

***POPO AGIE
CONSERVATION
DISTRICT***

***Long Range Plan
2008-2012***

MISSION STATEMENT

To plan for, protect, manage, and utilize the natural resources within the boundaries of the Popo Agie Conservation District through application of sound ecological, financial, and cooperative management principles that will sustain the quality of life and the natural resources for future generations to enjoy.

Overview

The following Long Range Plan was developed to guide the Popo Agie Conservation District's natural resource conservation programs over the next five years.

History

The Conservation District concept began in the Dust Bowl Era of the 1930's in response to severe drought and drastic soil loss. The federal government created the USDA Soil Conservation Service, now the Natural Resource Conservation Service (NRCS), under the Soil Conservation Act of 1935. This agency was charged with administration of programs and practices to address soil erosion concerns.

In February of 1937 the President urged all states to pass legislation authorizing locally led soil conservation programs. This need initiated the formation of conservation districts across the United States with the first passage of the Soil Conservation District Law in Arkansas in March, 1937. The Wyoming State Legislature followed suit by passing the enabling legislation for the formation of local conservation districts in March of 1941.

The Popo Agie Conservation District was organized on May 20, 1942. There have been seven additions to the original District boundaries since its formation, bringing the total acreage within the Popo Agie Conservation District boundaries to 2,470,710 acres.

Authority

The Popo Agie Conservation District (PACD), pursuant to W.S. 11-16-122(iv) and (xvi) of the Wyoming Conservation Districts Law, is authorized to develop plans for the Popo Agie Conservation District and to file said plans in the office of the Fremont County Clerk.

PACD is a local subdivision of the state as defined and established by the Wyoming State Statutes at Title 11, Chapter 16, et seq., entitled "Wyoming Conservation Districts Law."

The people residing within the PACD boundaries elect the five member Board of Supervisors of the Popo Agie Conservation District by popular vote during the general election. The elected members represent both the rural and urban populations within the District. The Board of Supervisors are the only locally elected board charged with the responsibility of representing local people on natural resource issues. A conservation district supervisor serves the community voluntarily.

Popo Agie Conservation District is supported by a one mill levy, and by grants, retail program sales, and cooperative agreements. The one mill levy was first approved in 1988 and has been approved every four years thereafter. In 2000, a petition recall mill levy was approved by the voters which allows PACD to maintain their mill funding unless 10% of the voters request to rescind the petition recall.

Legislative Declarations

The actions and programs endorsed by the PACD are dictated by the legislative declarations and policies of the Wyoming State Legislature.

The PACD is charged with the following:

- (1) AS REPRINTED FROM: W.S.S. 11-16-103
Legislative Declarations and Policy
 - (a) It is hereby declared that the farm and grazing lands of Wyoming are among the basic assets of the state; that improper land use practices cause and contribute to serious erosion of these lands by wind and water; that among the consequences which would result from such conditions are the deterioration of soil and its fertility and the silting and sedimentation of stream channels, reservoirs, dams and ditches; that to conserve the soil, and soil and water resources, and prevent and control soil erosion, it is necessary that land use practices contributing to soil erosion be discouraged and that appropriate soil conserving land use practices be adopted.
 - (b) It is hereby declared to be the policy of the legislature to provide for the conservation of the soil, and soil and water resources of this state, and for the control and prevention of soil erosion and for flood prevention for the conservation, development, utilization, and disposal of water, and hereby to stabilize ranching and farming operations, to preserve natural resources, protect the tax base, control floods, prevent impairment of dams and reservoirs, preserve wildlife, protect public lands, and protect and promote the health, safety and general welfare of the people of this state.
- (2) The above being the charge and direction of the Wyoming Legislature for all Conservation Districts within the State of Wyoming. The Popo Agie Conservation District Board of Supervisors, are the elected body and local leadership for resource conservation within the jurisdiction of the PACD boundaries.

