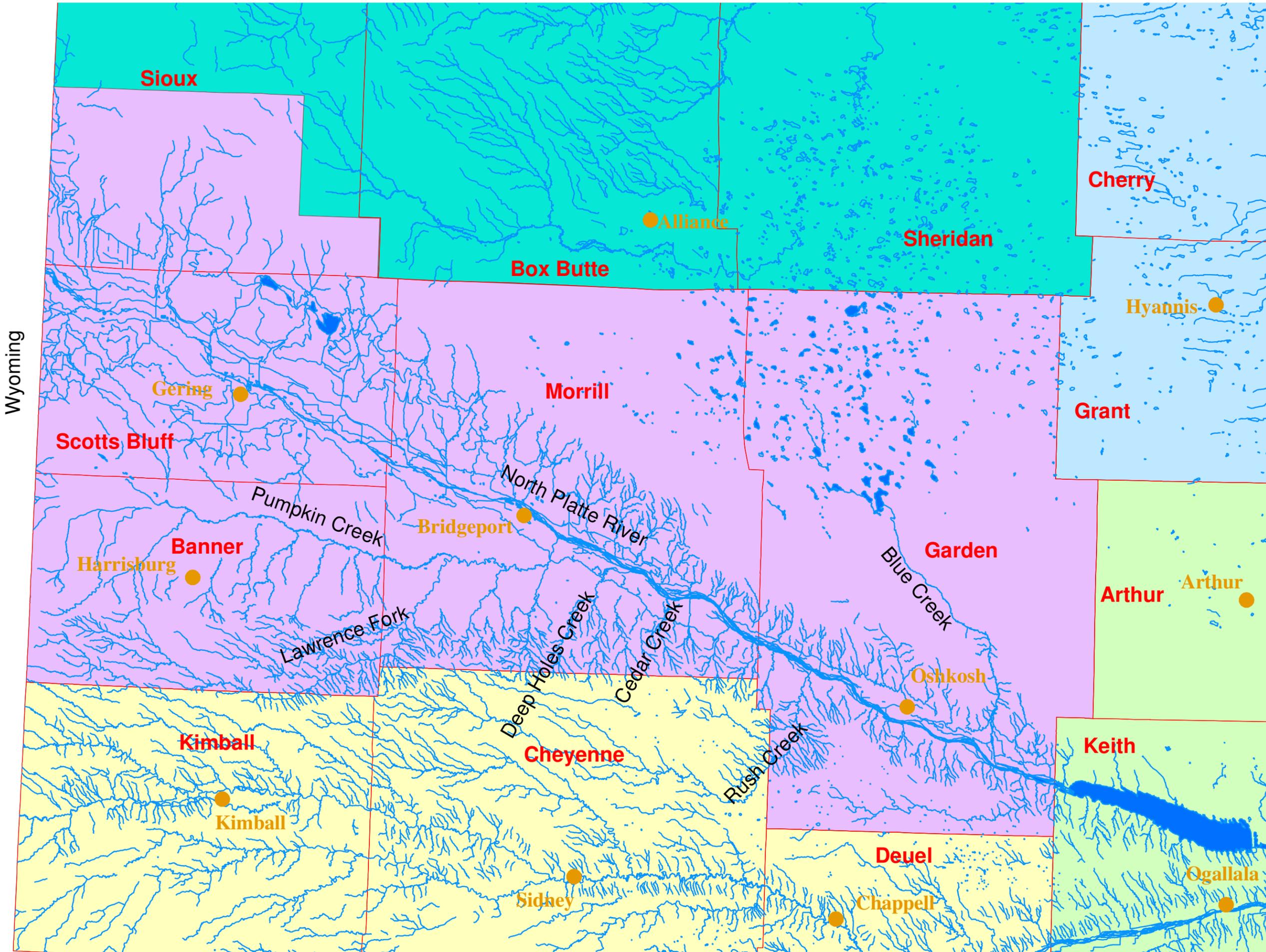


Appendix III

Stream Network



Legend

- County Boundaries
- Stream Network
- Lakes

Natural Resource Districts

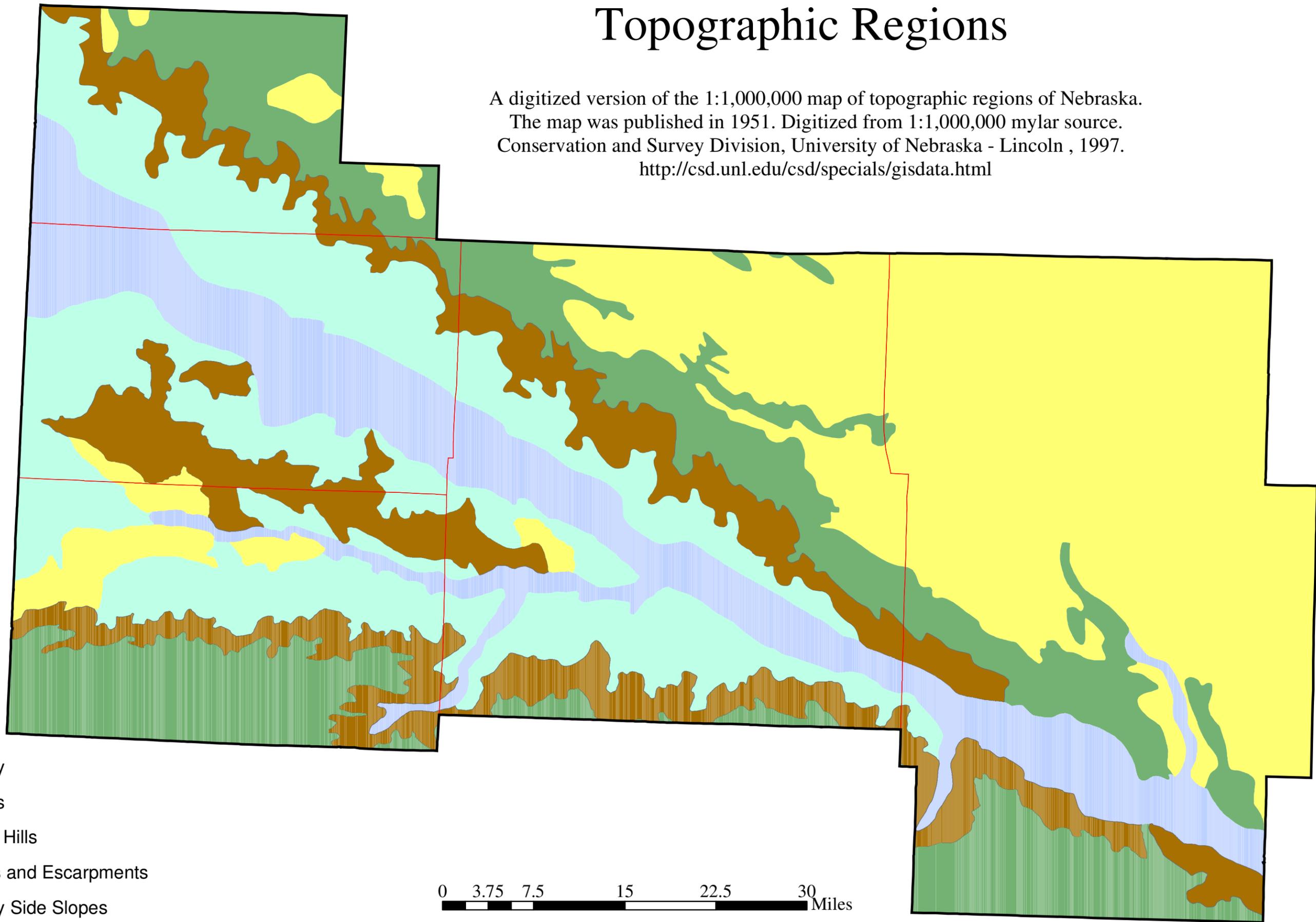
- Middle Niobrara
- North Platte
- South Platte
- Twin Platte
- Upper Loup
- Upper Niobrara White
- Cities

