



Southwest Quay
Soil and Water Conservation District
LAND USE PLAN

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Photo by Malorie McAllister

The Southwest Quay Soil and Water Conservation District (SQSWCD or District) Land Use Plan (Plan) is an executable policy for natural resource management and land use on the lands within the District and provides a scientifically and culturally sound framework for resource planning objective.

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Executive Summary

1.0 INTRODUCTION

1.1 Background

1.2 Authority

1.3 Adoption

2.0 PRIMARY PLANNING GUIDANCE

2.1 Plan Definitions

2.2 Annual Action Plan

2.3 Policies and Procedures

2.4 Emergency Plans—(for dams and structures)

2.5 Coordination Agreements—(local, state and federal agencies)

3.0 PURPOSE, CUSTOM AND CULTURE, AND GOALS

3.1 Purpose

3.2 Custom and Culture

3.3 Goals

4.0 PRIMARY PLANNING GUIDANCE AND DIRECTIVES (PPGD)

4.1 Objectives

4.2 Resource Concerns

4.2-1 Water Resources

4.2-2 Soil Resources

4.2-3 Agriculture

4.2-4 Range and Grassland

4.2-5 Livestock and Wildlife

4.2-6 Energy

4.2-7 Wildfire

4.2-8 Custom and Cultures

4.2-9 Riparian Habitat

4.2-10 Threatened, Endangered / Sensitive Species

4.2-11 Predators

4.2-12 Outreach and Education

4.2-13 Watershed Management

4.2-14 Natural Climate Cycles/Climate Change - Weather Modification (Cloud Seeding/Water Enhancement)

4.2-15 Playa Lakes

EXECUTIVE SUMMARY

Sections 73-20-25 through 73-20-48 NMSA 1978 is the summary description of the New Mexico Soil and Water Conservation District Act (Act). The Southwest Quay Soil and Water Conservation District (District) is the administrative body responsible for the dictates of the law in Southwest Quay County outside of the administrative boundaries of the DeBaca, Central Curry, Canadian River and Guadalupe Soil and Water Conservation Districts. SQSWCD was formed circa 1939 and there are approximately 424,582 acres within SQSWCD boundaries.

The District is a governmental subdivision of the state, a public body politic and corporate. The Board of Supervisors (Board) is charged with matters affecting soil erosion and flood water and sediment damage. As such, the duties of the Board include the coordination of matters of research, investigations, and surveys with government agencies. The results should be published and disseminated along with remedies and control measures related to such findings.

The District will coordinate projects on the land with local, state, and federal agencies for such remedy and enhancement of the resource base. The District has the authority, concerning natural resources, to assist, contract, and render financial aid, when practical, to the stakeholder community.

The District's customs and culture play a large role in how the citizens of Quay Soil and Water Conservation District earn their livelihoods. The District's economy is, and will continue to be dependent upon these activities. Since The District is directly dependent upon its natural resources, management decisions affecting land use directly impact and change the District's custom and culture. Therefore, a critical tie exists between the use of private, federal, state and local natural resources and the economic stability of the District. It is imperative that stakeholders and informed representatives review natural resource issues as they are developed, to assure public land management decisions do not negatively impact citizens within the District's jurisdictional boundaries.

The body of work acquired over time must be expanded into parallel, comprehensive plans for natural resource conservation and development and utilization. This includes flood prevention and soil erosion control.

By law and mutual good, projects of any government agency imagined, planned, and undertaken for the matters of soil conservation, erosion control or prevention, flood prevention, or matters of turf enhancement, brush control, or wildlife and livestock system enhancements should be acquired and managed by the District. As such, the District is the agent and instrumentality for state or federal government acquisition, land designation, construction, operation, or administration of such projects.

In order for the foregoing to be accomplished, the District must have a comprehensive and dynamic Land Use Plan (Plan). The Plan is required to take available technical, financial, and educational resources, whatever their source, and focus and coordinate them so they meet the needs of the local land user.

The Plan is predicated on the District always being in full knowledge of all state agency plans, local government planning, and federal agency Schedules of Proposed Actions (SOPA). The Plan is also de-

pendent on enhancing and strengthening stakeholder presence culminating from strong local custom and culture. Such a matter of importance must be judged on zero net loss of privately held lands which equates positively to concentration of assisted projects.

Within the algorithm of control of zero net loss, farm and range land must further be protected on the same basis. All other matters explicit and implicit in the Plan strongly adhere to that basic premise.

Most importantly, the soil and water resource pool must be protected from agency and governmental creation of willing sellers emanating from stepwise reduction of productivity from restrictive land use designations.

Endangered Species Act (ESA) policies have been driven by litigation, which has diverted attention and resources away from species recovery. It is this District's policy, to the maximum extent possible including 'cooperating agency status' and 'coordination' as defined by congressional action, to participate in all decision processes associated with federal and state agencies management actions relating to all sensitive, threatened, and endangered species, including candidate species.

The District will adhere to the dictates of the law and seek those actions that will satisfy the standards of consistency review within the process. In that manner, expectations of customs and culture will be honored.

This Land Use Plan is crafted to address those major issues.

1.0 INTRODUCTION

The Southwest Quay Soil and Water Conservation District (SQSWCD or District) Plan is an executable policy for natural resource management and land use on the lands within the District. It adheres to the legislative purpose of the Soil and Water Conservation District Act and for those measures will serve to conserve and develop the natural resources, provide for flood control, preserves wildlife, protect the tax base and promote the health, safety and general welfare of the people of this District. It provides a scientifically and culturally sound framework for resource planning objectives. There is an identified need to promote public understanding that land and water is the most important resource within SQSWCD, and that, as such, it must be used in a sustainable way. Emphasis is placed on the need to create “viable rural working landscapes. It is a dynamic plan.

The Plan is designed to: (1) provide protection for the soil and water resources; (2) provide strategies and policies for enhancing the conservation, improvement, and management of these resources; (3) facilitate federal agency efforts to seamlessly coordinate joint efforts between federal, state and county land use decisions.

This Plan is not intended to regulate, zone or otherwise reduce private property rights, in as much as this Plan seeks to protect private property rights and customs and culture. Where private property such as water rights, rights-of-way, easements, forage rights, mineral rights, and other property occur within lands administered by federal and state agencies, the Plan may prompt decisions that indirectly affect property rights.

When a species is listed under the Endangered Species Act (ESA), there are sweeping consequences for landowners, businesses, and communities near the habitat in question. ESA regulations are incredibly expensive, and a single listing can affect hundreds of thousands of people. So it's crucial that the federal government use the best available objective peer reviewed science to evaluate whether a listing is necessary or if other conservation efforts will be successful.

Federal law, in particular, establishes national policies that focus on national interests, rather than local interests. While federal land use and planning decisions may create benefits for state and national citizens outside of SQSWCD, they may also transfer a disproportionate amount of the costs and responsibilities to local communities and citizens.

1.1 BACKGROUND/HISTORY

Quay County sits in eastern New Mexico and was created in 1903 from Chaves and Guadalupe Counties. The County was named for Matthew S. Quay, a Pennsylvania senator who supported statehood for New Mexico. It's county seat is Tucumcari and secondary communities in the county include House, Wheatland, Quay, Montoya, McAlister, Forrest Endee, Bard, Nara Vista, San Jon and Logan.