DISTRICT DESCRIPTION

Location

The Popo Agie Conservation District is one of three conservation districts within Fremont County, and is located within the southern portion. The Dubois-Crowheart Conservation District borders the PACD to the northwest, while the Lower Wind River Conservation District lies to the northeast.

Physical Setting

The Popo Agie Conservation District lies entirely within the Wind River Basin of central Wyoming. The western border of the PACD is the Wind River Mountain Range, an extension of the Middle Rocky Mountain province. This distinguished mountain range gives way to rolling to broken grass-covered foothills and the extensive rangelands of the Wind River Basin.

Elevation

Elevations range from over 13,200 feet above sea level at Wind River Peak along the continental divide to below 5,000 feet in certain basin areas.

Watersheds

The Popo Agie Conservation District encompasses three hydrologic units, or drainage basins, within its borders. The first of these is the Popo Agie Watershed consisting of the Little, Middle, and North Forks of the Popo Agie River. Major tributaries and several smaller creeks and draws feed into the three branches of the Popo Agie River. The second hydrologic unit within PACD boundaries is a portion of the Little Wind River drainage including Beaver Creek. The third hydrologic unit is the Sweetwater, encompassing portions of the Sweetwater River and its tributaries within Popo Agie Conservation District care.

Municipalities

The City of Lander is the largest municipality in the Popo Agie Conservation District, and is also the Fremont County seat. Other towns include Atlantic City, Fort Washakie, Hudson, Jeffrey City, and South Pass City.

Climate

Climate within the Popo Agie Conservation District can vary widely depending on elevation. Generally the mountain and foothill areas receive more snow during winter months and tend to receive more frequent rainfall in summer. The Wind River Mountain Range obstructs moisture arriving from the west, leaving much of the low-lying basin area in a rain shadow creating a semi-arid climate regime. On average, the district receives 11-13 inches of annual precipitation, most of which arrives during October and spring months, although snow has been recorded on occasion in summer.

Sub-zero temperatures are not uncommon during winter, and inversions are frequent in the Lander Valley. The average summer temperature is 82 degrees Fahrenheit, with temperatures recorded into the 100's. The normal daily range in summer temperature is about 30 degrees. The average growing season is 126 days, although freezing temperatures have been known to occur in July and August.

Land Use

Approximately 55 percent of the district is rangeland, which is used for a variety of production activities, including agriculture. Many of these agricultural operations supplement range forage with irrigated hay and pasture. Approximately 60,000 acres within the District are irrigated hay or pasture lands. Cattle, sheep, and horses graze both the range and irrigated pasture. The area also supports many deer, elk, pronghorn antelope, and some moose and bighorn sheep.

Some timber is harvested from the national forest lands. Gravel is produced from a number of gravel pits commonly associated with glaciated areas in the district. Oil is also mined from the Dallas, Derby, Lander-Hudson, Winkleman Dome, and Beaver Creek fields, and a few isolated wells. The Beaver Creek field is also a producer of natural gas. Bentonite, Coal, Gypsum, Gold, Iron ore, Taconite, and Uranium were also mined at various times, but are not currently in production.

Land Ownership in the Popo Agie Conservation District is categorized by Federal, State, Private, and Other. The portion of the District under federal jurisdiction, including Bureau of Land Management, U.S.D.A. Forest Service, Bureau of Indian Affairs, and the Bureau of Reclamation accounts for roughly sixty percent of the total land area. State lands encompass twelve percent of the land area within PACD boundaries including Wyoming Game and Fish properties, public schools, state parks, cultural resources, historic sites, and state forestry. Private land ownership accounts for about twenty-seven percent of the total lands, while Other, including riparian areas, wetlands, and otherwise unclassified land, accounts for less than one percent.

NATURAL RESOURCE DESCRIPTION

Vegetation

The higher elevations are dominated by coniferous species including lodgepole pine, subalpine, douglas fir, and engleman spruce. Large aspen stands are common at these elevations. Major grass species include bluebunch and western wheatgrass, Idaho fescue, junegrass, several of the bluegrass species, and various needle grasses, bromes, and muhlenbergia species. Wyoming sagebrush and antelope bitterbrush are two of the most dominant shrubs.

