REPULICAN RIVER RIPARIAN PROJECT

April 9,2003

Southwest Nebraska RC&D Office in Cambridge, NE

Attendees:

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Minutes:

The meeting was called to order by Rich Mullaney, RC&D Coordinator with the Southwest Nebraska RC&D. Rich gave a short description of RC&D and the leadership of the RC&D Council in starting a project like the Republican River Riparian Project. The project will look at ways to increase management in the riparian area of the Republican River. Rich reviewed the outline of the "Stream Corridor Restoration" book. The book gives a good outline of how to work with projects of this type.

All attendees were requested to give a short report on information they have regarding the Republican River and how could they partner and assist with the project. Speakers and comments are:

Steve Irvin NRCS Wray CO.

- Talked about the reduction of flow in the Republican River in Colorado
- 2500 Center Pivots in Yuma County
- Each spring there is a Water Festival in Wray.
- See attachment #a for more comments

Marvin Brown NRCS, Lincoln, NE

- Discussed watershed report completed in 1978
- See summary Attachment #b

- NRCS can provide technical assistance and can work through programs such as EQIP and Wetland Restoration Programs to achieve goals

Jennifer Nelson, Ground Water Foundation. Lincoln

- Jennifer felt that they could be of most help with education and supports the concept
- See Attachment #c

Merle Illian, Trailblazer RC&D

- Irrigation Districts are concerned about unwanted vegetation growth all the streams. Would like to use fly ash to line the canal system from Bostwick to Lovewell Lake
- Irrigation District would like to also talk about off stream water storage in valleys
- Cottonwood trees are being harvested for pallets and the harvesters are leaving the underbrush. Maybe the remaining under brush could be chipped for bedding? Some funds may be available for this.
- Discussed how it does not take much rain to see bank erosion
- The Americorp program in the past did some work in area. They did some wellhead protection inventories and help with Rural Water District development. Americorp has change direction to Sustainable Farm and Food Initiative.

Jill Manring, Bureau of Reclamation. Grand Island.

- Environmental impact study on the Republican River is limited
- The endangered species study is done for both Nebraska and Kansas
- Environmental Impact Statement completed in July 2000. There is a water quality issue basin wide. There are elevated levels of selenium and sedimentation.
- Current studies are on hold because of the drought.
- The information is available at the Bureau office in Grand Island

Tom McCoy NE Game and Parks Commission

- Some concerns with undesirable vegetation, primarily Russian Olives and Cedar trees
- The Wild Nebraska Program for property owners has the following available: Financial support for wetlands.
 - Wild life development
 - Cost share to five years.
- The biggest problem is the resistance to change.
- There are changes in wild life populations. Turkeys and white tail deer are increasing and quail and pheasants are decreasing.
- Would like to work with the Republican River Riparian Project in finding funding. Examples:
 - Pheasants Forever
 - Ducks Unlimited.

Dave Griffith NRCS Curtis

- Had \$500,000 available from the EQIP program from an application list of \$3.9 M
- Cost share on center pivots 40% 2003, 30% 2004.
- If you want to get a permanent change, like get cattle off the river, you need an educational process.

Summary:

Step 1. Identify what each agency can do.

Step 2. Set up an Advisory Board to oversee the project and review proposals.

Step 3. Establish the Technical Task Forces. Should include the following:

Government Lands

Game & Parks

Fish & Wild Life

NRCS

NDEQ (Holdrege)

Bureau of Reclamation

USGS (Denver)

Corps of Engineers

Irrigation Districts

NRD's

Congressional staff

Ground Water Foundation

Property Owners

Business interests

Communities

Counties

The Southwest Nebraska RC&D will start working these steps.

Matthew Landon, with USGS, sent e-mail message to assist with project. See attachment d.





