Powell-Clarks Fork Conservation District

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Board of Supervisors
Floyd Derry ~ Chairman
Ken Borcher ~ Vice-chairman
Duane Dearcorn ~ Secretary-Treasurer
Regan Smith ~ Member
Shane Smith ~ Member

District Staff
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USDA NRCS Staff
Dicksie Michael ~ District Conservationist

Long Range Plan
2006-2011

ACKNOWLEDGMENTS

The Powell-Clarks Fork Conservation District Supervisors appreciate the assistance given by:

Wyoming Association of Conservation Districts
Natural Resources Conservation Service
Park County Commissioners
Wyoming Department of Agriculture
Wyoming Department of Environmental Quality
Farm Service Agency
Agricultural Extension Service
Bureau of Land Management
Rural Economic and Community Development
Trout Unlimited
US Forest Service
Wyoming Game and Fish Commission

The Powell-Clarks Fork Conservation District Board would like to thank the past supervisors who have served on the District Board. Members who have served on the Powell-Clarks Fork Conservation District Board since its organization in 1954:

R.D. Sult – 1954
Dick Smith – 1954; 1959-78
Don O. Fraker – 1954-71
Lyle Gillette – 1954
Tesla Green – 1954-84
Clarence O. Reed – 1954-59
Leo Althoff – 1955-57
Forrest Martin, Sr. – 1955-58
F.W. Nortway – 1958-60
Frank E. Moore – 1960-62
Elgin Gillette – 1961-69
George Butters – 1963-1965
Robert F. Rockhold – 1966-71
R. Joseph Cyphers – 1970-72; 1974
Kenneth Good – 1972-73; 1975-76
John B Tolman – 1972-74
Duwane Sand – 1973
Orin Otto – 1975-78
Robert Bovee – 1975-78
Floyd Derry – 1977-present
Ral Hall – 1979-82
Max Baker – 1979-2002
Keith Jones – 1979-90
Ken Borcher – 1983-present
Mike Forman – 1985-1988
Steve Christiansen – 1989-2000
Lynn Borcher – 1991-97
Denny Hall – 1998-2001
Shannon Baker – 2001-03
Duane Dearcorn – 2001-present
Regan Smith – 2003-present
Shane Smith – 2003-present

FOREWARD

The Powell-Clarks Fork Conservation District was issued a Certificate of Organization on May 12, 1954 by the State of Wyoming.

A conservation district is a legal subdivision of the State of Wyoming, responsible for the conservation of soil, water, and the other natural resources within its boundaries. It is formed under the Wyoming Conservation District Law.

The Powell-Clarks Fork Conservation District is governed by five locally elected supervisors – three elected from the rural community, one elected as an urban resident, and on elected at-large. The Powell-Clarks Fork Conservation District Board of Supervisors went on the general election Ballot in 1974. These supervisors meet in open meetings 12-18 times a year to conduct the District's business. Each one serves their community and district voluntarily and without pay.

These individuals are responsible for determining workload priorities as well as preparing annual plans of work, annual reports, budgets and long-range programs. The objectives and goals contained in these plans are the basis for work carried out by the Supervisors and District staff.

Initially, conservation districts dealt almost exclusively with rural landusers. Today, however, the districts are called upon to provide information and assistance to a wide variety of natural resource users. Examples of this include mine reclamation plans, subdivision reviews, and soil survey information to various private, county and state agencies. The District participates in the Wind-Big Horn River Basin Planning, National Forest Management Plan and Bureau of Land Management Plan revisions, and is very active in local water quality issues and watershed planning.

Technical assistance is provided to the District by the USDA Natural Resources Conservation Service and other agencies. Financial assistance is provided by the State of Wyoming through appropriations for the state's conservation district's water quality work and other grant funding sources identified and obtained by the district.

BACKGROUND INFORMATION

The Powell-Clarks Fork Conservation District covers 536,625 acres in the north-central portion of Park County, Wyoming. Approximately 273,000 acres are privately owned. Approximately 80,000 acres of this is irrigated farmland, with the remaining acreage being used for native rangeland. About 263,000 acres is either State, BLM, or Bureau of Reclamation withdrawal land with the largest percentage of this acreage (215,000) being BLM land. The agricultural center within the district is Powell with a population of 6000.