Wyoming

Figure 1

Topographic Regions

A digitized version of the 1:1,000,000 map of topographic regions of Nebraska.
The map was published in 1951. Digitized from 1:1,000,000 mylar source.
Conservation and Survey Division, University of Nebraska - Lincoln , 1997.
<http://csd.unl.edu/csd/specials/gisdata.html>



Legend

- Valley
- Plains
- Sand Hills
- Bluffs and Escarpments
- Valley Side Slopes
- County Boundaries
- NPNRD Boundary

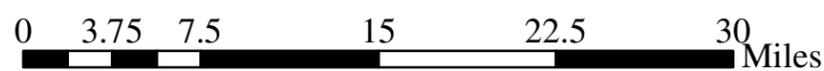
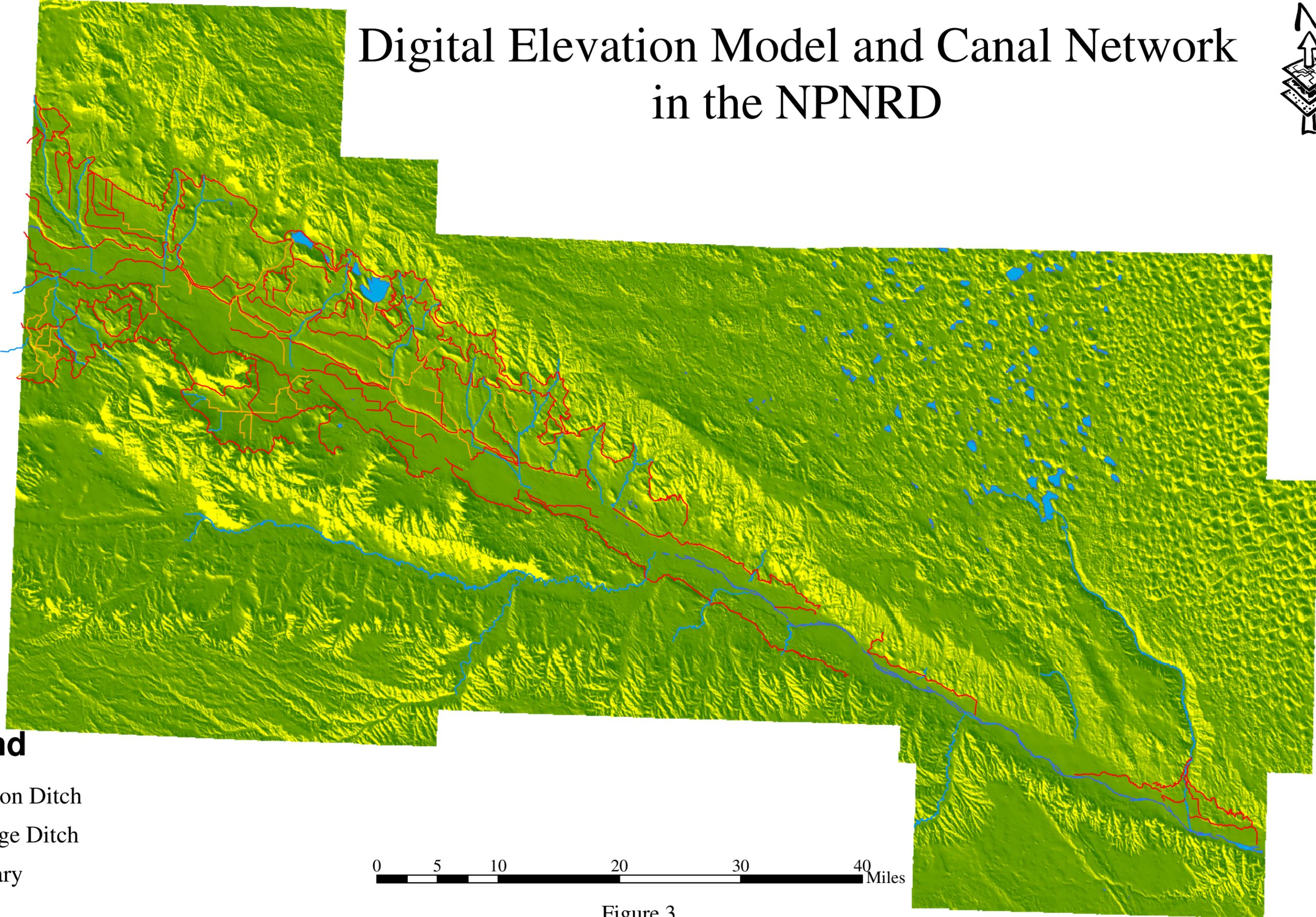


Figure 2

Digital Elevation Model and Canal Network in the NPNRD



Legend

- Irrigation Ditch
- Drainage Ditch
- Tributary
- Lakes

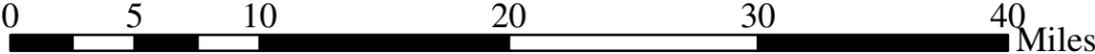


Figure 3



Land Use

North Platte Natural Resource District and Surrounding Area

Legend

-  NPNRD Boundary
-  County Boundaries
- Land Use**
-  Dryland Alfalfa
-  Dryland Corn
-  Dryland Dry Edible Beans
-  Dryland Potatoes
-  Dryland Small Grains
-  Dryland Sorghum
-  Dryland Soybeans
-  Dryland Sugar Beets
-  Dryland Sunflower
-  Irrigated Alfalfa
-  Irrigated Corn
-  Irrigated Dry Edible Beans
-  Irrigated Potatoes
-  Irrigated Small Grains
-  Irrigated Sorghum (Milo, Sudan)
-  Irrigated Soybeans
-  Irrigated Sugar Beets
-  Irrigated Sunflower
-  No Data
-  Open Water
-  Other Ag. Land
-  Range, Pasture, Grass
-  Riparian Forest and Woodlands
-  Roads
-  Summer Fallow
-  Urban Land
-  Wetlands