According to the 2022 Census of Agriculture, Quay County had 592 farms consisting of 1,834,958 acres. Total cropland consists of 338 farms totaling 198,356 acres, however, only 51 farms totaling 253,574 acres are considered irrigated farms and of that 10,488 acres are irrigated. The primary crops include: grains, sorghum, forage land use for all hay, and livestock. Ranching is historically important to Quay County.. Approximate land area in acres 1,839,288; proportion in farms 99.8.%.

So Agriculture has been and remains an important economic driver for Quay County communities. However, water remains the most important natural resource for Quay County, especially agricultural producers. Careful management of the region's water supplies is critical.

LOCATION

Located in Eastern New Mexico with its eastern border being the Texas state line. According to the U.S Census Bureau, the Quay County has a total area of 2,882 square miles of which 2,847 square miles is land and 7.2 square miles (0.3%) is water.

DISTRICT LAND STATUS

Southwest Quay SWCD has a total of **424,582** acres within its boundaries of which 354.9 acres (0.1%) is Bureau of Land Management (BLM), 45,273 acres (10.7%) is State Land, and 378,954 acres (89.3%) is private.

ELEVATION

Ranges between 3,500 feet above sea level to 5,350 feet above sea level.

CLIMATE

Climate varies according to elevation but predominantly the District is temperate and continental in type, with cool winters and warm summers. Temperature ranges from an average minimum of 20°F in January to an average maximum in July of 95°F.

WATERSHEDS

The United States Geological Survey (USGS) has designated twenty-one major regions (river basins) for the nation. Regions are further divided into subregions and New Mexico contains portions of five regions: Arkansas-White-Red, Texas Gulf, Upper Colorado, Lower Colorado, and the Rio Grande. Within New Mexico the Rio Grande region is divided into two subregions, the Pecos and the Rio Grande.

SQSWCD has seven main 8-digit hydrologic unit watersheds: Upper Canadian - Ute Reservoir (NM/TX), Revuelto (NM), Middle Canadian - Trujillo (NM/TX), Tierra Blanca (NM/TX), Pecos Headwater (NM), Upper Pecos (NM), Taiban (NM).

VEGETATION/GEOLOGY

The District is ecologically classified in mostly one Level III ecoregion with the Southwest corner in another: 1) **High Plains and 2) Southwestern Tablelands.**

Ecoregions within the District include; Llano Estacado, Semiarid Canadian Breaks and Conchas/Pecos Plains

The District physiography includes; *Llano Estacado* - Level, elevated plains, decreasing in elevation from west to east. Few to no streams. Surface water in numerous ephemeral pools or playas. ***Conchas/Pecos Plains*** - Broad, rolling plains, tablelands, piedmonts, river valleys. Mostly ephemeral and some intermittent streams; a few perennial rivers cross the ecoregion. The Pecos River is often dry in places due to diversions and permeable geology. ***Semiarid Canadian Breaks*** - This ecoregion has large areas of Triassic mudstone and shales ex-

posed. The mudstones and shales create badlands that are not productive, and plant growth is sparse, increasing the look of aridity to the landscape. Some of the taller grasses and eastern riparian species also tend to disappear towards the west in the ecoregion as conditions become drier and the soils become less productive.

The District vegetative type by ecoregions include; *Llano Estacado* - Shortgrass prairie of buffalograss, blue and sideoats grama, and little and silver bluestem. Sandy sites: Sand bluestem, sand dropseed. Forbs: dalea, scarlet globe-mallow, sunflower, stiffstem flax. Invading shrubs: mesquite, narrowleaf yucca. Playas: Grasses, or willow, rushes, and aquatic plants. **Semiarid Canadian Breaks** - The shrub and midgrass prairie vegetation includes one-seed juniper, sand sagebrush, skunkbush sumac, and yucca, along with sideoats grama, little bluestem, western wheatgrass, blue grama, buffalograss, galleta, and alkali sacaton. **Conchas/Pecos Plains** - Shortgrass and some midgrass prairie with blue grama, galleta, sand dropseed, threeawns, ring muhly, broom snakeweed, cacti, yucca, and cholla. Some areas of sideoats grama and little bluestem, with blue grama, western wheatgrass, galleta, and buffalograss. Some areas of scattered juniper.

CURRENT LAND RESOURCE USE

Conchas/Pecos Plain - Grassland, ranching and livestock grazing. Some irrigated cropland of mostly hay and alfalfa. **Llano Estacado** - Grassland; cropland with cotton, corn, and wheat; ranching and livestock grazing; some urban. Endemic playa lake flora and fauna has been altered by agricultural activities. **Semiarid Canadian Breaks** - Shrubland and grassland. Livestock grazing, and **wildlife habitat**.

SOILS

Mollisols (Paleustolls, Argiustolls, Haplustolls, Calciustolls), Alfisols (Paleustalfs, Haplustalfs), Vertisols (Epi-aquerts, Haplusterts), Inceptisols (Calciustepts, Haplustepts), Entisols (Ustipsamments, Torripsamments), Inceptisols (Calciustepts), Aridisols (Haplargids, Petrocalcids, Haplocalcids, Calciargids, Petroargids).

1.2 AUTHORITY

Sections 73-20-25 through 73-20-48 NMSA 1978 considered and resolved by legislative action, the purpose of the Act declared that 1) the land, waters and other natural resources are the basic physical assets of New Mexico, and their stewardship and development are necessary to protect and promote the health and general welfare of the people of the state; 2) the improper use of land and related natural resources, soil erosion, and water loss result in economic waste in New Mexico through the deterioration of the state's natural resources, and; 3) appropriate corrective and conservation practices and programs must be encouraged and executed in New Mexico to conserve and develop beneficially the soil, water and other natural resources of the state;

It is declared to be the policy of the legislature and the purpose of the Soil and Water Conservation District Act (Act) [73-20-25 NMSA 1978] to: 1) control and prevent soil erosion; 2) prevent floodwater and sediment damage; 3) further conservation development, beneficial application and proper disposal of water; 4) promote the use of impounded waters for recreation, propagation of fish and wildlife, irrigation and for urban industrial needs; and 5) by the application of these measures, conserve and develop the natural resources of the state, provided for flood control, enhance wildlife, protect the tax base and promote the health, safety and general welfare

of the people of New Mexico.

73-20-26. Legislative states “The land, waters, and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state.”

Under **73-20-45. Specific powers of districts. (2003)** SQSWCD by and through its supervisors, is authorized to contract, convey and make and execute other instruments and documents necessary or convenient to the exercise of district powers: as well as act as agent for any instrumentality or agency of the state or the federal government in the acquisition, construction, operation or administration of a natural resource conservation, utilization or development project or program within the district.

73-20-44. Districts; description; general powers of districts. (2003) States that “A 'soil and water conservation district,' organized under or perpetuated by the provisions of the Soil and Water Conservation District Act is a governmental subdivision of the state, a public body politic and corporate.” Districts may conduct a wide array of research, investigations, and surveys to facilitate conservation and development. Included, but not limited to, is the extended authority to develop comprehensive plans for natural resource conservation, development, and utilization including flood prevention, control and prevention of soil erosion and the development, utilization and disposal of water.

