

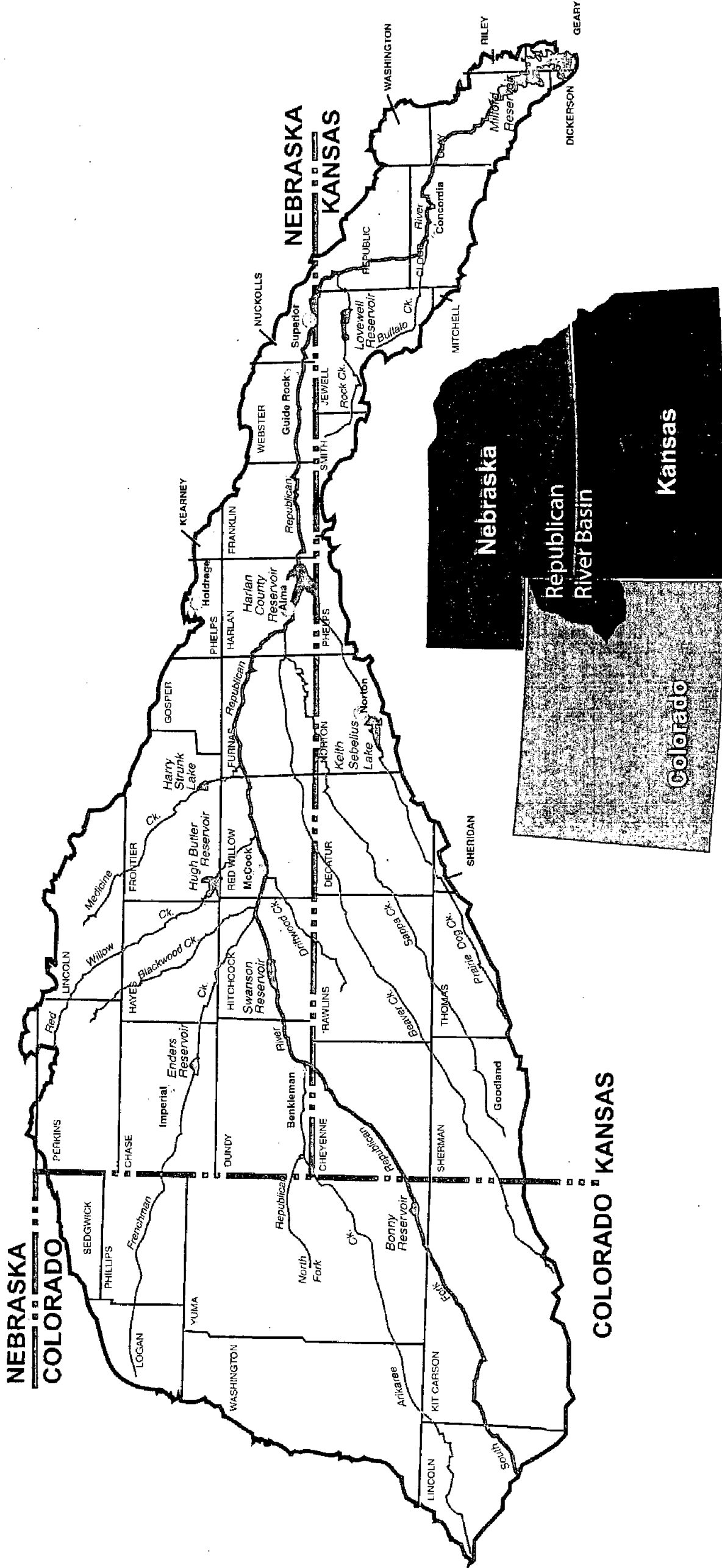
REVIEW, EVALUATION AND UPDATE OF REPUBLICAN RIVER MODEL

POTENTIAL WORK ITEMS

February 15, 2006

LIST OF MAJOR ISSUES, PROBLEMS, AND/OR TASKS:

1. Mound Credit is Decreasing: Using a non-modeling approach, investigate and assess likely reasons for decreases, including
 - a. Less water is being delivered to CNPPID,
 - b. New wells,
 - c. More GW pumping to make up for reductions in surface water supplies,
 - d. Maximizing well uses for establishment of water rights, and
 - e. Increase in irrigation efficiency.
2. Compliance with RRC Settlement: Years 2006 and 2007.
3. Review or Audit of Groundwater Model Input:
 - a. Review pumping, recharge, canal losses, ET, and etc for post-2000 Compact simulations, and
 - b. Is the model still tracking real-world conditions with current estimates of pumping, recharge, etc.?
4. Questions on Compact Accounting Water Supply Worksheets. Topics include,
 - a. Are the 'curves' on track or diverging?
 - b. Why are reservoir levels at record lows yet precipitation is near normal?
 - c. Are conservation practices having a significant effect? And
 - d. Is there a lag in the system (land surface to aquifer, and aquifer to stream)?
5. Reasonable Procedures for Scenarios. Is it reasonable to ramp recharge and pumping up or down?
6. Streamflow Response: What are the streamflow responses to increases or decreases in Groundwater pumping.
7. Groundwater Pumping Estimates:
 - a. Comparison and assessment of metered data and indirect estimates in Nebraska.
 - b. Review of pumping estimates provided by Colorado.



