surface water management and natural resources district management of groundwater vital to the local economy.
- Coordination With State/Federal/Tribes This project will be coordinated with Central Nebraska Public Power and Irrigation District, Nebraska Public Power District and local natural resources districts.
- Cost Sharing: The Nebraska Department of Natural Resources/State of Nebraska has and plans expenditures in the area that would likely qualify as match. Although they have not yet been contacted about this particular application, local Natural Resources Districts also have or plan activities in the area which are likely to qualify as match. The total cost of Phase II is estimated at \$626,000 of which \$315,000 would be funded by a grant from the Nebraska Environmental Trust. The remainder of cash and in-kind in the effort is to be funded by Nebraska Public Power District, Central Platte NRD and the Nebraska Department of Natural Resources.
- Congressional District and Delegation: The project is in Nebraska's third congressional district.

  Congressman Tom Osborne represents the District.

# FY 2009 ACTIVITY PLAN – PLATTE RIVER WATER DECISION SUPPORT SYSTEM

Region:

**Great Plains** 

Date:

August 10, 2006

### NEBRASKA INVESTIGATIONS PROGRAM

Special Study

Total

Estimated

Cost:

FY 2009

Federal

100,000

Non Federal

100,000

Total

200,000

Location:

Platte and North Platte Basin in Nebraska, primarily from Lake

McConaughy to Grand Island

### Description:

# A. Water Resource Development Problems and Opportunities

The state of Nebraska or subdivisions of government could utilize information that would assist in better:

- Determining appropriate water releases to provide the legally required or requested flows to environmental, irrigation, power, and other requirements when needed.
- Minimizing excess releases beyond those legally required.
- Optimizing both short and long-term water storage releases.

If a Platte River Cooperative Agreement is signed with Colorado, Wyoming and the U.S. Dept of the Interior, a better water release decision mechanism may present additional opportunities.

# B. Purpose, General Scope, Key Areas of Concern, and Probable Solutions

In September 2005 Reclamation released a draft report entitled "Evaluation of capabilities and Needs for a Platte River Advanced Decision Support System (PRADSS) in Nebraska". As a follow-up to that report Reclamation, at the request of the Nebraska Department of Natural

Resources, is currently conducting a follow-up effort to better determine costs and details of work that such a system would entail if implemented. At this point it is uncertain if or when Nebraska might actually go forward with the expenditures needed to adopt such a system. However, it seems possible that such an effort might begin sometime late in FY 09. The assistance needed at that point would be for help in adopting/implementing a system. Needs related to a potential Platte River Cooperative Agreement may be one of the determining factors on whether a decision is made to proceed with the effort.

# C. Relationship to Other Project Purposes

This project has the potential to contribute to more efficient water use for all purposes along the Central Platte River.

### D. Work Proposed in FY 09

The decision on whether to begin work on this effort in late FY 09 will likely be related to two factors. The first factor will be the outcome of the current Reclamation assistance on determining the costs and level of staff time needed if such a system is adopted. The second factor will be whether or not the Platte River Cooperative Agreement is adopted and if so whether the Decision Support System concept is determined to help to meet the agreement needs.

### Justification for Federal Involvement

The study area is part of a multi-state basin with negotiations on an interstate agreement, significant endangered species concerns, and power/energy uses of water. Agricultural water uses are a vital component of the local economy and the source of many livelihoods in the basin.

### Coordination with State, Federal, Tribes

This project would be coordinated with Central Nebraska Public Power District, and a number of Natural Resources Districts.

### Cost Sharing

At this point the cost sharing provisions are not set. The likely method of funding would be from cash and in-kind staff time supplied from the Nebraska Department of Natural Resources and from other units of government or the Cooperative Agreement process.