73-20-47. Cooperation between districts. (1965). “The supervisors of two or more soil and water conservation districts may cooperate with each other in the exercise of any district power.”

73-20-48. State agencies to cooperate. (2003) “Agencies, instrumentalities and political subdivisions of this state having jurisdiction over or charged with the administration of public lands situate within the defined geographical area of any district shall cooperate to the fullest extent with the district’s supervisors in effecting district projects and programs. Supervisors shall have free access to enter and perform work upon state public lands lying within their districts; provided, however, supervisors shall not have unqualified access to state lands that are subject to private dominion under lease or that are developed for, or devoted to, another public use.”

1.3 ADOPTION

By adoption of this Plan in accordance with the Act, the District hereby records its intention to engage in decision making that pertains to all soil and water resources within its jurisdiction as provided under the law. The statement of purpose includes the recognition of the duties, statutory requirements, court mandates, executive orders, and policies of local, county, state, and federal agencies to comply with plans adopted under the concept and definition of coordination noted herein. This also facilitates the coordination of local, county, state, and federal planning efforts with the local planning efforts of the District.

It is the policy of the District for improvement of resource quality, greater multiple uses of the resources, and the enhancement of soil and water stability of administered lands. SQSWCD is committed to a positive planning process with federal and state agencies and local governments. SQSWCD will equitably consider the best interests of all the people within SQSWCD’s jurisdictional boundary and the State of New Mexico in the use of state and federal lands. SQSWCD commits to seeing that all natural resource decisions affecting the District are guided by the following principles:

- To maintain and revitalize the idea of multiple use on state and federal lands within SQSWCD's jurisdictional boundary.
- To protect private property rights and private property interests, including investment-backed expectations.
- To protect local historical custom and culture.
- To protect the traditional economic structures in the District that form the base for economic stability.
- To facilitate new economic opportunities by relying on free markets.
- To protect the rights to the enjoyment of the natural resources of the District by all citizens.

SQSWCD believes that resource and land use management decisions made in a coordinated manner by federal and state agencies and local government entities will maintain and revitalize multiple use of state and federal lands within and affecting the District and will enhance environmental quality. The District will coordinate with the various agencies to participate in and advance such effort. The District will review the Plan every year and update when appropriate.

2.0 PRIMARY PLANNING GUIDANCE

2.1 PLAN DEFINITIONS

- **Agriculture** – The art and science of growing crops and raising and breeding livestock. According to this Plan, activities which traditionally define agriculture in the District include, but are not limited to, poultry, cattle, sheep, hogs and pigs; hay, grain, chile, vegetables melons, potatoes, and other crop production.
- **Animal Unit Month (“AUM”)** – The quantity of forage required by one mature cow and her calf (or equivalent, in sheep or horses, for instance) for one month. The amount of forage needed to sustain one cow, five sheep, or five goats for a month. In the United States, a full AUMs fee is charged for each month of grazing by adult animals if the grazing animal (1) is weaned, (2) is 6 months old or older when entering public land, or (3) will become 12 months old during the period of use.
- **Area of Critical Environmental Concern (ACEC)** – areas within public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural and scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.
- **Archeological and Historic Preservation Act 1974** – Provides for “the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or de-

stroyed as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency or (2) any alteration of the terrain caused as a result of any Federal construction project or federally licensed activity or program.” 16 U.S.C. §469.

- **Candidate Conservation Agreement** – US Fish and Wildlife Service (FWS) by policy may enter into an agreement with a state agency, local government or private landowner to protect or manage habitat for a species that is proposed for listing but is not yet listed. Under the terms of the agreement, generally an agreed-upon amount of land is set aside or earmarked to be conserved for the candidate species. The landowner may also receive compensation and assurances that if the species is listed, the landowner will not be required to adopt additional conservation measures.
- **Clean Water Act** – The Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) is the foundation for surface water quality protection in the United States. Congress gave States and tribes the option for taking primary responsibility for water pollution control.
- **Climate** - Is the average weather in a given area over a longer period of time. A description of a climate includes information on, e.g. the average temperature in different seasons, rainfall, and sunshine. Also a description of the (chance of) extremes is often included.
- **Climate Cycles (Natural)** - Climate varies without human influence, and this natural variation is a backdrop for the human-caused climate change occurring now. These patterns hold important lessons for understanding the magnitude and scope of current and future climate changes. Cyclical variations in the Earth's climate occur at multiple time scales, from years to decades, centuries, and millennia. Cycles at each scale are caused by a variety of physical mechanisms. Climate over any given period is an expression of all of these nested mechanisms and cycles operating together.
- **Climate Change** - is any systematic change in the long-term statistics of climate variables such as temperature, precipitation, pressure, or wind sustained over several decades or longer. Climate change can be due to natural external forcings (changes in solar emission or changes in the earth's orbit, natural internal processes of the climate system) or it can be human induced.
- **Compensable Property Right** – Is any type of right to specific property, personal or real, tangible, which, when reduced or taken for public purposes, is due just compensation under the Fifth Amendment of the United States Constitution.
- **Conservation** - Management of the human use of natural resources to provide the maximum benefit to current generations while maintaining capacity to meet the needs of future generations. Conservation includes both the protection and rational use of natural resources.
- **Conveyance of Harm** – The loss or detriment suffered by resource users because of intrusion of uncoordinated actions.
- **Cooperation** – 1) An act or instance of working or acting together for a common purpose or benefit; joint action. (2) Process created by government agencies to marry the general attempt to blend respective

areas of responsibility, authority, and expertise of governing bodies and agencies for creating more effective land planning partnerships.

- **Cooperating Agency** – 1. Generally reference to the partnership agent in the relationship of preparing resource management plans, partnering with Tribes, state, and local governments (intergovernmental partners) before, during, and after plans and Environmental Impact Statements (EISs) are prepared. 2. The agent acting upon and within the framework for intergovernmental efforts in achieving early and consistent partnership involvement, incorporating local customs and culture as well as state and local land use requirements, address intergovernmental issues, avoid duplication of effort, enhance local credibility of plans and EISs, encourage support for management decisions, and build relationships of trust.
- **Coordination** – 1. Process created by Congress to ensure consistency of federal plans and activities with local government plans and policies. 2. Coordination is defined as the act of coordinating; harmonious adjustment or interaction; one that is equal in importance” (American Heritage Dictionary). Coordination is more than “cooperate” or “consult. The courts have defined the term as well: “The concept of ‘coordination’ means more than trying to work together with someone else. To ‘coordinate’ is ‘to bring into a common action, movement, or condition; it is synonymous with; harmonize.” (California Native Plant Society v City of Rancho Cordova, 172 Cal. App 4th 603, 91 Cal. Rpt. 3rd 571 (Third App. Dist. 2009). 3. Specifically the National Forest Management Act (16 U.S.C. §§ 1604 (a)) requires the Secretary of the Department of Agriculture to: develop, maintain and as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management processes of state and local governments and other federal agencies. 4. Specifically the Federal Land Policy and Management Act (43 U.S.C.A. 1712(c)(9)) requires the Secretary of the Department of Interior to: a. Keep apprised of local plans; b. assure consideration is given to the local plans; c. assist in resolving inconsistencies with local plans; d. meaningfully involve local governments in the planning process; and e. ensure land use plans are consistent with local land use plans.
- **Coordination Process** – a process by which local government engages in a government-to-government dialogue with state and federal agencies in a constructive effort to achieve consistency between state and federal land use plans and actions with local government.
- **Coordinated Resource Management (“CRM”)** – A group of people working together to develop common resource goals and resolve natural resource concerns. CRM is a people process that strives for win-win situations through consensus-based decision-making.
- **Critical Threshold or tipping point events** - A threshold is crossed in a natural system that triggers an irreversible reaction. Reversing the trigger does not restore the natural system to its original condition. *Example* - when water is pumped from certain aquifers, the pore space in the aquifer will collapse, resulting in permanently reduced capacity of the aquifer.
- **Culture** - Culture is defined as the customary beliefs, social forms and material traits of a group; an integrated pattern of human behavior passed to succeeding generations. *Webster’s New Collegiate Dictionary*, 227 (1975).