Elevations vary between 4,000 and 5,000 feet. Most of the District is in the 5-9 inch precipitation zone. The growing season is 120+ days. Temperatures can range from over 100 degrees F in the summer to a (-)40 degrees F in the winter.

Water for the irrigated lands comes from the Shoshone River and the Clarksfork River. Lands irrigated from the Shoshone River were mostly developed by the Bureau of Reclamation in 1910. The irrigation systems from the Clarksfork River are all private developments. Some of these irrigation systems experience shortages in the early spring before snow pack starts to melt and in the late fall since there is no snow storage on the Clarksfork drainage.

GEOLOGY

The geologic features of the District today are the result of natural geologic processes occurring over an inconceivable length of time. The bedrock underlying the District today was formed from sediments deposited in an ancient saline sea that covered the District. These deposits were compressed into sandstone and shale. Later these relatively flat lying deposits were folded when the mountains and valley filling occurred. As the bedrock eroded, alluvial fans were built along the valleys and the present landscape began to appear.

The exposed bedrock of the District is divided into two major formations, both of which were formed on the tertiary age of geologic time. The Fort Union formation is the oldest, being about 65 million years old, and is exposed mainly in the northeast half of the District. This formation is composed of gray-brown shale and sandstone. The Willwood formation is about 55 million years old and is exposed mainly in the southwest portion of the District and is made up of reddish-gray shale and sandstone.

The remaining surface features of the District were created by the two major rivers within the District- the Clarks Fork of the Yellowstone River and the Shoshone River. These features consist of alluvial terraces and broad alluvial fans. The well-defined alluvial terraces occur ay several different levels. They range from just a few feet above existing river levels to several hundred feet above, as in the case of Polecat Bench. Much of the irrigated cropland in the District occurs on the alluvial terraces and fans.

Natural resources of the District relate directly to past and present geologic processes and features of the area. Large quantities of oil and gas are found in the District with the

principle production being from the Elk Basin oilfield in the north part of the District. large quantities of sand and gravel are available along the river terraces.

SOILS

The soils of the Powell-Clarks Fork Conservation District can be placed into two major groups: these are alluvial soils and residual soils.

The alluvial soils occur on nearly level to sloping alluvial fans and terraces. The principle uses for these soils are irrigated cropland and for housing and urban development. The alluvial soils are mainly very deep loams, sandy clay loams, sandy loams, and loams. The majority of these soils are well drained. However, a few soils have drainage and/or high water table problems and associated high salinity and alkalinity problems. Water erosion is a problem on soils left without a vegetative cover, especially on the sandier soils. Representative series are the Youngston, Lostwells, Stutzman, Bessler, Garland and Youngston moderately wet soils.

The residual soils are on gently sloping to very steep bedrock controlled uplands. Principle uses of these soils are rangeland and wildlife habitat. The residual soils are mainly shallow and moderately deep, well drained clay loams, sandy loams, and loams. The steep topography contributes to rapid runoff and severe erosion problems, especially if range condition deteriorates and vegetative cover becomes sparse.

Some areas of strongly alkaline soils occur, particularly in association with shale bedrock. Representative series are the Persayo, Greybull, Oceanet, and Worland soils. These soils often occur in association with interbedded shales and sandstone.

CROPLAND

There are approximately 80,000 acres of irrigated farmland in the District. Crops grown within the District are highly diversified. Row crops such as sugar beets, beans, and corn, in conjunction with furrow or sprinkler irrigated malting barley, are the most common cash crops produced. Alfalfa, both for hay and seed, is also an important crop along with wheat. Several producers in the District also grow many varieties of grass and legume seed.

Problems associated with irrigated farmland in the District are varied. There is acreage that is presently in row crop production that might be better in hay or permanent pasture. This is because the soil involved is not capable of producing sustained yields in this form of cropping system owing to problems such as steep slope, shallow depth to bedrock, excessive gravel, and wetness and salinity.

Irrigation water management is another conservation problem in the District. Part of this problem has been corrected in recent years the installation of engineering practices such as land leveling, concrete ditches, buried pipelines, gated pipe, and subsurface drains.