Basin areas are generally void of the large tree overstories typical in the mountains. Exceptions are planted trees around structures and in shelterbelts. Plains cottonwood, golden willow, and Russian olive are among the more common species. Major grasses include western and thickspike wheatgrass, blue grama, Indian ricegrass, sandreed, and needle and thread. Big and silver sagebrush, fourwing saltbush, and rabbitbrush are common shrubs.

There is a wide variety of riparian habitat found in the Popo Agie Conservation District. Cottonwood and aspen are common overstory species. Willow, water birch, chokecherry, gooseberry, rose, and red-osier dogwood are common shrubs. A number of grasses and grass-like plants occur in these riparian areas including several species of sedges, rushes, cattails, and reed grasses.

Noxious weeds occur throughout the district. Thistle species, leafy spurge, and Russian knapweed are the most widespread.

Sensitive Habitats

Wetland and riparian landscapes occur in saturated soils along streams and waterways in the Popo Agie Conservation District. Such habitat is critical to the lifecycles of native animals in Wyoming (Knight, 1994). This productive habitat serves as travel corridors for many animal species, both as seasonal migratory stops and permanent home territories. These densely vegetated zones provide important thermal cover to protect species from temperature extremes. These particular habitats also help to collect and filter surface water and in effect purify, redistribute, and protect the district's water.

In addition to wetlands and riparian areas, there are other sensitive areas where threatened and endangered species are known to exist including Red Canyon and Beaver Divide among them.

Wildlife

Wildlife is abundant within the Popo Agie Conservation District and is indeed one of the many amenities of the area. Wildlife habitat types include open water and wetlands, grasslands, shrublands, riparian areas, and forests. The following is a brief list of the District's commonly observed resident bird and mammal species.

Mammals

Badger
Big Brown Bat
Bighorn Sheep
Bobcat
Bushy Tailed Woodrat
Coyote
Deer Mouse
Deer, Mule & Whitetail
Desert Cottontail
Elk
Fox
Least Chipmunk
Little Brown Myotis
Marten
Mink
Moose
Mountain Lion
Pronghorn Antelope
Red Fox
Red Squirrel
Striped Skunk
Western Harvest Mouse
Western Small-Footed Myotis
Whitetail Jackrabbit
Whitetail Prairie Dog
Wyoming Ground Squirrel
Yellow Bellied Marmot

Birds

American Avocet
American Goldfinch
American Kestrel
Belted Kingfisher
Black-billed Magpie
Black-capped Chickadee
Canada Goose
Cassin's Finch
Chukar
Common Merganser
Dark-eyed Junco
Downy Woodpecker
Golden Eagle
Great Horned Owl
Green Winged Teal
Killdeer
Mallard
Mountain Chickadee
Northern Flicker
Northern Harrier
Northern Pintail
Pine Siskin
Red Tailed Hawk
Short-eared Owl
Song Sparrow
Western Meadowlark
Yellow Warbler

Rare and Endangered Species

Currently the Popo Agie Conservation District is home to two endangered plant species; Barneby's Clover located in Red Canyon, and the Desert Yellowhead in Government Meadows near Jeffrey City.

Portions of the district also house threatened or endangered birds including the Peregrine Falcon, Bald Eagle, and Golden Eagle. The Mountain Plover is also present and is currently a candidate for listing under the Endangered Species Act. According to the Wyoming Natural Diversity Database through the University of Wyoming there are other sensitive animal, bird, and plant species within the district, yet these species are not officially listed at this time.

Water Quality and Water Quantity

Surface water is one of the primary sources of water for consumptive uses within the Popo Agie Conservation District . The municipal water supply for the City of Lander is drawn from the Middle Fork of the Popo Agie River. A majority of irrigation activities are also made possible through the availability of surface water in southern Fremont County.