- **Custom** - Custom is a usage or practice of the people, which by long and unvarying habit, has become compulsory and has acquired the force of law with respect to the place or subject matter to which it relates. *Bouvier's Law Dictionary*, 417 (1st ed. 1867).
- **Data Quality Act** - Section 515 of the Treasury and General Governmental Appropriations Act for Fiscal Year 2001 (Public Law 106-554) directed the Office of Management and Budget to issue guidelines to "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information [including statistical information] disseminated by Federal agencies."
- **de facto Wilderness Management** – Land management policy that is imposed without congressional direction or authority that mirrors or is similar to the management of areas designated by Congress as wilderness pursuant to the 1964 Wilderness Act. The management restrictions and prohibitions include: the prohibition of construction of new roads; restriction or prohibition on reconstruction or maintenance of existing roads; prohibition of mining or mineral development; restrictions on activities that would require permanent structures or facilities, or restrictions on motorized vehicle use or the use of mechanical tools or means of travel.
- **Desired Plant Community** – A plant community which produces the kind, proportion and amount of vegetation necessary for meeting or exceeding the land use plan and activity plan objectives established for an ecological site(s). The desired plant community must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.
- **Economics** – Pertaining to the development and management of the material wealth of a government or community.
- **Erosion** – (v.) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity.(n.) The land surface worn away by running water, wind, ice or other geological agents, including such processes as gravitational creep.
- **Federal Lands**—All land and associated natural resources owned and managed by the United States. Federal lands include, but are not limited to, public lands, federally reserved lands, federal mineral leases, federal geothermal leases, livestock grazing allotments and leases, federal rights-of-way, but categorically exempted are lands and resources to which private interest or title is attached.
- **Forms of Production** – The forms of production component include the things you have or need to produce to retain or attain the desired quality of life. The derived forms of production statement of the District reads as follows: "The quality of life we strive for will be achieved by continuing to maintain and enhance sustainable and optimum production of renewable and nonrenewable resources and to encourage and support the motive and means to enhance economic opportunity and education."
- **Future Resource Base** – The future resource base component includes the people, land and community we live in and the services available, and what we will need to sustain and enhance our quality of life and forms of production. The future resource base statement of SQSWCD reads as follows: "Through the efforts of cooperation and communication among the local people, our community will have a beneficial impact on sustaining a strong and viable multiple-use of our lands, including agricultural, industri-

al, mineral production, commercial, recreational and historical uses, which together will provide the continued ability to generate wealth and growth and needs of our community.”

- **Grazing Management Practices** – Grazing management practices include such things as grazing systems (rest-rotation, deferred rotation, etc.), timing and duration of grazing, herding, salting, etc. They do not include physical range improvements.
- **Guidelines (For Grazing Management)** – Guidelines provide for and guide the development and implementation of, reasonable, responsible, and cost-effective management actions at the allotment and watershed level which move rangelands toward statewide standards or maintain existing desirable conditions. Appropriate guidelines will ensure that the resultant management actions reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural and historic, and economic opportunities to sustain viable local communities. Guidelines, and, therefore, the management actions they engender, are based on sound science, past and present management experience and public input.
- **Habitat Conservation Plan** – The FWS will approve a plan to protect habitat for a species listed under the ESA located on private land. The habitat conservation plan allows private landowners to use or develop the land, even though the activities may adversely affect a listed species. The plan will also include a “takings permit” which will permit the incidental loss of habitat or potential harm to a listed species.
- **Habitat Fragmentation** – An event that creates a greater number of habitat patches that are smaller than the original contiguous tract(s) of habitat.
- **Healthy Soils** - soil that enhances its continuing capacity to function as a biological system, increases its organic matter and improves its structure and water- and nutrient-holding capacity.
 - “Soil health principle” is a principle that promotes soil health in a given environment and includes:
 - Keeping soil covered;
 - Minimizing soil disturbance on cropland and minimizing external inputs;
 - Maximizing biodiversity;
 - Maintaining a living root
 - Integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms
- **Historical Value** – 1. The collective contributions of objects and values derived and established in recorded history that impact the character of the District and contribute directly to the customs and cultures related to the use and protection of natural resources as described in the Act. 2. The primary managed value as set forth in Federal Land Policy and Management Act (FLPMA) that applies to natural resources and the respective resource users as set forth in the Act.
- **Indicator** – An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity and distribution) can be measured based on sound scientific principles. An indicator can be measured (monitored and evaluated) at a site or species-specific level. Measurement of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appro-

— appropriate indicators to be monitored in a particular allotment is a critical aspect of early communication among the interests involved on the ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

- **Irreversible and Irretrievable Commitment of Resources** – NEPA requires that each EIS address the resources that will be permanently lost or committed as a result of the project. When oil is produced from a well, it is lost or committed and cannot be later developed. Vegetation resources associated with a well pad are not irreversible committed because the site can be reclaimed.
 - **Invasive Species** - A species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health.
 - **Jeopardy Review** – The FWS, pursuant to the Endangered Species Act (ESA), must evaluate all federal actions that may adversely affect a species that is listed under the ESA to determine whether the proposed action is likely to jeopardize the continued existence of the species. 16 U.S.C. §1536. As part of the jeopardy review, which is also called a “Section 7 review,” FWS prepares a biological opinion, makes a determination regarding jeopardy, and recommends additional conservation measures that would mitigate the impacts on the species. If the FWS makes a finding of jeopardy, the proposed federal action may not proceed.
 - **Lands with Wilderness Characteristics** – lands that fit the strict definition of wilderness as set forth in the Wilderness Act, e.g., ‘5000 contiguous acres’, etc., and are allowed by strict inventory methods as defined by FLPMA.
 - **Managed Values** - Values attached to the management of federal lands as set forth in FLPMA. Such values are identified to protect the quality of management, preserve certain lands in their natural condition, provide food and habitat for fish, wildlife, and domestic animals, and provide for outdoor recreation, human occupancy and use. The eight identified managed values are scientific, scenic, historical, ecological, air and atmospheric, water resources, and archeological.
 - **Multiple Use** – 1. Balanced and diversified management of federal lands and their various public resources to best meet present and future economic and resource needs of the American people. 2. Management of lands and their various resource values so that they are used in the combination that will best meet the present and future needs of the citizenry and the American people. 3. A combination of balanced and diverse resource uses that include managed values as set forth in FLPMA.
 - ✦ Multiple use of the public lands managed by the Bureau of Land Management means: “the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values;
-

and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” Federal Land Policy and Management Act, 43 U.S.C. §1702(c).

