

**San Juan
Resource Conservation and Development (RC&D) Area Plan**

Prepared by the San Juan RC&D Council,
acting for the following sponsors:

Archuleta County
Dolores County
La Plata County
Montezuma County
San Juan County
Town of Ignacio
Town of Rico

Town of Bayfield
City of Cortez
Town of Dolores
Town of Dove Creek
City of Durango
Town of Mancos
Town of Silverton

Dolores Conservation District
Dove Creek Conservation District
La Plata Conservation District
Mancos Conservation District
Pine River Conservation District
San Juan Conservation District
Town of Pagosa Springs

Dolores Water Conservancy District
La Plata Water Conservancy District
Montezuma Valley Irrigation Company
Southern Ute Indian Tribe
Ute Mountain Ute Indian Tribe



San Juan Resource Conservation & Development
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Date:

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Assisted by:

U.S. Department of Agriculture
and cooperating federal, state, and local agencies.

Prepared under authority
of the
Agriculture and Food Act of 1981 (PL 97-98)

U.S. Department of Agriculture
Natural Resources Conservation Service

VISION STATEMENT

The San Juan RC&D area vision is:

AREA CITIZENS COOPERATING TO ACHIEVE A HEALTHY,
DIVERSE, SUSTAINABLE ECONOMY AND ENVIRONMENT

MISSION STATEMENT

The mission of the San Juan RC&D area is:

TO PROVIDE QUALITY SERVICE AND TECHNICAL EXPERTISE
TO ALL RESIDENTS OF THE SAN JUAN RC&D AREA IN THE
USE, PROTECTION, AND IMPROVEMENT OF THE NATURAL,
CULTURAL, HISTORIC, AND ECONOMIC RESOURCES OF THE
AREA, IN A MANNER CONSISTENT WITH ALL APPLICABLE
LAWS AND LOCAL CUSTOMS.

STRATEGIC OBJECTIVES

The San Juan RC&D area strategic objectives are:

1. TO IMPROVE CUSTOMER FOCUS AND SERVICE
2. TO ATTRACT, RETAIN, AND DEVELOP HIGH QUALITY
VOLUNTEERS
3. TO IDENTIFY AND IMPLEMENT CRITICAL INTERNAL
AND EXTERNAL INFORMATION SYSTEMS
4. TO IDENTIFY AND IMPLEMENT METHODS TO OBTAIN
PROJECTS
5. TO IMPROVE ACCESS TO OUTSIDE CAPITAL FOR
PROJECT IMPLEMENTATION

Location and Setting

San Juan Resource Conservation and Development Area is located in the southwest corner of Colorado, geographically known as the "San Juan Basin". The San Juan RC&D area includes Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties, and small portions of Hinsdale, Mineral, and San Miguel Counties, and a small portion in New Mexico consisting of part of the Ute Mountain Ute Indian Reservation. The area comprises a total of 4,845,171 acres of which 1,491,531 acres (31%) are privately owned. The remaining acreage consists of 3,283,659 federal (68%), 41,489 (0.9%) state, and 28,492 (0.1%) municipal.

The San Juan Basin is unique from an archaeological standpoint. The ruins of ancient civilizations establish the area as an early-day population center. It is believed that area inhabitants reached the highest stage of development of any of the Pueblo people.

The San Juan Basin is home to two Indian Tribes, the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe. There are 1,237 enrolled tribal members in the Southern Ute Indian Tribe, of which approximately 1,044 live in the San Juan Basin. There are 1,786 enrolled Ute Mountain Ute Tribal members of which approximately 1,062 live in the San Juan Basin.

The San Juan Basin is divided into three broad climate zones -- mountain, foothill-mesa, and semi-arid region. Elevation ranges from about 6,000 to 14,000 feet mean sea level. Precipitation ranges from under 12 inches per year in the semi-arid region to 60 or more inches per year in the mountains. Winter snow accounts for half or more of the annual precipitation. Water is one of the most important resources in the area.

There are several major irrigation systems installed in the basin and a major water storage and irrigation project (Animas-La Plata) scheduled for construction. The Animas-La Plata project is being built to satisfy Indian water rights claims.