Natural Resources Conservation Service Wray Field Office 247 N. Clay, Suite 1 Wray, Colorado 80758 970-332-3173 X3 - Office 970-332-4425 - Fax www.co.nrcs.usda.gov Gary.Campfield@co.usda.gov

Presented by Steve Ivins:

There are 3 local activities happening in our area that could effect the Republican River Basin

- 1. Wray is a unique town in Eastern Colorado next to the Kansas and Nebraska state-line. This town is unique because it is one of the few towns with a live stream flowing through it. Wray sets near the headwater of the North Fork of the Republican River. This river comes from springs flowing out of the Ogallala Aquifer. In May 1987 a Colorado Non-point Source Task Force was formed. This task force identified North Fork of the Republican River as being negatively impacted by sediment and nutrient pollutants. Causes of these pollutants were attributed to agricultural practices in the watershed with streambank erosion identified as a major source of sediment. Therefore, Yuma County Conservation district has applied for a \$24,000 Non-point Source Water Quality Planning Grant. This planning grant would help form a watershed management organization. This group would write an on-going watershed plan that influences water quality. This plan would address suspected problems such as streambank grazing, sediment loading of the river, and water temperature for fish habitat. This grant is in the process of being reviewed by the state water quality division. Sometime this summer we should hear if we will receive it.
 - 2. The Colorado Division of Wildlife has had a habitat partnership program for over 10 years now, mostly in the mountain areas. Today there is a push to do the same thing on the eastern plains. Yuma and Washington counties have been chosen to be a pilot area. This habitat program creates a locally lead group that addresses wildlife issues, both positive and negative issues. With this program comes money for wildlife projects that can be leveraged with other USDA programs. We are in the formation phase at the moment.
 - 3. The local FFA chapter, along with other friends, is researching the possibilities of establishing a wind generator above the school on the bluffs. It is hoped that this generator could help school budget. An engineer has visited the site last week and some initial planning grants have been obtained.

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.



Republican River Restoration Project

The Republican River Basin has a long history of water quantity and quality concerns, dating as far back as 1935 with the great flood event. In 1942, the Representatives of the United State of America and the Commissioners appointed by the States of Colorado, Kansas, and Nebraska approved the Republican River Compact on December 31, 1942.

In 1978, the USDA published a very comprehensive <u>Study Report</u> on the <u>Republican River Basin</u>, <u>Nebraska</u>, <u>Water and Related Land Resources</u>. The study report identifies the types and amount of conservation land treatment and the types of land management needed. The report also talks about the effect conservation practices have on runoff waters from small watersheds.

The Republican River in Nebraska is 280 miles long. It enters the west part of the state with an elevation of 3300 feet, and exits the state in southcentral Nebraska at 1500 feet in elevation. There are 1,495 miles of major tributaries including Sappa Creek, Beaver Creek, Medicine Creek, Red Willow Creek and the Frenchman River. There are approximately 23, 709 acres in six public lakes in the basin. There are six PL-566 watershed projects in the basin. They have constructed 25 structures for erosion control and flood prevention.

The major problems identified:

- Sheet and rill erosion:
- Gully and streambank erosion:
- Nutrient loading:
- Consumptive water use increases:
- Flooding of cropland:
- Wildlife habitat loss:
- Declining fishery habitat:

Task Force Committees:

- Economics and Land Use Task Force
- Hydraulic and Hydrology Task Force
- Fish, Wildlife and Recreation Task Force
- Flood Damage and Drainage Task Force
- Conservation, Soil Loss, Sediment, and Non-point Pollution Task Force
- Municipal, Industrial and Rural Domestic Water Task Force
- Plan Formulation Task Force

Study Objectives:

- Status of land use and treatment.
- · Extent of soil losses and sources of sediment yield.
- Extent of floodwater damages in delineated watersheds and determination of the potential for alleviation of these damages.
- Extent of agricultural non-point pollution, and possible remedial measures.
- Extent of excess water on agricultural lands.
- Need for fish and wildlife habitat improvement.
- · Recreation needs.
- Extent of needs for water supplies or waste disposal in municipal, industrial and rural domestic areas.
- Effect of land treatment on surface water supplies for irrigation.

Future Conservation Activities

The NRCS can provide technical assistance for inventories and evaluations of natural resources, and planning assistance to solve resource problems on an area-wide, watershed, or river basin basis.

4/08/03

(C)

Mid-High Plains Education Initiative (MHPEI)



A program of
The Groundwater Foundation
P.O. Box 22558
Lincoln, NE 68542-2558
1-800-858-47844/402-434-2740
www.groundwater.org

Introduction

The Mid-High Plains Education Initiative (MHPEI) is a 5-year educational program to provide citizens of the Republican River Basin with information about water issues. The project also encourages collaboration among citizens and communities in order to conserve and protect the water resources of this region in Nebraska, Kansas, and Colorado.