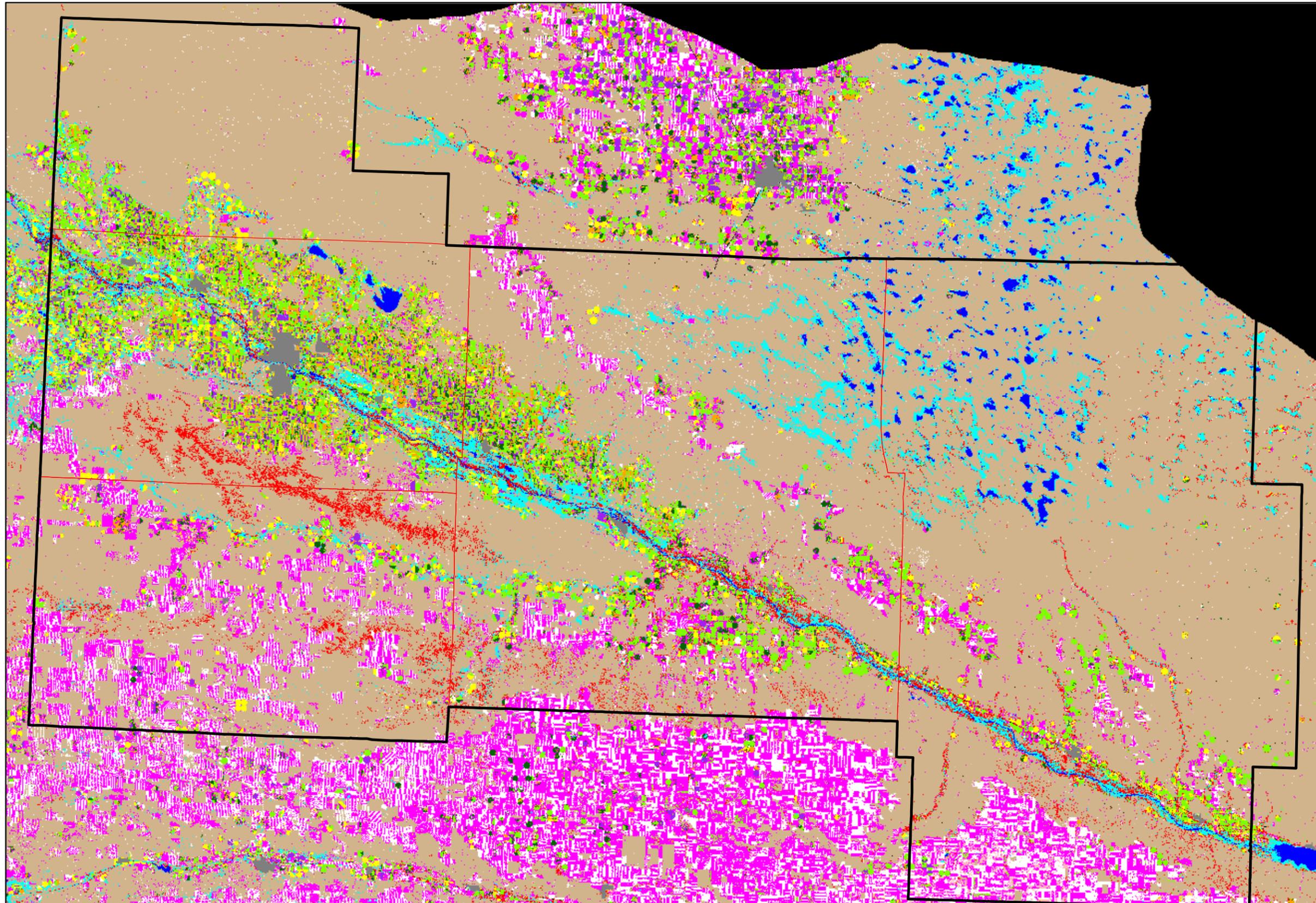
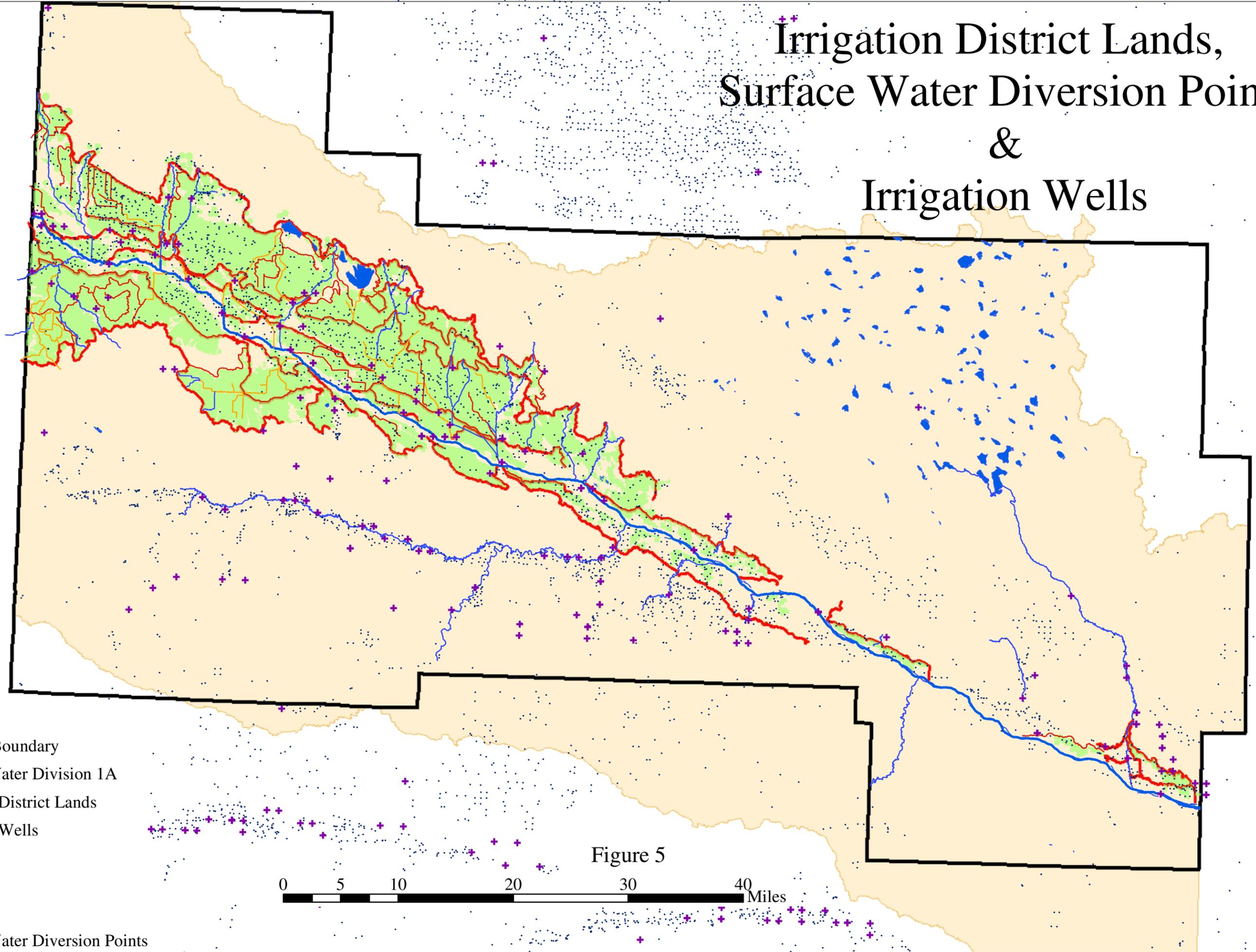


