Technical Projects for 2003
Republican River Compact

1. Surface Water Diversions and Irrigated Acreage

    a. Map Delivery Systems and Fields in Districts above Harlan County Reservoir

        I. Canals Receiving Water – Cambridge and Culbertson (If Diverting)
            Locate Turnouts, laterals, wasteways, buried pipe, siphons etc.
            System Type Identification
            Field delineation
            Wells on same property
            GPS pivots

            Equipment: Laptops, GPS, Handheld data collectors
            Software: ArcView, Pendragon Forms, Microsoft Office
            Staff: 2
            Hours to Complete: 150

        II. Canals <u>Not</u> Receiving Water – Meeker-Driftwood, Bartley, Red Willow
            Locate Turnouts, laterals, wasteways, buried pipe, siphons etc.
            System Type Identification
            Field delineation – This year can be used to find out where GW
                <u>can</u> be applied, to answer the commingled question.
            Wells on same property
            GPS pivots

            Equipment: Laptops, GPS, Handheld data collectors
            Software: ArcView, Pendragon Forms, Microsoft Office
            Staff: 2
            Hours to Complete: 180

    b. Digitize Water Rights that were adjudicated in 1995 (above Swanson, including
                                          Frenchman Creek)
            Equipment: Laptops, GPS, Handheld data collectors
             Software: ArcView, Pendragon Forms, Microsoft Office
            Staff: 1
            Hours to Complete: 60

    c. Reorganize and properly name maps scanned for KS vs NE

            Equipment: Computer Workstation
            Software: Microsoft Office, Adobe Acrobat
            Staff: 1
            Hours to Complete: 80

d. Scan & Rectify District Maps above Harlan – Frenchman Cambridge,
    Frenchman Valley, H & RW

     Equipment: Computer Workstation, Anatech Scanner
     Software: ArcView, Microsoft Office, Adobe Acrobat, Preditor
     Staff: 1
     Hours to Complete: 120

e. Scan & Rectify Maps in Preparation of 2004 Adjudication

     Equipment: Computer Workstation, Anatech Scanner
     Software: ArcView, Microsoft Office, Adobe Acrobat, Preditor
     Staff: 1
     Hours to Complete: 160

Update SW data for Compact up to 2002

2. Ground Water Diversions and Irrigated Acreage

    a. Convert FSA fields and merge

        Equipment: Computer Workstation
        Software: ArcView
        Staff: 1
        Hours to Complete: 16

    b. Prepare Satellite Data for digitizing and editing

        Equipment: Computer Workstation, Anatech Scanner
        Software: ArcView, Microsoft Office, Adobe Acrobat, Preditor
        Staff: 1
        Hours to Complete: 160

    c. Verify and edit field boundaries

    d. Spot check work in field and gather field data for future remote sensing use

Field boundaries
Crop Info
Delivery Info

3. Database Design and Implementation

    a. PDA forms design and testing

        Equipment: Computer Workstation, PDA, GPS
        Software: ArcView, Pendragon Forms
        Staff: 1
        Hours to Complete: 20

    b. Access Table design and collaboration

Equipment: Computer Workstation
Software: ArcView, Microsoft Office
Staff: 2
Hours to Complete: 60

4. Non-Federal Reservoirs

    a. Edit Location of two Dam Inventory databases

        Equipment: Computer Workstation
        Software: ArcView, Microsoft Office
        Staff: 1
        Hours to Complete: 20

    b. Compare Dam Inventory to other sources of small water body locations

        Equipment: Computer Workstation
        Software: ArcView, Microsoft Office
        Staff: 1
        Hours to Complete: 40

    c. Investigate reservoirs that are not on the Inventory, but meet RRC criteria

        Equipment: Laptop, GPS
        Software: ArcView
        Staff: 2
        Hours to Complete: 80?

5. Coordinate with NRD Staff

    a. Data Collection for Meter reading

        I. Spring

        II. Fall

    b. Training on Database use and Requirements

    c. Develop custom programs to import data from NRD files