- **Natural Resources** – As used in this Plan, all renewable and nonrenewable material in its native state which when extracted has economic value as it pertains to the protection and beneficial use of soil and water. Natural resources may be commercial or noncommercial in nature.
- **Objective** – An objective is a site-specific statement of a desired rangeland condition. It may contain qualitative (subjective) elements, but it must have quantitative (objective) elements so that it can be measured. Objectives frequently speak to change. They may measure the avoidance of negative changes or the accomplishment of positive changes. They are the focus of monitoring and evaluation activities at the local level. Objectives may measure the products of an area rather than its ability to produce them, but if they do so, it must be kept in mind that the lack of a product may not mean that the standards have not been met. Instead, the lack of a particular product may reflect other factors such as political or social constraints. Objectives often focus on indicators of greatest interest for the area in question.
- **Objectivity** - Includes whether disseminated information is being presented in an accurate, clear, complete, and unbiased manner. In a scientific or statistical context, the original or supporting data shall be generated, and the analytical results shall be developed, using sound statistical and research methods.
- **Occupied Range (Territory)** - To constitute an occupied range (territory) a pair, a male and female, of any identified species must be present for at least one life cycle, including the successful production of viable offspring. The appearance of a single individual in an area does not constitute occupied range (territory).
- **Objective Peer Review** - A third party review by experts of similar competence to the producers of the work, outside of the organization or entity making the claim, to ensure it meets specific criteria and to prevent dissemination of irrelevant findings, unwarranted claims, unacceptable interpretations, and personal views.
- **Playas** - Playas are a wetland type found across the shortgrass prairie region of New Mexico. Playas are defined as “shallow depression recharge wetlands similar to prairie potholes, characterized by annual or multiyear cycles of dry down and filling” (Smith 2003). The greatest density of playas is found in short grass prairies of the Llano Estacado, a portion of which exists in Eastern New Mexico.
- **Private Property** – As protected from being taken for public uses.
- **Post-fire Watershed Stabilization** - Watershed stabilization includes those emergency stabilization treatments necessary to protect life, property, and watershed values (soil productivity and water quality and quantity).
- **Public Lands** – Lands open for sale or other disposition under the general land laws to which no claims

or rights of others have been attached.

- **Rainwater harvesting** - The accumulation and deposition of rainwater for reuse on-site, rather than allowing it to run off. Uses include water for garden, water for livestock, water for irrigation.
- **Rights-of-Way** – This term generally refers to “an easement, lease, permit, or license to occupy, use, or traverse lands” and such right may be created by federal or state statute, deed, contract or agreement, or permit. A right-of-way may also include: Any road, trail, access or way upon which construction has been carried out to the standard in which public rights-of-way were built within historic context. These rights-of-way may include, but not be limited to, horse paths, cattle trails, irrigation canals, waterways, ditches, pipelines or other means of water transmission and their attendant access for maintenance, wagon roads, jeep trails, logging roads, homestead roads, mine to market roads, and all other ways.
- **RS2477 Rights of Way** – Revised Statute 2477 was a self-executing law. When the conditions were met, the right-of-way grant was made. No further action by the grantee or by Congress was necessary to validate it.
- **Range** – Rangelands, forests, woodlands and riparian zones that support and understory or periodic cover of herbaceous or shrubby vegetation amenable to rangeland management principals or practices. Land on which the principal natural plant cover is composed of native grasses, forbs, and shrubs that are valuable as forage for livestock and big game. Any land supporting vegetation suitable for wildlife or domestic livestock grazing, including grasslands, woodlands, shrublands and forest lands.
- **Range Condition** – The current productivity of a rangeland relative to what the land could naturally produce based on the site’s soil type, precipitation, geographic location and climate.
- **Range Improvements** – Range improvements include such things as corrals, fences, water developments (reservoirs, spring developments, pipelines, wells, etc.) and land treatments (prescribed fire, herbicide treatments, mechanical treatments, etc.).
- **Range Management** – Ensure a sustained yield of rangeland products while protecting and improving the basic range resources of soil, water, and plant and animal life. Besides producing forage for livestock and wildlife, a range can provide timber, minerals and recreational opportunities. SQSWCD subscribes to the concept of multiple use, which requires that all the resources of a rangeland be managed simultaneously, using constant monitoring and adjustments to provide a mix of material products and intangible assets that best satisfy the needs of the land, landowners and the general public.
- **Rangeland Preservation Area** – a conceptual federal land designation that balances access and land uses, and is in the process of being defined.
- **Rare, threatened or endangered species** - means any plant or animal species protected under the provisions of the New Mexico Endangered Plant Species Act of 1985 (Section 75-6-1 NMSA 1978), the New Mexico Wildlife Conservation Act of 1974 (Sections 17-2-37 through 17-2-46 NMSA 1978 (1995 Repl. Pamp.)), and the federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) all as may be amended from time to time.

- **Recharge** - The addition of water to an aquifer by infiltration, either directly into the aquifer or indirectly by way of another rock formation. Recharge may be natural, as when precipitation infiltrates to the water table, or artificial, as when water is injected through wells or spread over permeable surfaces for the purpose of recharging an aquifer.
- **Recovery Plan** – The ESA requires the FWS to prepare a plan to improve the status of a listed species to the point where the species need no longer be listed. A recovery plan typically sets population goals, identifies tasks to reverse or arrest the decline of a species and criteria for delisting the species.
- **Recreate** – to refresh by means of relaxation and enjoyment, as restore physically or mentally. An action or lack thereof, which results in relaxation, entertainment, and is enjoyed by those who participate.
- **Reintroduction Plan** – Under the ESA, a reintroduction plan is a specialized recovery plan designed to restore a threatened or endangered species to its historical habitat. A reintroduction plan will document the habitat area to be occupied and specific management actions to be taken to ensure the successful reintroduction of the listed species. Alternatively, a reintroduction plan by a state wildlife agency will return fish, game or other wildlife to an area where they have been extirpated.
- **Research Natural Area (“RNA”)** – A type of area of critical environmental concern or ACEC under BLM land use planning process where natural ecological and physical processes are allowed to occur and human activities are prohibited if they will interfere with the natural processes. Under Forest Service land use policy, an RNA is an area identified as a reference area to evaluate the impacts of management in similar environments, including areas for research and areas to be protected for biodiversity or threatened, endangered and sensitive species.
- **Riparian** – An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and stream banks are typical riparian areas.
- **Riparian Zone** - A riparian zone or riparian area is the interface between land and a river, lake or stream. Plant habitats and communities along the river margins and banks are called riparian vegetation, characterized by hydrophilic plants. Riparian zones are important in ecology, environmental management, because of their role in soil conservation, their habitat biodiversity, and the influence they have on fauna and aquatic ecosystems, including grasslands, woodlands, wetlands, or even non-vegetative areas.
- **Runoff** - Water not absorbed by soil or landscape to which it is applied. Runoff occurs when water is applied too quickly (application rate exceeds infiltration rate), particularly if there is a severe slope. Storm water runoff is created by natural precipitation rather than human caused or applied water use. The part of the precipitation that appears in surface streams.
- **Senior Water Rights** - Have earlier priority date and claimants who hold them have a higher priority to divert water from a stream or water body than those with more junior rights. However, in times of scarcity, when there is not enough water to meet demand in a basin, those who need water for domestic and livestock use have first right to water, regardless of one’s priority date.