The 2000 census population of the San Juan RC&D area is 78,947 with a breakdown of 4,908 American Indian, 299 Asian/Pacific Islander, 183 Black, 8,605 White/Hispanic, 64,791 White/non-Hispanic, and 161 other/non-Hispanic. Over half resided in La Plata County, followed by Montezuma, Archuleta, Dolores, and San Juan Counties. Estimate of per capita personal income for the San Juan RC&D area, by county, ranges from \$17,884 to \$27,527. Services, Government, and Construction account for 63% of income in the area with Agribusiness accounting for approximately 1% of income. Dolores County is the only county in the San Juan RC&D area that has consistently shown positive net agricultural income since 1980. A breakdown of these figures reflects the dependency of the San Juan RC&D area on tourism as a primary economic force.

Needs and Opportunities

The San Juan Resource Conservation and Development Council's immediate concerns are in the area of economic development, availability of resource data for the area, communications capability within the area, transportation system basin-wide, including state, county and township roads, rail and air transportation, and the environment (soil and water).

San Juan Basin is effectively separated from the rest of Colorado by mountain ranges and is generally considered to be part of the Four-Corners geographic area which is made up of southwest Colorado-northwest New Mexico-northeast Arizona-southeast Utah. The states in the Four Corners area have many

similar concerns and each probably identify more closely with the Four Corners area that they do with their individual states.

There are at least four groups in the San Juan RC&D area that have regional concerns as their operative mission statement; the San Juan Resource Conservation and Development Council (RC&D), the San Juan Forum, the Region 9 Economic Development District, and the Fort Lewis College Office of Community Services. Each of these groups has a different thrust to serving the area. The San Juan Forum through providing communication and coordination between the four corner states regarding activities and development, the Region 9 Economic Development District primarily through revolving loans and developing a Comprehensive Economic Development Strategy, the San Juan Resource Conservation and Development Council through addressing the natural resource base in the development and enhancement of activities in the San Juan Basin, and the Fort Lewis College Office of Community Services which assists communities in strategic planning. In addition, the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe both have broad regional planning concerns relating to the economic and structural development of their resources both on and off their respective reservation lands. Based on stated interest and regional concerns the logical entity to address the basin-wide natural and cultural resource database needs is the San Juan RC&D.

Input for the area plan was obtained from San Juan RC&D Council members, partner agencies and organizations, community input, the Region 9 Economic Development District Comprehensive Economic Development Strategy (CEDS) publication, and the Region 9 Economic Development District Community Development Action Plans (CDAP) developed by each community. The CDAP for each community was developed through a series of community and town meetings held throughout the San Juan Basin over the last three years, and was exhaustive in allowing community input and comment. The CDAP's are signed off by the county commissioners of each county and the mayors of the respective cities and towns with the goal of coordinating the assistance of local, state, and federal agencies, and insuring that this assistance meets the needs of the communities. The CDAP's for the area are current as of 2003.

Economic Development

Economic Development is an ongoing activity in the San Juan Basin. Economic development must be a coordinated effort between all units of government, varied businesses and community groups, and all members of Commerce.

The economy in the San Juan Basin is largely tourism based. This takes the form of winter and summer recreation activities (skiing, camping, sightseeing, fishing and hunting) with summer recreation making the greater economic impact. The apparent immediate need is to expand the opportunities for winter income for local businesses. Summer tourism provides for considerable business activity throughout most of the San Juan Basin. The period coinciding with the start of the school year and continuing until the end of the school year sees a dramatic drop in the number of visitors to the area. This translates to many restaurants laying off 50% or more of their workers, many small shops closing entirely for the winter, and reduced operating hours for many of the remaining businesses.

Some of the issues to address when planning economic development approaches are; promoting the area to attract visitors during the traditional off peak periods, reducing the cost of doing business so as to remain competitive, affordable housing for existing and new employees, keeping existing businesses healthy, efficient and economical transportation for commerce, and the communications capability available in the basin.

To create positive economic development we need to create an external demand for goods and services. This means bringing in outside money, not just re-shuffling existing money. A wide range of types and sizes of industries and firms bring about long-term economic health. If the axiom of 80% of new jobs come from existing firms is correct then this provides some direction for our efforts in the future.

Communications Capability

The location of the San Juan Basin presents ground transportation problems for commerce. These problems arise from the mountain passes that vehicles must navigate to enter or exit the San Juan Basin from the north and east, and the distance to a population center to the south and west. The pass to the east is Wolf Creek Pass (the Continental Divide) which is approximately 11,600 feet in elevation (msl) with 6% to 9% inclines for stretches of 7-10 miles on both sides of the pass. This pass is treacherous in the winter and snowfall often brings vehicular traffic to a standstill for 1-2 days at a time. The pass to the north is Red Mountain Pass and is a very treacherous pass at certain times during the winter. This pass is 11,000 + feet in elevation (msl) and often closed or restricted to traffic for short periods throughout the winter months.

