Data task group
Conservation Committee
Republican River Compact Settlement
October 2, 2003 Draft

A. General types of relevant data available

1. Potential data sources

a. NRI – Terraces/Tillage

Description: A statistically based sample of land use and natural resource conditions and trends on U.S. nonfederal lands.
Source: USDA/NRCS
Website: http://www.nrcs.usda.gov/technical/NRI/
Contacts: NE = Wayne Vanek, Doug Garrison. KS = Larry Kuder. CO = Kelly Pace

b. SURGO data base - Small reservoirs

USDA/NRCS Soils Website: http://soils.usda.gov/

c. Digital Orthroquads

Source: USDA Aerial Photo Field Office (APFO)
Website: http://apfonet.apfo.usda.gov/imagerystatus.html

d. State Inventory of Dams

Source: USDA/NRCS Dams Inventory
Description: There are a set of rules NRCS follows for which dams are inventoried found in the NRCS Engineering Field Manual, Chapter 5, page NE 5-23L. Here is a summary:
- Built with NRCS technical and/or financial assistance
- All Class B&C hazard
- Class A hazard more than 6 ft high and 50 ac-ft or more storage
- Class A hazard more than 25 ft high and 15 ac-ft or more storage

e. RRCA Model: Input and output data

f. CTIC – Tillage

Description: The Conservation Technology Information Center (CTIC) is a national, nonprofit public-private partnership working to promote soil and water quality and equip agriculture with affordable, integrated management solutions.
Website:
http://www.ctic.purdue.edu/CTIC/CRM.html
NRCS State Contacts:
NE – Tim Schaaf 402-362-5700
KS - Bud Davis 785-823-4552
CO - Jim Sharkoff 720-544-2812

g. Satellite/Aerial Photos

Historic Aerial Photos.
Source: USDA Aerial Photo Field Office (APFO)
Webstie: http://apfonet.apfo.usda.gov/
Source: UN-L Conservation and Survey Division (1930s to present) Nebraska Only.

Website: http://csd.unl.edu/csd.htm (Contact the Maps/Publication Desk/Room)

2. Non-Federal Reservoirs data needs
See Dams Inventory

a. Surface area of reservoirs
b. Reservoir Volume
c. Reservoir type (use)
d. Condition of reservoir (% silted in, breached, etc.)
e. Reservoir location
f. Contributing Drainage Area
g. Date Reservoir Constructed/retired

3. Land Terraces data needs

Source: USDA/NRCS

Description: electronic Field Office Technical Guide (eFOTG). Technical guides are the primary scientific references for NRCS. They contain technical information about the conservation of soil, water, air, and related plant and animal resources. This site includes links to many NRCS Technical Sources.

eFOTG Website: http://www.nrcs.usda.gov/technical/efotg/

a. Surface area of land terrace
b. Land terrace type
c. Condition of Terrace (% silted in, replaced with sprinkler irrigation, etc)
d. Land terrace location
e. Contributing Drainage Area
f. Date Terrace Constructed/retired or replaced with sprinkler irrigation.

4. Soil Characteristics
(See additional info on Data Gateway or NRCS Soils website: http://soils.usda.gov/)

a. Permeability
b. Hydrologic group
c. Soil water holding capacity

5. Geologic Characteristics

a. Presence and distribution of aquitards or aquicludes

Source: UN-L Conservation and Survey Division
Geologic GIS Data Sets for Nebraska Only
http://csd.unl.edu/csd/specials/gisdata.html

6. Drainage Characteristics

a. Slope Percent or Degree
b. Slope Length
c. Topographic characteristics

Source: UN-L Conservation and Survey Division or NE DNR

DEM/Topographic GIS Data Sets for Nebraska Only
Websites:
http://www.nrc.state.ne.us/databank/spat.html
http://csd.unl.edu/csd/specials/gisdata.html

7. Streamflow Records
(See # 8) also data available at NE DNR website.
- a. Total stream flow
- b. Baseflow
- c. Surface Flow (non-baseflow)

8. Precipitation
USDA/NRCS National Water and Climate Center
Website: http://www.wcc.nrcs.usda.gov/
Climate Data Descitption: The climate data currently used in Conservation Planning are generally observed by the National Weather Service (NWS) Cooperative Network. This nationwide network currently consists of nearly 8,000 active climatic stations. Observations at cooperative stations are performed by private citizens, institutions (such as utilities and television stations), or state and federal agencies. The digital record of these observations is called the Summary of Day (TD-3200).
Climate Data Webiste: http://www.wcc.nrcs.usda.gov/climate/
Water Related Data:
Water Suply Forecasting Website: http://www.wcc.nrcs.usda.gov/wsf/
Stream Flow Website: http://www.wcc.nrcs.usda.gov/wsf/wsf-strmflow-data.html
Precipitation Data including Historic: http://www.wcc.nrcs.usda.gov/wsf/wsf-precip.html
Snow Pack: http://www.wcc.nrcs.usda.gov/snowcourse/sc-snowpack.html
Resivoirs: http://www.wcc.nrcs.usda.gov/wsf/wsf-reservoir.html
PRISM (Parameter-elevation Regressions on Independent Slopes Model)
http://www.ncgc.nrcs.usda.gov/branch/gdb/products/climate/index.html
- a. Amount
- b. Timing
- c. Frequency
- d. Intensity
- e. Location

9. Evaporation/Evapotranspiration
(See #8)
- a. Climatic data
- b. Pan Evap
- c. RRCA Model

10. Landuse / Landcover
(See additional info on Data Gateway)
- a. Past Cropping Patterns
- b. Current Cropping Patterns
- c. Future Cropping Patterns

d. Tillage practices

B. Basin wide data availability and assessment of accuracy and precision of that data

1. RRCA Model (data has been verified and accepted)
2. Sampling and Ground Truthing
3. Statistical tests
4. Missing data will need to be addressed (fill in holes)

C. Data standards

D. Additional data needs

USDA Geospatial Data Gateway Description: The Geospatial Data Gateway provides One Stop Shopping for natural resources or environmental data at anytime, from anywhere, to anyone. Alows you to choose your area of interest, browse and select data from our catalog, customize the format, and have it downloaded or shipped on CD.
Website: http://lighthouse.nrcs.usda.gov/gateway/gatewayhome.html

USDA/FSA Common Land Unit (CLU) Description: A Common Land Unit (CLU) is the smallest unit of land that has a permanent, contiguous boundary, a common land cover and land management, a common owner and a common producer association.
A CLU is delineated from permanent features such as fence lines, roads, and or waterways. This requirement minimizes the number of changes that will be required in the CLU boundary.
Currently, all Service Center Agencies maintain a wide array of information related to land units. This information is fragmented among paper documents and computer systems. All this scattered information related to CLU's can be consolidated.
CLUs are currently being digitized to produce a CLU data layer. Digitizing invloves using GIS to draw border lines on top of the original orthophotograph, calculate the area of the polygon and attach elements of data, such as a label or a field number or a record identifier, to this polygon shape. For Service Centers, these polygons will represent CLU boundary lines.
Each CLU defined in the GIS database will be automatically identified and tracked, for national purposes, with an ID number assigned by the automated system.
This ID is not visible to the user, but can be accessed when needed. The ID is a computer-generated number that is a combination of the longitude and latitude coordinates of the CLU center point and this ID will be unique to the Nation and will never be reused.
CLU Status Websites:
http://fsagis.usda.gov/fsagis/programs/clu/clu_dig_status.cfm
http://apfonet.apfo.usda.gov/statusmaps/clustat.pdf