- **Species of Greatest Conservation Need (SGCN)** - Species considered for inclusion had to occur within the state of New Mexico and meet at least one of the following conditions:
 - Declining: Species that have experienced substantial long-term declines in habitat or numbers.
 - Vulnerable: Species in which some aspect of their life history and ecology makes them disproportionately susceptible to decline within the next 10 years. Factors include, but are not limited to, concentration to small areas during migration or hibernation; low reproductive rates; susceptibility to disease, inability to respond to changing climate conditions, habitat loss, wildfire, and overexploitation for anthropogenic purposes.
 - Endemic: Species that are limited to New Mexico.
 - Disjunct: Species that have populations geographically isolated from other populations of the same species and are thereby disproportionately susceptible to local decline or extirpation.
 - Keystone: Species that are crucial to the integrity and the functioning of their ecosystems. These species may represent more value to conservation of biological diversity than the size of their population or their distribution would suggest.
- **Shade Balls** - Plastic spheres that float on top of livestock water tanks, that can lower evaporation dramatically, keep birds from spoiling water with excessive droppings, prevent algae and moss growth, and reduce freezing.
- **Soil** – Loose material from the earth’s surface in which all things grow, from which lands within the SQSWCD generate upwards of \$.75 billion annually, and which constitutes geologic sedentary and sedimentary accumulations.
- **Species of Concern or Special Status Species** – This term includes species that have been proposed for listing under the Endangered Species Act or have already been listed as threatened or endangered, as well as species that are on the candidate list published in the *Federal Register*. The term also includes any state-listed species or any “sensitive species” identified by the BLM State Director, which includes the above categories and might also include species undergoing downward trends due to changes in habitat capability or populations or which occupy specialized habitats.
- **Spill Over** – This term refers to the movement of introduced or reintroduced wildlife into areas where they were not intended to be in the plan. The presence of such species will greatly limit land uses, especially when the species is protected under the ESA or other federal and state laws.
- **Standards** – Standards are synonymous with goals and are observed on a landscape scale. Standards apply to rangeland health and not to the important byproducts of healthy rangelands. Standards relate to the current capability or realistic potential of a specific site to produce these by-products, not to the presence or absence of the products themselves. It is the sustainability of the processes, or rangeland health, which produces these byproducts.
- **Sustained Yield** – A “high-level” output of renewable resources that does not impair the productivity of the land. The continuation of a healthy desired plant community.
- **Takings in Context of Endangered Species Act** – Includes harm to a protected species when an act actually kills or injures wildlife. Such act may include significant habitat modification or degradation

where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. 50 C.F.R. §17.3.

- **Takings in Context of Property and Right to Compensation** – A ‘taking’ of property is generally defined as to deprivation of the right of use and enjoyment of the property. The ownership of property is often described as a “bundle of sticks” which includes mineral rights, rights of access, rights to use the surface, and rights to use the fruits raised from the surface, such as crops or grass. When land use regulation by federal, state or local government interferes with one of those rights in the bundle of sticks, a taking occurs only if it deprives the owner of all of his bundle of sticks or “investment-backed expectations.” More recent decisions will find a taking when the deprivation is total but temporary or when the deprivation precludes an essential element of the property right, such as the right to exclude others. Federal land agencies enjoy a much greater presumption of authority to limit the exercise of private property rights and successful takings cases more often involve disputes with a local government or state agency.
- **Unintended Consequences** – 1. Impact or damages that do not directly and immediately flow from the act or the policy implementation. 2. The result of unforeseen circumstances that are not predictable or immediately apparent to the casual observer without local input.
- **Visibility Protection Plan** – A plan that implements the requirements of the Clean Air Act.
- **Visibility or Visibility Impairment** – Visibility refers to amount or lack of haze that obscures the ability to see great distances. Visibility impairment measures the extent of haze composed of various air pollutants which manifest as a white or brown haze. This is a major issue with respect to national parks and wilderness areas, which are Class I air quality areas and are given the highest level of protection.
- **View** – The sight or prospect from a particular point, typically an appealing sight.
- **Viewshed** – The geographic area surrounding the visual area to be inventoried and managed.
- **Visual Condition Class** – The Clean Air Act recognizes four air quality classes with Class I applying to national parks and wilderness areas and Class II applying to all other federal land areas, such as National Forests, National Wildlife Refuges, and public lands. Visual conditions are affected by particulates, emissions including ozone, sulfur oxide, nitrogen oxide, carbon dioxide and the chemical reactions caused by humidity and sunshine.
- **Visual Resources** - Visual resources in the District are a composite of landforms, human and animal life forms, water features, cultural features, terrain, geologic features and vegetative patterns which create the visual environment. These visible physical features are important to the landscape and the scenic quality of the District.
- **Water** – To supply with water. Irrigate, sub-irrigate, dampen, vaporize, humidify, hose, spray, douse, drench, submerge, immerse, saturate, plunge, dip, splash, sprinkle, moisten, wet, and soak. In all forms i.e. subterranean, surface, captured, recaptured, processed or wild. All waters (subterranean, ponds, pools, stream, river, wild and or contained arroyos) within the footprint of SQSWCD.

- **Water Conservation** - Is reducing the use of water through technologic or social methods. It includes policies, practices, and education that promote the efficient use of water such as minimizing losses, reducing waste, minimizing use, and protecting availability for future uses. These policies and practices can range from more efficient practices in farm, home, and industry to capturing water for use through water storage or land-use practices.
- **Water Right** - Legal rights to use a specific quantity of water, on a specific time schedule, at a specific place, and for a specific purpose.
- **Watershed** – The total land area, regardless of size, above a given point on a waterway that contributes runoff water to the flow at that point. It is a major subdivision of a drainage basin. The United States is generally divided into 18 major drainage areas and 160 principal river drainage basins containing about 12,700 smaller watersheds. The entire region or land area that contributes water to a drainage system or stream, collects and drains water into a stream or stream system or is drained by a waterway (or into a lake or reservoir). More specifically, a watershed is an area of land above a given point on a stream that contributes water to the streamflow at that point. A region or area where surface runoff and groundwater drain to a common watercourse or body of water. The area drained by a river or river system enclosed by drainage divides. An area of land that drains to a single water outlet. A watershed is also known as a sub-basin.
- **Weather Modification** - Is the act of intentionally manipulating or altering the weather. The most common form of weather modification is cloud seeding, which increases rain or snow, usually for the purpose of increasing the local water supply. In New Mexico, the New Mexico Interstate Stream Commission is responsible for the administration of applications for weather modification programs, under **Title 19 - NATURAL RESOURCES AND WILDLIFE, Chapter 17: Weather Modification, Part 2: Weather Control and Precipitation Enhancement, and Chapter 75 - Miscellaneous Natural Resources Matters, NMSA 1978 - Article 3 - Weather Control and Cloud Modification.**
- **Wilderness Act of 1964** – Congress established the National Wilderness Preservation System to protect and preserve those areas deemed to be wilderness, which is defined as: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. 16 U.S.C. §1131(a).
- **Wilderness Area** – Tracts of land designated by an act of Congress to be part of the National Wilderness Preservation System.