Figure 4

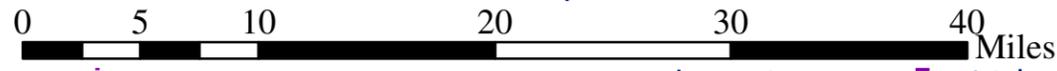
Irrigation District Lands, Surface Water Diversion Points & Irrigation Wells

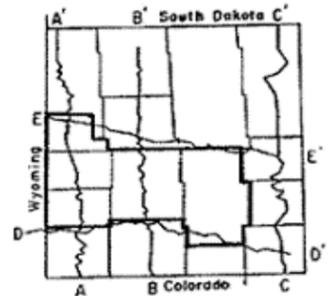
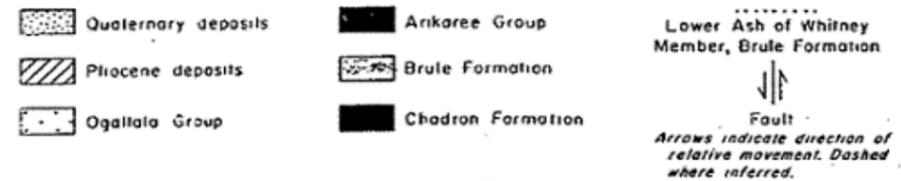
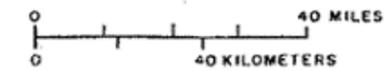
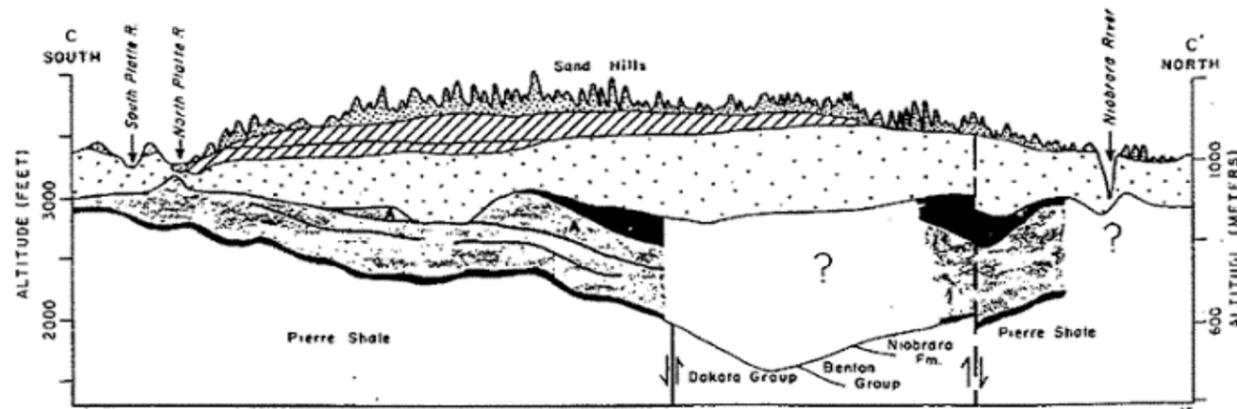
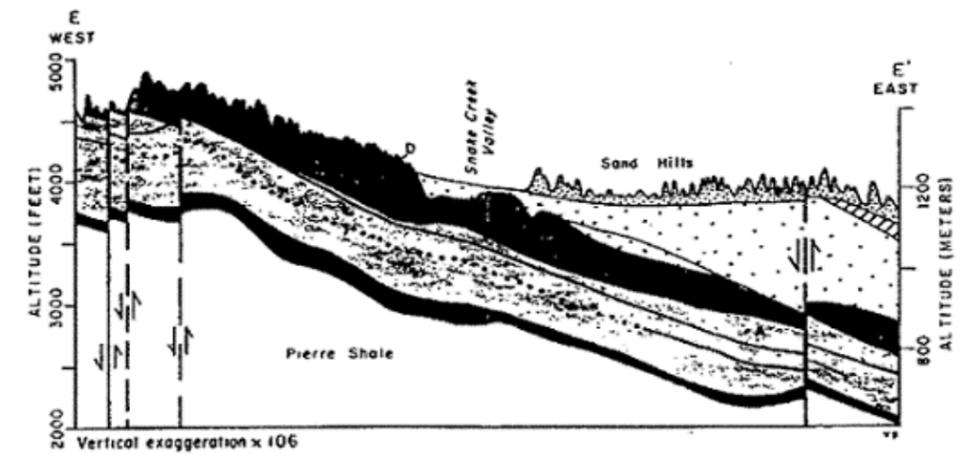
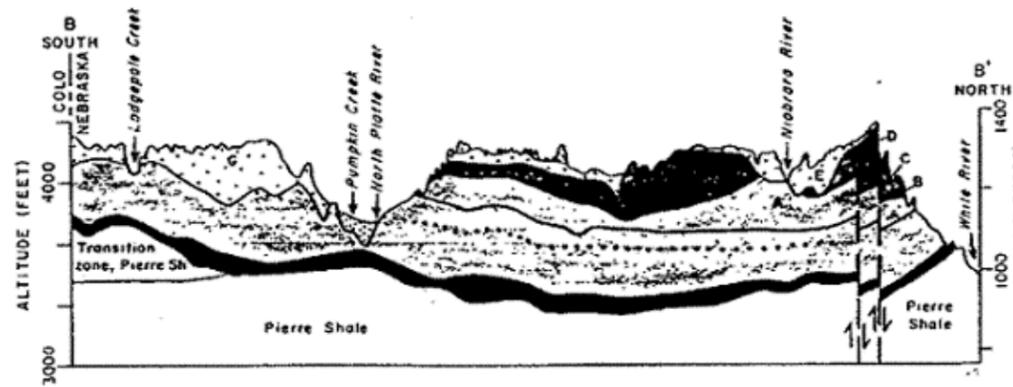
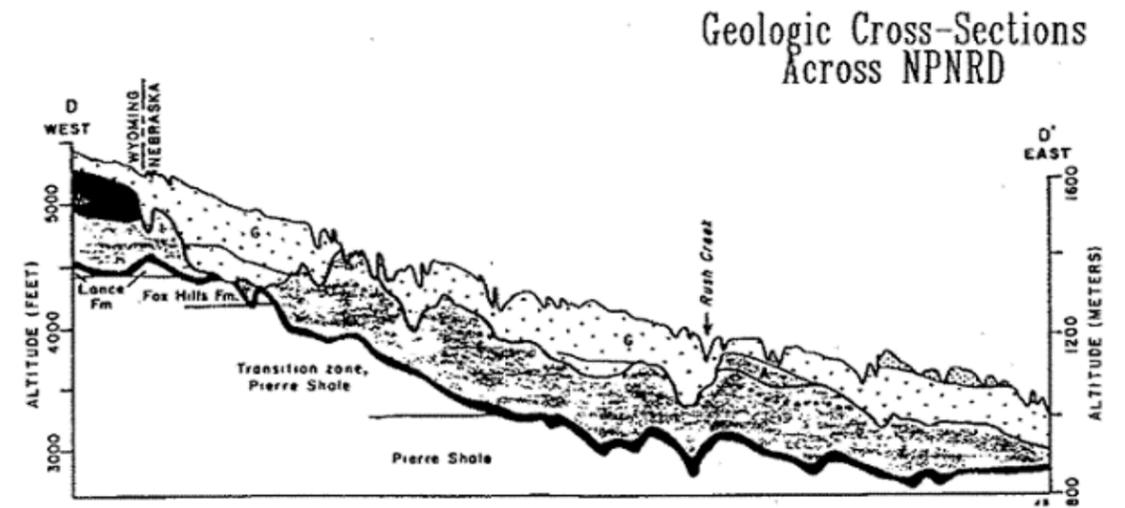
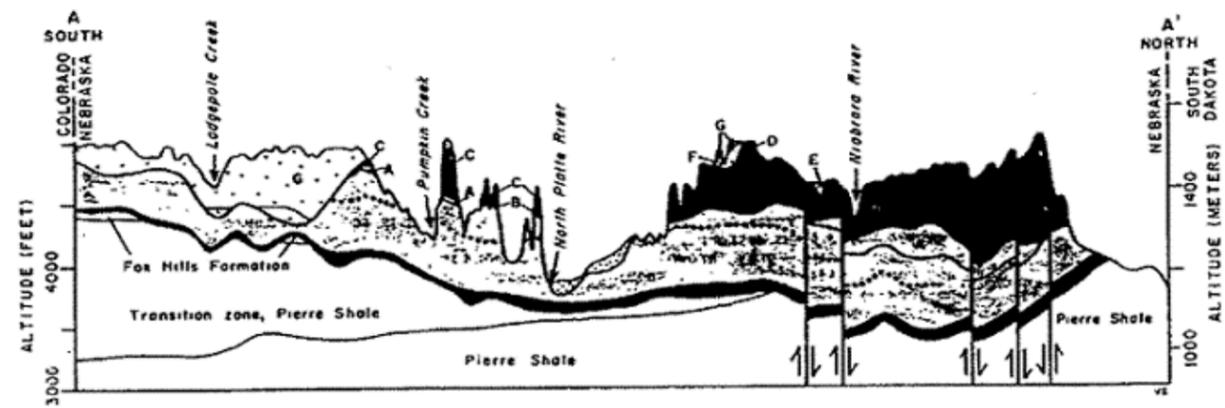