In 2005, Popo Agie Conservation District adopted the finalized plan for the Popo Agie Watershed. The plan was a community wide collaborative effort to describe the concerns and opportunities within the watershed. The plan categorizes the concerns within the watershed into four major themes: water quality, water quantity, riparian and upland health. The watershed plan document will serve as a handbook to guide the district's natural resource related projects in the Popo Agie Watershed.

Soils

Soil is one of our most basic natural resources. It determines not only what our landscape looks like, but also our ability to adapt and transform that landscape. However, there are limitations and hazards inherent to many soils types that occur throughout the district. Some soils are seasonably wet and may retain moisture and as a result can be unsuitable for construction. Sites with higher water tables can also be unsuitable for underground utilities or basements. These soil types can often be found in low-lying areas and along waterways.

Other soils are dominated by shallow bedrock or rock outcroppings that may be unsuitable for foundations and roadbeds. These soil types can often be found along canyon rims, benches, mountain foothills and the like. Impervious soils required for some sanitary facilities need detailed evaluations to prevent surface and groundwater contamination.

The district also contains highly erosive soils due to the sedimentary nature of the background geology in the Wind River Basin. Erosive soils, if disturbed by human activities, may exacerbate potential air and water pollution concerns.

POLICIES & OBJECTIVES OF THE POPO AGIE CONSERVATION DISTRICT

Administration

PACD is committed to providing fiscal and administrative accountability.

- Hold monthly Board of Supervisor meetings and encourage the public to attend.
- Comply with all local, state, and federal acts and laws that have jurisdiction.
- Complete all required local, state, and federal reports.
- Pursue additional sources of funding for resource conservation projects and programs.

Community Enhancement Program

PACD is committed to conserve or improve natural resources, the environment, and natural beauty of our community through conservation practices.

- Work directly with agencies and organizations on the development of outdoor recreation areas.
- Provide cost-share incentive for community enhancement projects.

Coordinated Resource Management

PACD is committed to successful management of natural resources by facilitating, coordinating, and helping to implement cooperative efforts.

- Coordinate activities with other natural resource interests (agencies, educational institutions, individuals, etc.) to maximize the effectiveness and efficiency of area projects and programs.
- Promote the Coordinated Resource Management (CRM) process through collaborative efforts that stress commitment, communication, and cooperation.

Education Program

PACD is committed to providing natural resource conservation education opportunities to Fremont County residents of all ages that encourage awareness of conservation practices.

- The district will promote natural resource education programs within the local schools.
- The district will provide educational opportunities through seminars, workshops, tours, and hands-on experiences.

Grass Reclamation Program

PACD is committed to provide technical expertise and incentive for small acreage landowners to reclaim disturbed range and pastureland sites.

- Provide technical expertise for grass reclamation.
- Provide rental equipment to small acreage land owners for grass reclamation.

Information Program

PACD is committed to maintain, expand, & improve the district's information program

- The District will provide conservation information to the public utilizing the web site, newsletters, newsprint, radio, brochures, and displays at local events.
- Market all conservation programs to the public utilizing a variety of media.
- Inform policy makers of local issues, concerns, and opportunities.

Irrigation Water Management Program

The district is dedicated to increasing the efficiency of irrigation water systems while reducing soil erosion, conserving water, and improving water quality.

- Offer cost-share assistance to landowners through the District's annual Irrigation Water Management Program.
- Provide technical assistance for irrigation management practices and improvement of irrigation systems.

Land Use Planning

PACD promotes land uses that are compatible with the natural resources of a given area (soils, water, vegetation, wildlife, etc.).

- The district defends the protection of prime agricultural land and open spaces.
- Provide input to City/County Planning Commission on environmental impacts of all new subdivisions.

Living Snow Fence Program

The District is committed to coordinate living snow fence planning, installation, and maintenance to provide future snow control for the state highways.

- Maintain existing living snow fences.
- Plan, coordinate, and install new living snow fences.
- Identify future living snow fences projects.