Due to inherent limitations to surface transportation to the San Juan Basin, the opportunity to expand Telecommuting becomes more attractive. Telecommuting relies on state of the art communication services being available to the area. Industries need to be identified that are potential users of telecommuting. The communication services such as fiber optic networks, satellite accessibility, etc. need to be expanded and promoted. Telecommuting may be a possibility in some of the more remote towns, physically speaking, with a central location in one of the larger towns that support a wider base of business activities. Tax and revenue benefits to companies need to be explored, and where needed, feasible, and desired, adjusted to be competitive.

Transportation System Basin-Wide

Many of the roads throughout the San Juan Basin were originally constructed as farm to market roads and logging roads. There is attention brought to bear on the condition of the roads as a result of oil and gas drilling, needs of backcountry tourists, and demands of residents who build and develop residential areas, in addition to the constant demands for maintenance. There are several entities currently doing road construction and maintenance. The entities include private individuals, City and Town governments, County

governments, Southern Ute Indian Tribe, Ute Mountain Ute Indian Tribe, Bureau of Land Management, and the US Forest Service.

Gravel and dirt roads are a contributor, to some extent, of air pollution. In the Pagosa Springs area there is an air inversion which forms a blanket effect to keep the gravel, dust and vehicle pollutants from dissipating. An adequate infrastructure of roads needs to be in place to attract and serve the hoped for economic development activity and subsequent residents.

Studies of air service and freight rail service to the Basin should be expanded.

Water

Water issues, both quantity and quality, are being widely discussed in the San Juan Basin.

Agriculture in the San Juan Basin relies heavily on irrigation water. Several large irrigation reservoirs have been constructed during the last seventy years with sophisticated delivery systems to get the storage water to the user. Many miles of these delivery systems are old and in need of maintenance. There are opinions that the irrigation canals could be better located. Most of the delivery systems are open ditches with some wooden and concrete flumes and occasional steel or concrete siphons. There is increasing activity by farmers and ranchers to take advantage of gravity pressure of some of this water by installing pipelines to run pressurized irrigation systems. Utilizing available gravity pressure reduces, and in some cases eliminates, the need for supplemental power from electric motors. With water issues such as the Prior Appropriation Doctrine, the ability to buy and sell water rights, and the increasing demand for water for both on and off farm uses, a principal concern becomes one of efficiently transporting and utilizing the irrigation water so as to reduce overall demand on the reservoirs. An accurate inventory of irrigated acres, wells, and delivery systems along with geographic location is needed by irrigation districts to properly manage their operations.

Groundwater has taken the spotlight due to coal bed methane gas drilling in the area. There are continuing studies underway in La Plata County to determine effects of gas well drilling on underground potable water supplies. This is not an issue in Montezuma County as there are few domestic wells and the county several years ago installed municipal water systems throughout most of the county and the county is presently served by several private and special district rural water systems.

Many older municipal water supplies, along with their distribution systems need to be upgraded. This is due to both degradation of the system from aging and the increased demands placed on the systems from increased population. There are small-unincorporated communities that lack a central water system.

Adequate water for farm and ranch irrigation is imperative to sustain and advance the agriculture economy of Southwest Colorado. Clean water in sufficient quantities is required to attract businesses and potential residents to the area. A major attraction of Southwest Colorado is the environment. Clean and plentiful water must be a leading component.

Soil

A major portion of the private land in the area is used for livestock production. There is some dryland farming and some irrigated crops are grown. The approximate total acreage of cultivated cropland in the basin is 143,000 acres. Of this acreage of cultivated cropland, approximately 27% are currently enrolled in the Conservation Reserve Program (CRP). A major concern of the RC&D Council and the Conservation Districts in the San Juan Basin is what will the land use be on these CRP acres after the CRP contracts expire. If these CRP acres were to revert to cultivated cropland under the prior farming practices we could expect an increase in gross soil erosion of 866,000 tons/ year (445 acre feet). The effect of this soil loss is degradation of the soil productivity for crop production and the negative impact of this sediment filling our ponds, irrigation ditches and rivers. Effective alternatives available to producers to keep the soil loss to a

basic level or below include keeping the land in permanent vegetative cover, implementing conservation tillage practices if cropped, contour farming, and reducing land slope lengths through the use of terraces. If the land is retained in permanent vegetative cover and used for pasture there will be a need for livestock watering facilities and cross fencing.