Legend

- NPNRD Boundary
- Surface Water Division 1A
- Irrigation District Lands
- Irrigation Wells
- Canals
- Streams
- Lakes
- Surface Water Diversion Points

Figure 5





Geologic sections across study area. Brule Formation, Arikaree Group and Ogallala Group are subdivided in selected areas as follows:

A-Brown Siltstone beds; B-Gering Formation; C-Monroe Creek-Harrison formations; D-Upper Harrison beds; E-Runningwater Formation; F-Sheep Creek and Olcott formations; G-Ash Hollow Formation.

Figure 6.



Ground Water Regions

Legend

- County Boundaries
- NPNRD Boundary
- Northern Panhandle Tablelands
- Platte River Valley
- Sandhills
- Southern Panhandle Tablelands

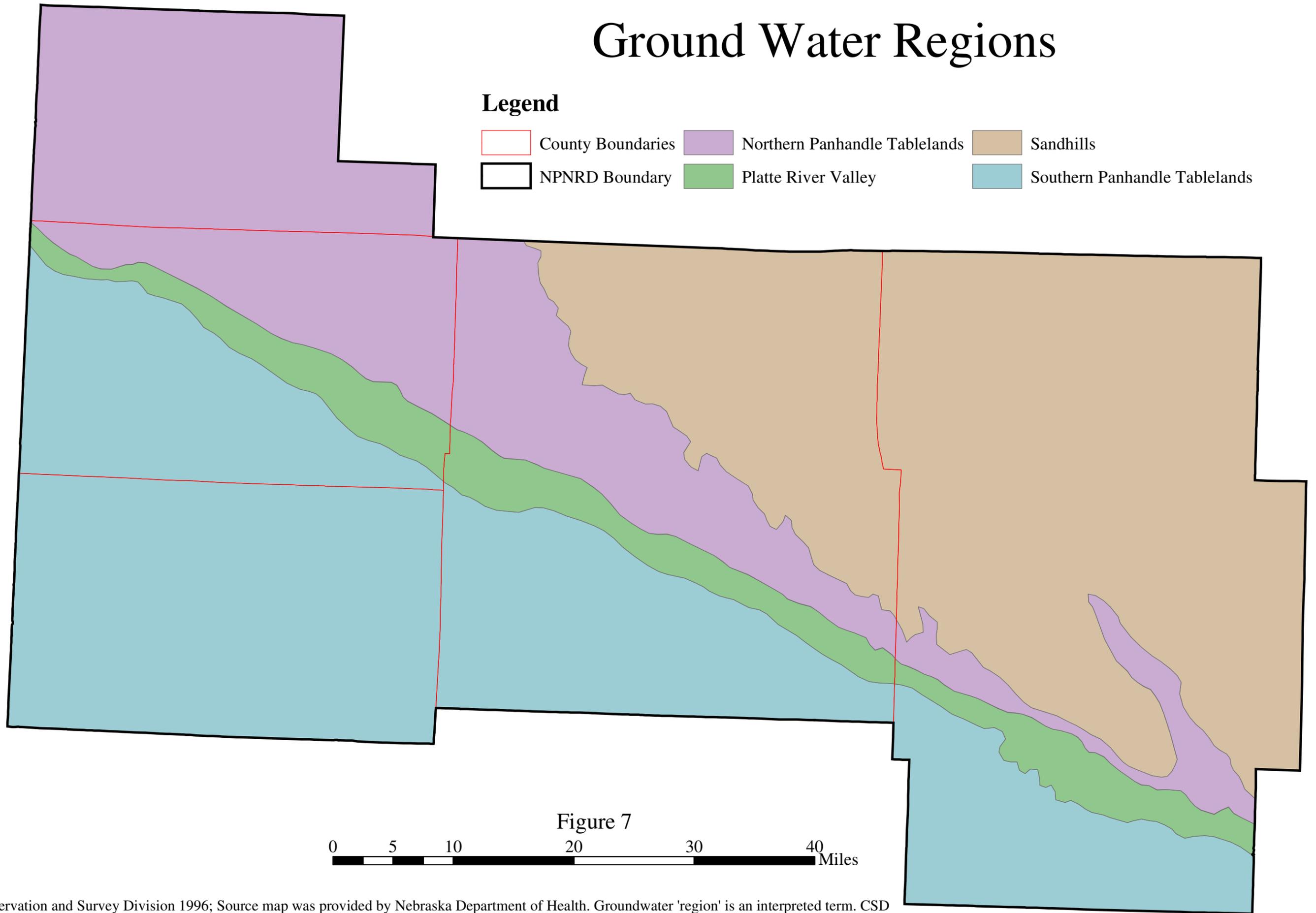


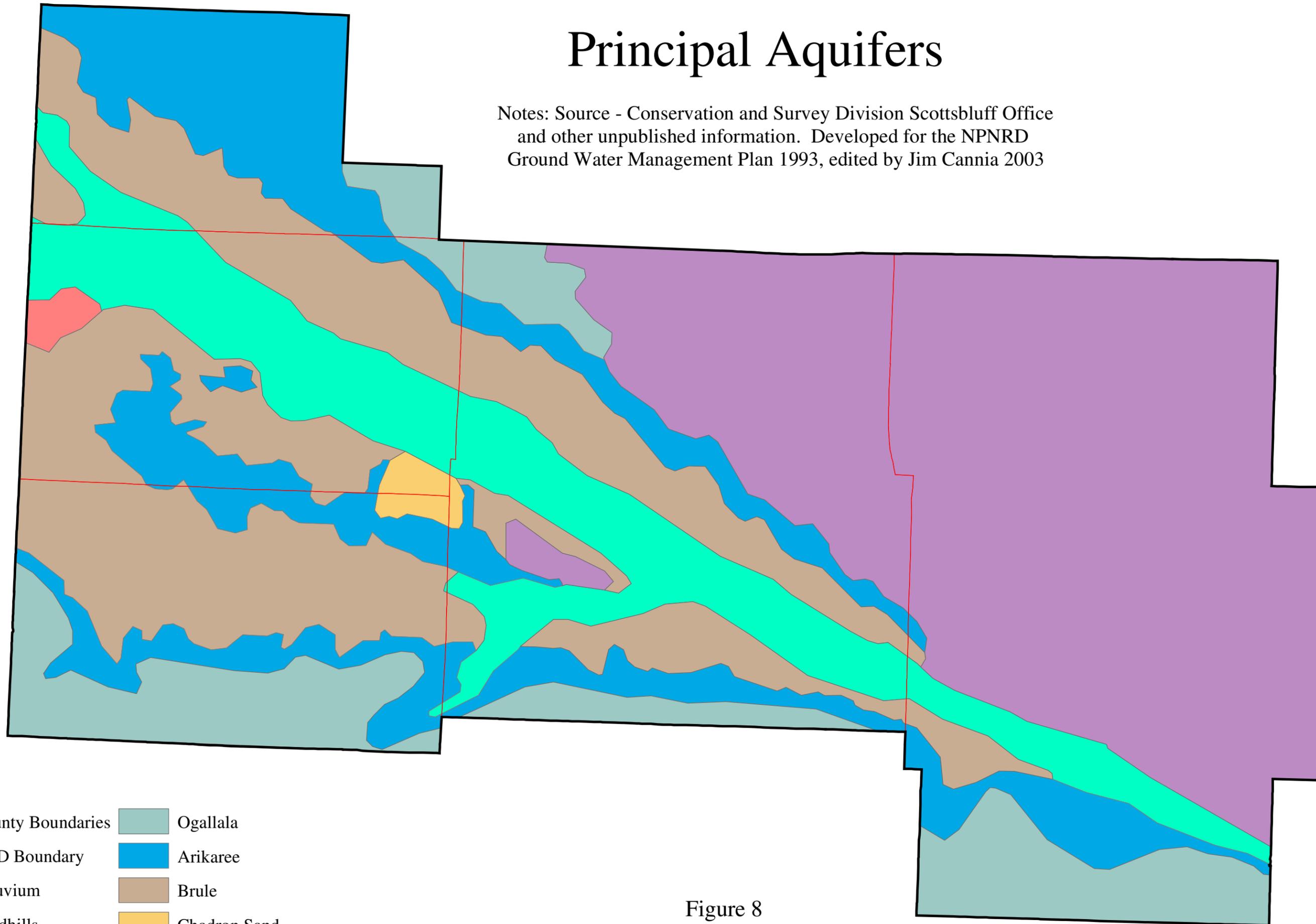
Figure 7

0 5 10 20 30 40 Miles

Note - Source: Conservation and Survey Division 1996; Source map was provided by Nebraska Department of Health. Groundwater 'region' is an interpreted term. CSD has a similar map done in 1968 by Eugene Reed at 1:500,000. The Conservation and Survey Division has produced this product using