- **Wilderness Study Area or WSA** – An area of land identified by Congress or a federal agency pursuant to Congressional direction to be evaluated for its suitability for designation by Congress as part of the National Wilderness Preservation System. Regarding public lands managed by the Bureau of Land Management, it refers to tracts of public lands determined to meet the definition of wilderness based on the wilderness inventory and review conducted by the Bureau of Land Management pursuant to Section 603 of the Federal Land Policy and Management Act, 43 U.S.C. §1782. A WSA typically meets the definition of wilderness in that it is “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” 16 U.S.C. §1131(c.)
- **Wildlife** – Populations, variety, and distribution of non-domestic birds, mammals, reptiles, amphibians, invertebrates and plants.

2.2 ANNUAL ACTION PLANS

The District develops annual work plans to advance the objectives of the Land Use Plan.

2.3 POLICIES AND PROCEDURES

The goal of this District is to pursue and participate in projects that protect the health, welfare and safety of the community in general and its stakeholders in particular. The defining expectation is that the federal government must engage in methods to enhance and perpetuate agriculture ... not underwrite its removal from the landscape.

The District wants to ensure that the local, state, and federal agencies respect procedural due process rights by providing adequate public notice and the opportunity for a hearing, including an evidentiary hearing, when granted by statute. Regulatory actions, such as designation of critical habitat under the Endangered Species Act or denial of surface access across federal land, operate to inversely condemn private property without providing just compensation. The District supports providing legal remedies when federal or state governmental action operates to take property rights or some portion of the property right.

2.4 EMERGENCY ACTION PLANS – (FILED FOR REFERENCE)

2.5 COORDINATION AGREEMENTS – (SUCH AS THE QUAY COUNTY LAND USE POLICY PLAN, PARTICIPATING, CO-OPERATING, AND STEWARDSHIP AGREEMENTS OR MEMORANDUMS OF AGREEMENT WITH STATE AND FEDERAL AGENCIES) PLUS ANY AGREEMENTS WITH OTHER LOCAL GOVERNMENTS OR NON PROFITS.

3.0 PURPOSE, CUSTOM AND CULTURE, AND GOAL

3.1 PURPOSE

The SQSWCD will address the use and management of natural resources, especially ground and surface water-resources, watersheds, rangeland, soil health, water conservation, and farmland within the political jurisdiction of SQSWCD as the heart of its comprehensive planning efforts. The closer decision-making is to the land and to the people who make use of the land, the more informed it will be as to the conditions of the land and the needs and desires of those who live, work and recreate there.

The purpose of the Plan is to guide policy concerning soil and water natural resource conservation and enhancement as needed and is intended to provide a framework for local, county, state, and federal agencies in land use planning that affect the resource universe in the District. Additionally the Plan is meant to safeguard the historic, traditional, conceptual and future conservation measures of these resources against all encroachments that may jeopardize their sanctity and beneficial use.

3.2 CUSTOMS AND CULTURE

The historic and contemporary influence of agriculture is the foundation of the community's customs and culture. Farms, ranches and support businesses have played and continue to play a fundamental role in local social and economic well-being. SQSWCD is increasingly concerned increasing regulations and land use changes within the dominion of federal land ownership are reducing the viability of farms and ranches. To reverse such trends, SQSWCD supports, encourages and promotes policies that will lead to the long term economic strength of the underpinnings of these customs and culture.

Protection of the customs and culture of the local area requires protection of the tax base, including the right (responsibility of the SQSWCD) to conserve, protect, encourage, develop and improve agricultural land for the production of agricultural products, and to reduce the loss to the state of its agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance

Federal Lands Policy and Management Act of 1976 (FLPMA) Section 102 has 8 values: Scientific, Scenic, Ecological, Environmental, History, Archeological, Air and Atmospheric, and Water. History is the only one that reflects customs and culture. Modern agency management reflects only scientific, scenic, archeological, ecological, environmental, air and atmospheric, and water. Federal land management plans are generally silent on historical features. SQSWCD strongly believes in the need to elevate the importance of historical values, and ensure that all 8 values are equal IN ANY decision made by land management agencies.

Continued equilibrium must be achieved through District interactions with local, state, and federal agencies to imagine and implement plans that meet changing conditions and needs. This interaction is critical to the well-being of the District and its ability to adapt for future needs. The District is intent on maintaining current and encouraging future protection of rights to maintain an environment capable of producing opportunities for future generations.

3.3 GOALS OF THE PLAN

1. Maintain and improve the soil, vegetation and watershed resources in a manner that perpetuates, sustains, and expands the beneficial uses of such resources while maintaining healthy ecosystems and fully supporting public safety, the customs and economic stability and viability of our industries and the gen-

eral welfare of the citizens of the District.

2. Provide the plans and policies that direct the SQSWCD in coordination with local, state, and federal bodies and agencies regarding planning, outlining, orchestrating, scheduling, mapping, designing, facilitating, imagining, formulating, designing, plotting, or strategizing land use plans that will affect the soil, water, and other resources of the District today, tomorrow, or further into the future.
3. Work with local, state and federal government agencies to fulfill the District's primary legal responsibility to provide for the health, safety, and well-being of their constituents.
4. Work to reduce any possibility of unintended consequences from decisions and actions that may be taken by agencies that can negatively affect the District; its economy, its tax base and the people it serves. Such action, in general, seeks to minimize the unintended consequences to the local land users from ongoing governmental courses of conduct.

4.0 PRIMARY PLANNING GUIDANCE AND DIRECTIVES

- The state of New Mexico has authorized the creation of SQSWCD with powers and duties to accomplish the legislative determination of the Act.
- Congress has mandated stabilization of soil and water through the Soil and Water Resources Conservation Act . . . "Recognizing that the arrangements under which the Federal Government cooperates . . . through conservation districts, with other local units of government and land users, have effectively aided in the protection and improvement of the Nation's basic resources . . . it is declared to be policy of the United States that arrangements and similar cooperative arrangements be used to the fullest extent practicable . . ."
- Congress has mandated . . . "Federal agencies shall coordinate with local and state agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."
- With District coordinated actions, federal agencies must be consistent with officially approved and adopted local land use plans, as long as such local plans are consistent with federal law and regulations.
- Work with all federal agencies to ensure resource management plans or management framework plans list known inconsistencies between their plans and district plans and submit those inconsistencies to the Governor of New Mexico. Agencies are obligated to take all practical measures to resolve conflicts between federal and local government land use plans.
- Federal Agencies are required to submit a notice of intent to prepare, amend, or revise a resource management plan to State Agencies, consistent with State procedures for coordination of Federal activities.
- Executive Order 12630 mandates . . . "Federal Agencies are required to analyze the economic effects or

taking implications of the proposed policies, decisions, rules and regulations on the private property, private property rights and investment backed expectations of individual citizens.”