Soil salinity and alkalinity, another conservation problem facing farmers in the District, has also been somewhat alleviated with the installation of subsurface drains, in conjunction with using the proper length of irrigation runs and application of water. The District has, and will continue, to work closely with cooperators concerning these and other conservation problems they may have. This problem is also being addressed by the irrigation districts with their ongoing rehabilitation programs.

In the past few years, water quality has become a high priority item. The District believes that a voluntary approach, supported and implemented by local people, is imperative if any water quality program is going to work. The District is coordinating this effort by working with local cooperators and stakeholders on watershed monitoring and plans as needed.

RANGELAND

Rangeland is commonly thought of as land which is best suited for the production of native forage for the grazing of domestic livestock and big game animals.

Although much of the rangeland in this District is controlled by Federal agencies, rangeland practices are an still important part of the overall program.

The present range condition is the result of past use and management. The future condition of each range is up to the operator. For this reason, the District is interested in working with cooperators to better their understanding of range management and methods of improving range condition.

RECREATION AND WILDLIFE

There has been an increased demand for all forms of recreation in the past years, and all indications point towards a continued increase. Hunting and fishing are a big part of this increasing demand. The diversity of crops, natural vegetation, and land formations in the District offer a suitable habitat for upland game birds, waterfowl, small and big game animals. In the past few years the pheasant population has been increasing. Chukkar and Hungarian partridge inhabit the rocky breaks along the Clarks Fork and Shoshone Rivers. Deer, antelope, and sage grouse are plentiful throughout the District. Good waterfowl hunting and fishing is also available throughout the District's two major drainages. Continued improvement of recreation facilities and wildlife habitat is an ongoing goal of the Powell-Clarks Fork Conservation District. Full consideration is always given to wildlife in all conservation planning and in the installation of conservation practices.

OBJECTIVES

The Powell-Clarks Fork Conservation District has identified five objectives.

I. Maintain and improve the natural resource base of the Powell-Clarks Fork Conservation District
II. Improve on-farm irrigation systems
III. Continue to improve the existing farmland
IV. Provide education and informational programs to the people of the District
V. Increase district supervisors' awareness

Objective: Maintain and improve the natural resource base of the Powell-Clarks Fork Conservation District.

Activities include:

- Coordinate the Bitter Creek Watershed Project.
- Participate in Wind/BigHorn River Basin Planning group.
- Subdivision reviews - send comments and recommendations to Park County Planning and Zoning Commission.
- Attend interagency meetings to represent stakeholders, provide expertise, improve relations and learn new techniques.
- Obtain updated resource base maps of the District as they become available.
- Continue efforts to obtain funding for Powell-Clarks Fork Conservation District
- programs and to explore benefits of the mill levy for the voters of the Powell-Clarks Fork Conservation District.

Objective: Improve on-farm irrigation systems to improve water quality in the Powell-Clarks Fork Conservation District.

Activities include

- Continue to stress the importance of irrigation water management in new and revised conservation plans.
- Continue to stress the importance of irrigation water management on follow-up contacts with cooperators.
- Continue to assist irrigation districts as requested to improve irrigation delivery systems to improve water quality.
- Give high priority to requests for assistance for water conservation, erosion control, and water quality.
- Give special emphasis to water quality in conservation planning activities using

pesticide and nutrient management worksheets.

- Continue to identify potential priority areas for possible EQIP and WHIP areas.
- Continue to support the Alkali Creek Priority Area and implementation of monitoring plan.

Objective: Continue to improve and protect the existing farmland

Activities include:

- Continue to work with the local workgroup to insure that sound conservation practices remain as a high priority item.
- Continue to present sound conservation alternatives to cooperators in conservation
- planning activities.
- Encourage cooperators to participate in the various programs that are available.
- Assist the Natural Resources Conservation Service in the implementation and follow-up on FSA plans.

Objective: Provide educational and informational programs to the people of the district.

Activities include:

- Talks to civic groups.
- District newletter and mailings.
- Publications in the newspaper.
- Radio spots.
- Soil Stewardship Week.
- Snow Survey information to newspaper and radio.
- Publicize public meetings.
- Tour of conservation measures.
- Tour of Bridger Plant Materials Center.
- Support the 4-H Camp and the Range Camp.
- Provide updated software for operation of the district.
- Continue to provide the leadership for the locally-led effort.
- Continue to provide leadership and participate in the local work group meetings.