what is thought to be the most reliable information available or reproduced the material as provided. The detail and precision of the interpretations made are according to accepted professional standards and are dependant upon the techniques, hardware, and/or software utilized. <http://csd.unl.edu/csd/specials/gisdata.html>

Principal Aquifers

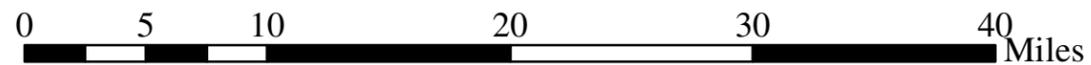
Notes: Source - Conservation and Survey Division Scottsbluff Office and other unpublished information. Developed for the NPNRD Ground Water Management Plan 1993, edited by Jim Cannia 2003



Legend

- | | |
|--|---|
|  County Boundaries |  Ogallala |
|  NRD Boundary |  Arikaree |
|  Alluvium |  Brule |
|  Sandhills |  Chadron Sand |
| |  Undifferentiated Cretaceous |

Figure 8



Water Table Contours & Conservation & Survey Division



Spring 1995

Legend

Water Table Contours

- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- ➔ Flow Direction

Natural Resource Districts

- NORTH PLATTE
- SOUTH PLATTE
- TWIN PLATTE
- UPPER LOUP
- UPPER NIOBRARA WHITE
- County Boundaries
- NRD Boundary