Public Lands

PACD supports proper conservation measures and multiple use activities on public lands.

- The district will develop a Memorandum of Understanding (MOU) with federal agencies to assist with federal land management planning and decision-making.

Rangeland Program

PACD is committed to encourage landowners to manage rangelands in a manner that maintains & improves range productivity.

- Promote productive and sustainable range management through incorporation of Best Management Practices (BMPs), proven grazing principles, and improved grazing practices.
- Assist landowners in developing rangeland management plans.
- Offer cost-share assistance to landowners and partnering entities through the District's annual Rangeland Program.
- Work with agriculture producers and agencies to facilitate alternative and innovative methods for rangeland improvements.

Special Projects

PACD will identify emerging conservation issues to develop and implement appropriate strategies.

- Promote opportunities for projects that encourage the use of alternative energy sources in conservation practices.
- Investigate opportunities for carbon sequestration and trading.

Tree Program

PACD is committed to the establishment of tree plantings for natural resource enhancement.

- Provide technical assistance in the establishment, maintenance, and health of tree plantings in the Popo Agie Conservation District.
- The district will assist with the design of tree planting projects to protect livestock, enhance energy conservation, provide wind protection for homes and other structures, reduce soil erosion, improve water quality, create buffers, and increase wildlife habitat within the Popo Agie Conservation District.
- Promote seedling tree sales for conservation plantings.
- Partner with area businesses, municipalities, schools, and organizations to encourage tree plantings.
- Encourage installation of drip irrigation systems for water conservation and efficient water delivery to plantings.

Watershed Plan Implementation

PACD will provide the leadership and tools to implement a successful watershed plan through education, voluntary participation & incentive driven opportunities.

- The district will administer programs in order to implement the plan.
- The district will maintain partnerships to facilitate the watershed plan and coordinate those efforts.
- Implement the tasks identified in the Popo Agie Watershed Plan.
- Search for and secure funding to address the tasks identified in the Watershed Plan
- Assist landowners with formation and administration of watershed improvement districts.
- Participate and provide local leadership for the Lander Flood Mitigation planning process.
- Utilize Section 319 Clean Water Act grant monies for the voluntary rehabilitation of septic systems for the Middle Fork of the Popo Agie watershed to address the 303(d) bacterial impairment. Rehabilitate 40 septic systems by June 30, 2009.
- Annually monitor E. coli levels in the Middle Fork of the Popo Agie River during the summer recreation season (June – September).
- Publish an annual report to summarize water quality data, and submit report to WDEQ.

Water Quality

PACD will strive to reduce point and non-point source pollutants and maintain healthy watersheds while improving agriculture, fisheries, and wildlife habitat.

- Promote Best Management Practices (BMPs) designed to reduce point and non-point source pollution, and maximize streambank stability, habitat restoration and riparian health.
- The district will assist landowners in addressing nutrient management and livestock waste issues by providing technical assistance and educational opportunities.

Water Quantity

PACD encourages increased productivity, development, and conservation of available water resource inventories.

- Promote water conservation through education and implementation of best management practices.
- Provide technical assistance to urban and rural residents in developing low water use landscapes and irrigation systems.
- The district supports the investigation and development of water storage opportunities for both agricultural and municipal uses.

Wildlife & Fisheries Program

PACD is committed to conserve and enhance wildlife and fisheries habitat within the Popo Agie Conservation District.

- Maintain cooperative efforts with wildlife agencies.
- Promote the critical role agricultural producers have in providing habitat to wildlife within the Popo Agie Conservation District.
- Encourage conservation of key wildlife habitat areas.
- The district asserts that development should be directed away from critical wildlife areas and movement corridors and be planned in a manner that minimizes disturbances of these areas.
- The district supports creating wildlife habitat improvement projects.
- Promote in-stream improvements for fisheries.
- Promote projects that improve the quality of riparian and upland habitat that support wildlife.
- Encourage natural stream channel design concepts as an alternative to traditional design when appropriate.