Also of concern is streambank and riverbank erosion, sheet & rill erosion, and gully erosion throughout the San Juan Basin. Bank erosion causes sedimentation in water courses which often impairs some of its uses while sheet & rill and gully erosion on farm and ranch land contributes to the loss of the productive capability of the soil and increases the management requirement of the farm and ranch enterprise. Sheet & rill and gully erosion also pose a problem on many of our road rights-of-way increasing the maintenance requirement on borrow ditches and roads.

Timber

There are approximately four million acres of timber and woodland (commercial and non-commercial) in the San Juan Basin. This includes 1.4 million acres of privately owned, 1.5 million acres of USFS land and 749,000 acres on Indian land.

The privately owned timber (commercial value) consists predominately of single age Ponderosa Pine approximately 100 years of age. Ponderosa Pine becomes very susceptible to the mountain pine beetle at 100 + years of age. The private timber owner's management objectives to date have largely been aesthetics, healthy trees, and wildlife. Timber production has been a management objective for only a small number of private landowners.

The traditional pinon/juniper woodland has not been developed much beyond the firewood market.

Colorado law calls for a tax break for the private landowner who has 40 or more contiguous acres under an approved forest management plan. From the forest management perspective these plans call for diversity species and age class and thinning. The large high-grade trees have largely been harvested off private land leaving the harvests now of 12-16 inch diameter breast height trees. Approximately 200,000 acres of the privately owned wooded land is considered commercial forest with 178,000 acres of the 200,000 being 10 acres or less in size, occurring on 1,000 landowners

A San Juan Resource Conservation and Development Council's objective is to promote sound timber stand improvement practices.

Goals and Objectives of the San Juan RC&D Council

The Council adopts the following goals and objectives. These objectives will be the framework of the Council's rural development effort.

Goal a: A healthy and productive land that sustains food and fiber production, sustains functioning watershed and natural systems, enhances the environment, and improves urban and rural landscapes.

Objective: Expanded opportunities for alternative crops and local marketing of farm products

Objective: Healthy and Productive Forest lands

Objective: Effective and efficient irrigation water delivery systems

Goal b: Economically viable and sustainable rural communities

Objective: Increase the positive opportunities affecting community and economic development

Objective: Healthy farm and ranch economy in the San Juan RC&D area

Objective: Build the capacity of rural community groups by providing access to regional, state, and federal resources

Objective: A functioning broadband telecommunication system throughout the San Juan RC&D area

Goal c: Public informed of the benefits of conservation and proper resource management

Objective: Utilization of radio, newspapers, field days, festivals, and newsletters to inform the public of the benefits of proper resource management

Goal d: Individuals and their neighbors working together as willing stewards of the natural resources on their property and in their communities.

Objective: Urban and rural communities that exhibit a high quality of life while enhancing the environment.

Objective: Healthy watersheds providing clean and abundant water supplies for people and the environment

Objective: A diverse and well-served customer base across the San Juan RC&D area.

"The San Juan RC&D Council agrees that the RC&D Program will be conducted in compliance with the nondiscrimination provisions as contained in Title VI and VII of the Civil Rights Act of 1964 as amended, the Civil Rights Restoration Act of 1987 (Public Law 100-259) and other nondiscrimination statutes; namely, Section 504, of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975 and in accordance with the regulations of the Secretary of Agriculture (7CFR-15, Subparts A and B) that provide that no person in the United States shall, on the ground of race, color, national origin, age, sex, religion, marital status, or handicap/disability be excluded from participation in, or be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial (or technical) assistance from the U.S. Department of Agriculture or any agency thereof."

The San Juan RC&D Council agrees that the signing of this document constitutes agreement to comply with Federal laws concerning restrictions on lobbying, a drug-free workplace, and responsibilities for nonprocurement, suspension, and debarment, and State review.

The San Juan RC&D Council hereby adopts this RC&D Area Plan and agrees to use effectively the assistance provided by the U.S. Department of Agriculture to realize the goals and objectives outlined herein.

San Juan RC&D Council, Colorado

By: Lee Campbell Date: 2/13/2003
Lee Campbell, Chair

Attest: Ann Brown
Ann Brown, Secretary/Treasurer

This action authorized at an official meeting of the San Juan RC&D Council on March 20, 2003

U.S. Department of Agriculture – Natural Resources Conservation Service

The State Conservationist hereby acknowledges the attached Area Plan of the San Juan RC&D as meeting the requirements under Public Law 97-98 to receive assistance from USDA.

Acknowledged by:

Allen Green Date: 11/31/06
Allen Green, State Conservationist