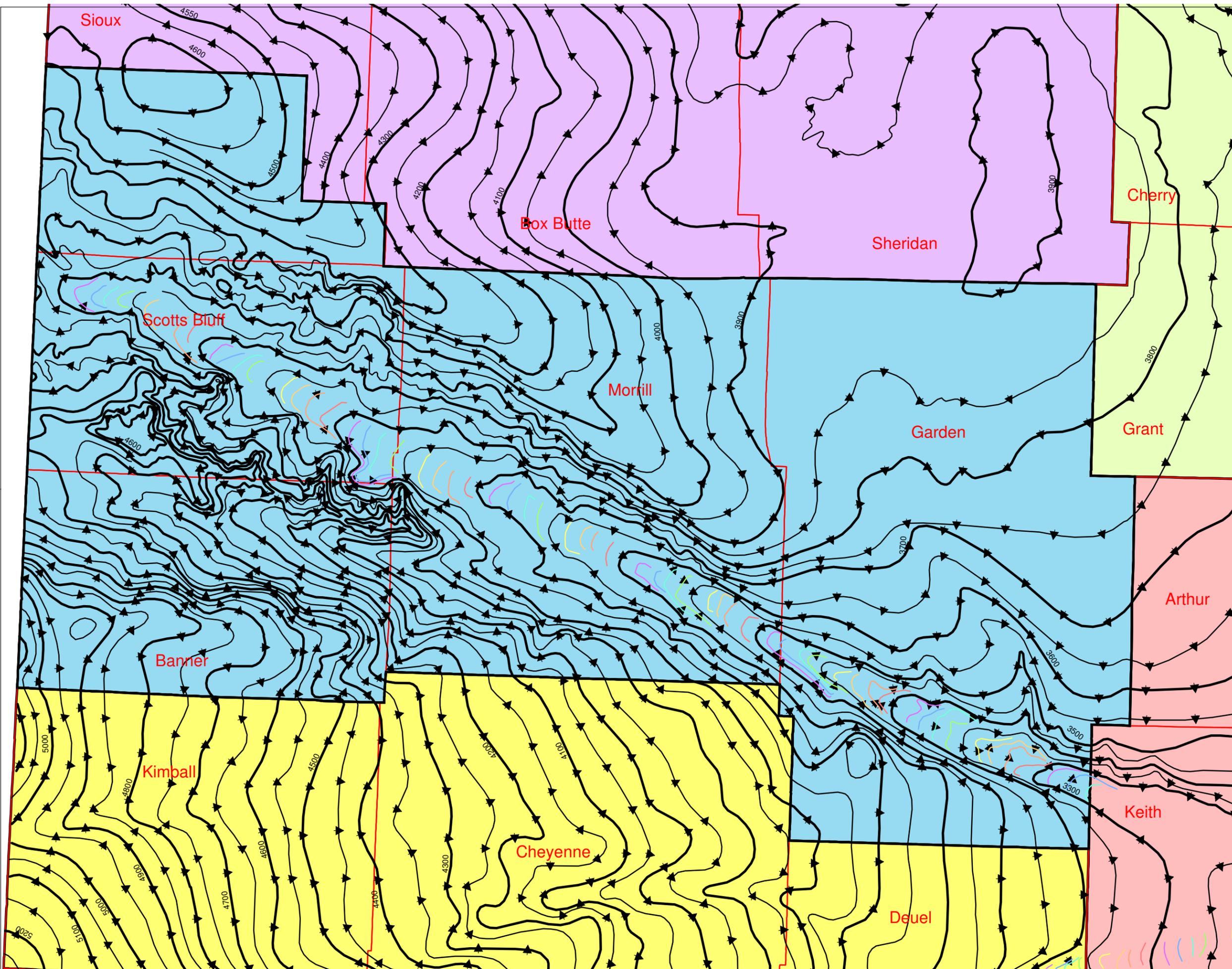
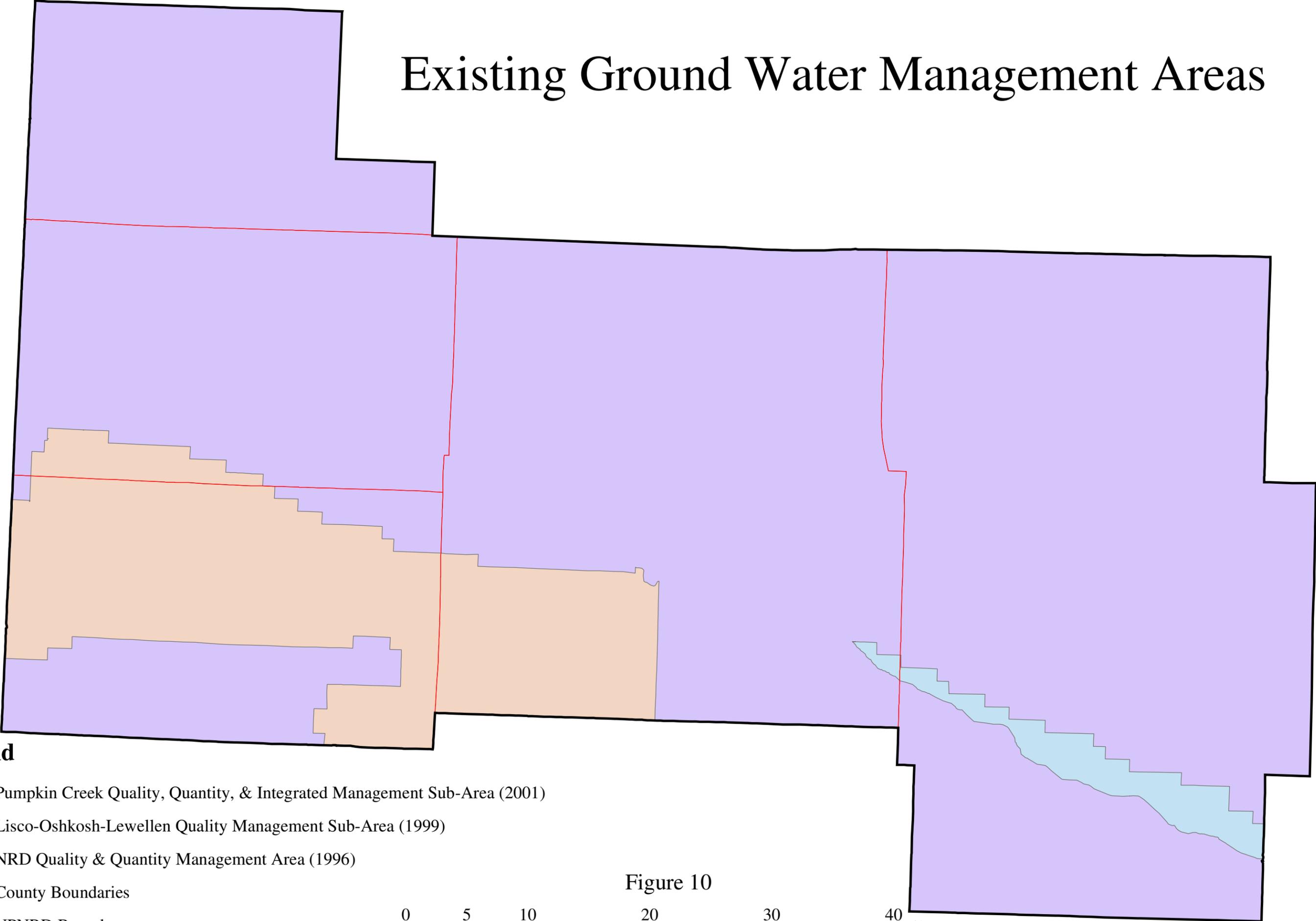


Figure 9

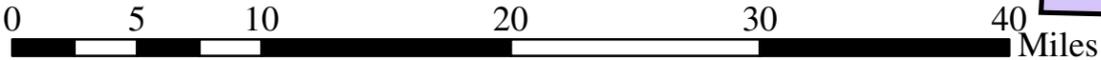
Existing Ground Water Management Areas



Legend

-  Pumpkin Creek Quality, Quantity, & Integrated Management Sub-Area (2001)
-  Lisco-Oshkosh-Lewellen Quality Management Sub-Area (1999)
-  NRD Quality & Quantity Management Area (1996)
-  County Boundaries
-  NPNRD Boundary