Project Sponsors

The Groundwater Foundation, a national non-profit organization with a mission to educate the public about the nature and value of groundwater and related natural resources is the primary project administrator. Funding is provided by the Kansas-Nebraska Area Office of the Bureau of Reclamation. In addition, the MHPEI project is a broad-base effort between various partners within the region, including Natural Resources Districts, professional and agricultural organizations, state and federal agencies, educators, and interested citizens.

Why the Republican River Basin?

- Need identified by the Bureau of Reclamation
- Need for continued education
- Conflict and litigation between states
- Water-stressed region

<u>Audiences</u>

- Farmers and ranchers
- Municipalities (mayors, city council, city managers, utility managers)
- Recreation based businesses
- Irrigation Districts
- Municipal Business Owners
- Other interested parties

- Natural Resources Districts
- Farm dependent or related businesses (Public Power Districts, implement dealers, etc.)
- Financial institutions
- School Districts
- Well Drillers
- County Extension offices



MHPEI: YEAR ONE

The MHPEI project was officially launched in June of 2001. Seminars in the first year addressed topics such as:

- Basic groundwater concepts (i.e. the hydrologic cycle, etc.)
- Kansas v. Nebraska lawsuit
- Water conservation and drought
- Current and future groundwater/surface water policy options
- Federal and state agency responsibilities
- Current water issues

Year One Goals

- Develop an understanding of basic groundwater concepts
- Develop an understanding of water management and regulation
- Develop an understanding of the importance of protecting the region's water supplies
- Encourage local action and leadership
- A successful launch and building of the project database

MHPEI: YEAR TWO

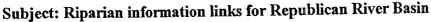
The second year of the project included expansion into the expanded Republican River basin in northern Kansas, as well as plans to expand to northeastern Colorado in the near future. Primary issues that are expected to be addressed in year two and into year three include the Kansas v. Nebraska settlement and it's impact, and continued drought in the region.

Year Two Goals

- Successful expansion into Kansas and Colorado
- Leadership group emerging in Nebraska
- Cooperation and collaboration between communities and states
- · Continued and increased understanding of water concepts and issues

LESSONS LEARNED

- Local hosts
- Planning committee
- Speaker and format variety
- Visit local communities
- After the meeting
- Stay visible
- Respond to participants' suggestions
- Meals



Date: Thu, 10 Apr 2003 15:07:50 -0500

From: "Matthew K Landon" < landon@usgs.gov>

To: richard.mullaney@ne.usda.gov

CC: "Matthew K Landon" landon@usgs.gov

Richard,

I have attached the information that we discussed in our phone conversation today regarding sources of information on riparian vegetation in the Republican River Basin. The information discussed in our conversation and described below is probably the most relevant information we have related to riparian areas in the Republican River Basin.

The attached file UNL Thesis Johnson 2001.pdf is a electronic copy of a Master's Thesis written by Michaela Johnson, a member of our staff, that describes historical changes in riparian woodland area at selected sites in the Republican River Basin from the late 1930s to the mid 1990s. This project was done as part of the regional ground-water investigation the USGS conducted in the Republican River Basin, for which you have the CD's documenting the models and data compiled. The attached copy of this thesis is provided with permission of the author.

(See attached file: UNL_Thesis_Johnson_2001.pdf)

We used digitial land use data (coverages) produced by the GAP program (see website http://www.gap.uidaho.edu/) to delineate areas of riparian woodland in the Republican River Basin for the purposes of our ground-water study. Because this land use analysis program is a work in progress and the data are still being produced and updated, I recommend that you contact the GAP programs in each state to obtain the most recent information. The websites for each of the State GAP programs are:

Colorado: http://ndis.nrel.colostate.edu/cogap/

Kansas: http://www.ksu.edu/kansasgap/ Nebraska: http://www.calmit.unl.edu/gap/

Please let me know if you need other information that we have or have questions regarding the attached information.

Sincerely,

Matt Landon

Matthew Landon, Hydrologist U.S. Geological Survey 100 Centennial Mall North, Room 406 Federal Building Lincoln, NE 68508 Ph: 402-437-5836 Fax: 402-437-5139

Name: UNL_Thesis_Johnson_2001.pdf

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