Achieving Irrigation Water Management on Acequia Systems

Overview: Acequias in New Mexico are usually historical community ditches that carry snow runoff, spring flows, or river water to distant fields. Most acequias irrigation systems convey irrigation water through earthen ditches, concrete lined ditches, pipes, or aqueducts. Some are of modern fabrication and others are decades or centuries old.

The acequia organization is administered by a governing board (i.e. ditch riders, majordomo or ditch commissioners), who regulate the water right holders and release water on a rotational or demand basis.

Water Rights: In New Mexico the right to use water from a stream belongs to the first user of the water, whether the user owns the land next to the water or not. Senior water right holders are typically Native Americans, acequias, and other agricultural water users. Junior water right holders are typically municipalities, industrial, residential, and recreational water users. Water is given to senior water right holders first due to a “grandfather clause” which gives preference to those who used water before the passing of new laws.

Basic Requirements:
- Source of Irrigation Water: Acequia or Canal, Well
- Usual Flow Available: Measured in CFS or AC Ft.
- Is Irrigation Water Available on Demand or Rotation?
- Conductivity of Irrigation Water:
- SAR (Sodium Absorption Ratio):
- Obtain Soil Inventory

Suggested Irrigation Practices for Most Acequias:
- Surface Irrigation
- Sprinkler Irrigation
- Drip, Micro Irrigation

Agronomy Tech Note 76 (http://www.nm.nrcs.usda.gov/technical/handbooks/iwm/nmiwm.html)
TYPICAL ACEQUIA LAYOUT
Community Ditch Assistance from NRCS

1. The Community Ditch group requests assistance from the NRCS Field Office (FO).
   - The group must be an organized Community Ditch as defined by state statutes. The CD must have its by-laws current and on file with Interstate Stream Commission (ISC).
   - The group submits an Assistance Request Form to the District Conservationist (DC) with appropriate signatures from the 3 commissioners.

2. Once the FO receives the request form, they can request assistance from the Acequia Engineer or start the project themselves.
   - The planning form (NM-E-251) needs to be completed and signed by AC, DC, AE, and the group.
   - The DC submits the planning forms to the NRCS Acequia Liaison (AL). The AL will send a copy of the forms to ISC and request an approval to start the design. The AL will assign a tracking number and request a drawing and file number from the State Office (SO). The AL informs the designer that the design can be started.

3. The design is completed and sent to the NRCS State Conservation Engineer (SCE) for approval. The SCE forwards the design to ISC for acceptance.
   - After the SCE receives the accepted design from the ISC, it is sent to the NRCS FO for distribution to the group.
   - The group is responsible for bid advertising and obtaining funding. NRCS can assist with the site showing, pre-construction meeting, and construction inspection (upon groups request) pending available personnel.