Figure 10



Study Areas and Selected Monitoring Well Locations

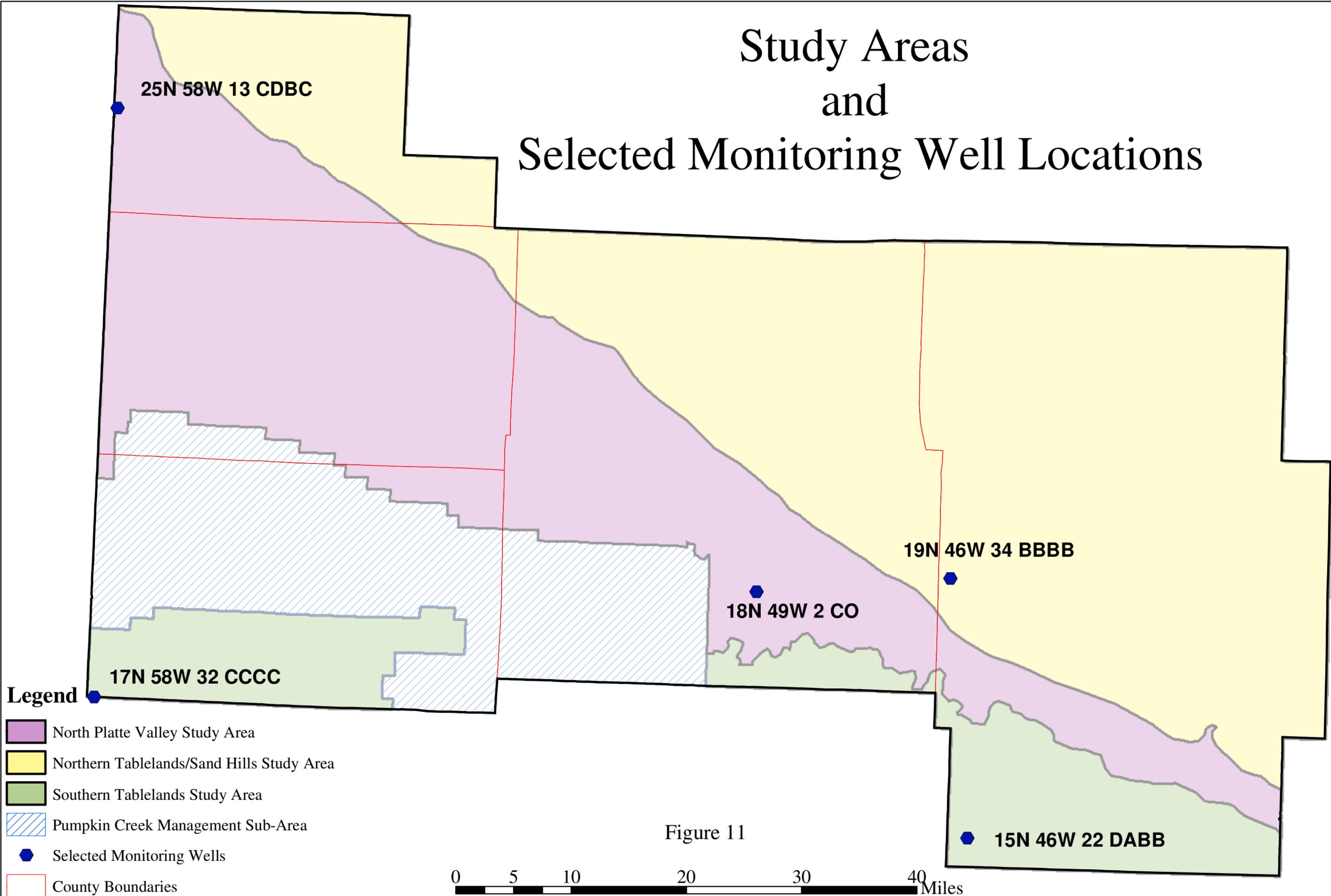


Figure 11

Paleovalley Extent

Note: data developed as part of COHYST modeling effort.
Jim Cannia provided the paleovalley outline.

Legend

Bedrock Elevation Contours

- 500
- 100

Paleovalley

NPNRD

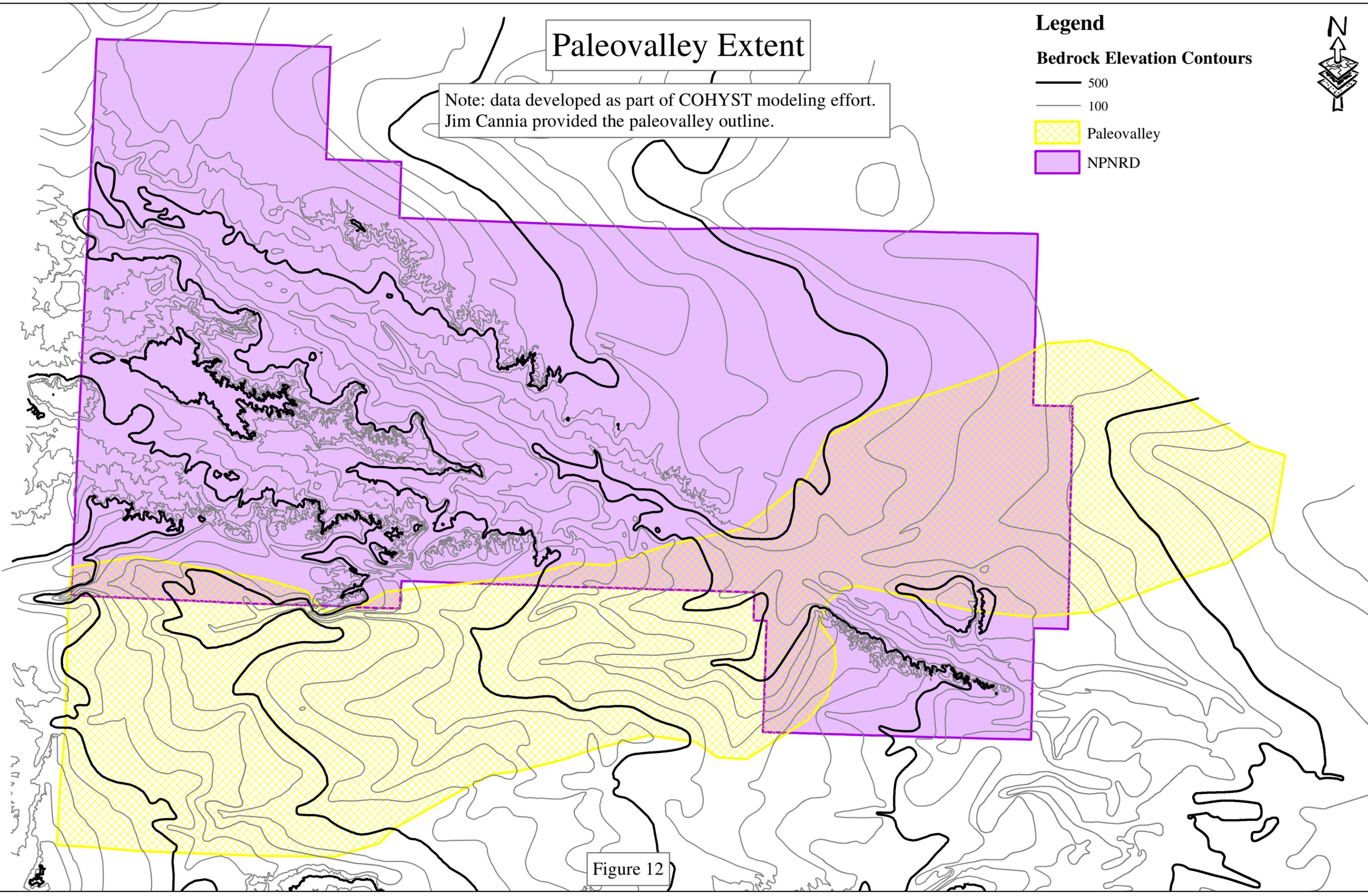


Figure 12