2000-2040 Lag Effect work
assuming no increase from 2000 development
spreadsheet - Run it to from 2004

Cookson wants Larry Land and Chuck Spalding
to look at water claim (Steve Smith's) data

2002		Computed Beneficial Consumptive Use				
Basin	Nebraska	Unallocated	Nebr.'s sub-basin allocation	Un-used sub basin allocation	Nebraska CU	Sub-Basin over use
North Fork	9890	21320	20315	14995.48	5320	0
Arikaree	180	-10	175	0	350	175
Buffalo	1950	3960	3886	266.44	3620	0
Rock	3870	5800	6706	3406.2	3300	0
South Fork	370	3720	2189	909.08	1280	0
Frenchman	52530	45480	74770	0	84160	9390
Driftwood	350	1620	1142	0	1270	128
Red Willow	4280	18010	13087	5396.89	7690	0
Medicine	3780	37810	22269	1539.09	20730	0
Beaver	1570	30	1585	0	1840	255
Sappa	1230	530	1489	609.17	880	0
Prairie Dog	1060	6500	4239	4158.5	80	0
Main Stem	84700				135390	
Total All Basins	165760	144770		31280.85		
Nebr.'s share of Unallocated	70793					
Main Stem Including Unallocated	236553					
Main Stem CU Nebraska					135390	
Total CU Nebraska					265910	
Main Stem + Unused sub-basin allocation	115980.85					
Main Stem overuse						19409
Total Basin overuse						29357

Come up with more questions. - send to Cookson tomorrow.

Long Term Planning Options for Republican River

Develop a Scoping Document

Can we agree on what our situation is?

Basic Goals

- Comply with Compact - uncertainty
- Provide certainty for water users
- Maintain regional economic viability
- Provide appropriate transition period to limit adverse impacts of any needed increased regulation on producers - gradual
- Other?

Objectives

- Develop better understanding of hydrological system - mass balance
- Assess validity of compact compliance ground water model - measured evidence
- Assess impact of "conservation" activities on basin's water supply - started to assess the accuracy
- Develop long-term plan for Compact compliance
 - Determine level of consumptive use that can be sustained in "normal" years and still be in compliance with the Compact (Five year running average allocation minus CU):
 - recognize reductions needed in water short years will reduce need to reduce CU in other years
 - recognize need to offset increasing depletions due to lag effect
- Develop plans that can be used in water-short years (2-3 year plans)
 - Determine amount of reduction needed to be in compliance in water-short years
- Assess impact of management plans on basin's economy
- Other

Does it matter given our current computations

SEBAL? - accuracy of meter data - Riparian - Need to know through availability of electric record methodology - develop a research program

Can Compact Be Changed

Long Term options
Riparian Management
Reduce Allocation

Reduce Acres - CREP - bonus for more sign-up
- bonus for permanent retirement

Mike Thompson

From: Ableed [ableed@dnr.state.ne.us]
Sent: Thursday, February 16, 2006 12:47 AM
To: mthompson@dnr.state.ne.us
Subject: Fw: conference



Fw_
nference (109 K)

Rescheduled

-----Original message-----

From: "Lorrie Benson" Lorrie@Groundwater.org
Date: Mon, 13 Feb 2006 09:44:46 -0600
To: "Ann Bleed" ableed@dnr.state.ne.us
Subject: conference

Ann,

We never did hear back from Dave Cookson directly, but late Friday afternoon his administrative assistant told us that you and Jim Cook are both approved to be on the agenda for our March 20 event. I thought I should touch base with you again to make sure the event will still work for you. Derrel Martin committed to being on a 45 minute panel with you titled "Differentiating Consumptive Use, Conservation, and Efficiency." We'll leave it up to the two of you how you split your time and what you talk about. We'll want you to leave a few minutes for questions. The other agenda item is a 15 minute basic session on the Republican River compact and settlement. We were thinking either you or Dave Cookson could make the presentation. Do you have a preference?

Thanks!

Lorrie Benson

Senior Policy Adviser

The Groundwater Foundation

402-434-2740

lorrie@groundwater.org

NOTE: This electronic message and attachment(s), if any, contains information which is intended solely for the designated recipient(s). Unauthorized disclosure, copying, distribution, or other use of the contents of this message or attachment(s), in whole or in part, is prohibited without the express authorization of the sender of this message. Though precautions have been taken to reduce the risk of virus infection and transmission, no representation is made that this email or any attachments are free from viruses. Virus scanning is recommended and is the responsibility of the recipient.