- Federal agencies are obligated to coordinate their planning processes with local government land use plans. **43 C.F.R. §1610.3-1(a)**. The National Environmental Policy Act (NEPA) commands federal agencies to “discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned).
- Congress intended NEPA to apply to every action that significantly affects the quality of the human environment and the thresholds of local conditions are best observed and measured by local expertise. Considering the existing climate conditions in New Mexico, the effects on the population dynamics of fauna and flora are critical to the conditions affecting the community as well as the endangered species
- The District lands must be managed in a manner that will protect the quality and balance of natural resources as defined by the Act with the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archeological values with the intent to provide both stewardship and continued human occupancy and use.

4.1 OBJECTIVE

To create a coordinated working relationship with agencies and citizenry that protects and enhances local natural resources, safety and well-being for all.

The District constituency must have a regulatory environment that works for them, not against them, and minimizes any conveyance of harm to District land users. The regulatory environment should enhance lives, safety, and resources and improve the economy without imposing unacceptable or unreasonable costs. All regulatory policies must recognize the private sector and private markets are the engines for economic growth.

New regulatory approaches should respect the role of local and state governments and adopt regulations that are effective, consistent, sensible, and understandable. It is, therefore, imperative to set planning guidance for lands and resource interactions as they apply to matters of the District.

4.2 RESOURCE CONCERNS - No priority ranking has been established for the following resources concerns. The District will focus on each concern equally.

1. **Water resources**
2. **Soil**
3. **Agriculture**
4. **Range and Grassland**
5. **Livestock and Wildlife**
6. **Energy/Renewable**
7. **Wildfire/Post Fire**
8. **Customs and Culture**
9. **Riparian habitat**
10. **Threatened and Endangered / Sensitive Species**
11. **Predator Control**
12. **Outreach and Education**
13. **Watershed Management**
14. **Climate Cycle/Weather Modification (aka Cloud Seeding/Water Enhancement)**
15. **Playa Lakes**

4.2-1 WATER RESOURCES

Under New Mexico's State constitution, all water is managed by the state of New Mexico. In 1931, the New Mexico Legislature passed the state's Groundwater Code and the Code gave the State Engineer control over groundwater administration. There are 39 underground water basins in New Mexico. The District is located in the Ft. Sumner Basin.

The majority of the District's water source is from the Ogallala Aquifer. The Ogallala Aquifer is an underground water reservoir, created more than a million years ago through geologic action and covers about 174,000 square miles mainly in Nebraska, Kansas, Oklahoma, and parts of New Mexico, Texas, South Dakota, Wyoming, and Colorado. The Ogallala is part of the **High Plains Aquifer System**.

Water in the High Plains (Ogallala) aquifer of eastern New Mexico is primarily derived from infiltration or precipitation or seepage from intermittent surface flow in streams. The rate of precipitation recharge varies from area to area in response to changes in climatic, soil, and topographic conditions. Most precipitation

recharge likely occurs during periods of snowmelt or prolonged rainfall when water is available for percolation and evapotranspiration rates are small. In eastern New Mexico, the aquifer supplied water to about 320,000 acres of irrigated farm and ranch land from about 6,000 wells. Groundwater withdrawal during the 1980s was about 519,000 acre-feet per year. The Ogallala will continue to be the lifeblood of the area only if it is managed properly.

According to the 2018 New Mexico State Water Plan Part II: Technical Report, the most dramatic and problematic groundwater mining is occurring in eastern New Mexico where the Northeast New Mexico and Lea County planning regions are dependent on the Ogallala/High Plains aquifer. **The region is projected to have about 26% of the supply needed to meet 2060 demands under average water supply conditions due to the rapid depletion of the Ogallala/High Plains aquifer.**

Water level declines are greater than 5 feet per year (ft/yr) in the most heavily pumped areas, and the saturated aquifer thickness than 50 to 150 ft thick. A recent study on the lifetime projections for the Ogallala/High Plains aquifer in east-central New Mexico (Rawling and Rinehart, 2018) concludes that many areas, are below the 30-ft threshold of saturated thickness necessary for a viable aquifer, and most of the remaining area has a projected lifetime of less than 10 years.

New Mexico has two primary agencies that have the responsibility for administering water throughout the state, the Office of the State Engineer (OSE) and the Interstate Stream Commission (ISC). The New Mexico Environment Department (NMED) has lead supervision over water quality. New Mexico has a type of water law called the "prior appropriation" system, which is found in most western states. This system gives preference in times of water shortage to those water rights with the oldest priority dates. The priority date of a water right is the date the water was first put to "beneficial use" on the land.

Currently, The Office of the State Engineer (OSE) maintains an administrative policy over water rights in which the user must put that water to "beneficial" use. A water right must continue to be used in perpetuity in order for the appropriator to maintain control of that water right. Historically, the conservation of water has not been categorized as "beneficial use." This administrative philosophy has resulted in a condition in which water rights holders cannot conserve their water rights in times of plenty for use in times of prolonged shortage. In 2003, the legislature modified the New Mexico statutes to include some provisions to promote water conservation without fear of loss of right due to failing to apply the water to beneficial use.

Additionally, NMSA 1978 72-5-28 (G), indicates that "periods of nonuse when water rights are acquired and placed in a state engineer-approved water conservation program, by an individual or entity that owns water rights, a conservancy district..., a soil and water conservation district..., and acequia or community ditch association ..., an irrigation district ..., or the interstate stream commission shall not be computed as part of the four-year forfeiture period.

NMSA 1978, Section 3-27-2 (2009) was amended in 2009 to prohibit municipalities from condemning water sources used by, water stored for use by, or water rights owned or served by an acequia, community ditch, irrigation district, conservancy district, or political subdivision of the state.

According to *Bulletin 164: Climate Change in New Mexico Over The Next 50 Years: Impacts On Water Resources*, the average temperature increase over much of the Eastern Plains is projected to be roughly a degree lower than the state average, but evapotranspiration is likely to experience among the greatest change in the state, leading to higher aridity. This is a consequence of projected decreases in precipitation during spring and summer, when evapotranspiration is highest. Summer precipitation is projected to decrease slightly over the next 50 years, but autumn and winter precipitation may increase slightly—with much uncertainty inherent in these projections. If an increase in extreme precipitation events does occur (regardless of changes to total precipitation), the Eastern Plains will be the most strongly impacted part of New Mexico by far, even more so than the mountainous regions.

Given the relatively flat topography of the Eastern Plains, some of the most dramatic climate relate impacts will be related to vegetation and soils. The drylands of eastern New Mexico are dominated by soils that are especially vulnerable to wind deflation (erosion) when subjected to extended drought-caused losses in vegetation and/or agricultural modification. The response of spatially extensive regions of eastern New Mexico to the next 50 years of climate and environmental change is most likely desertification, accompanied by significant increases in dust emission, as well as increased erosion on hillslopes.

The State Water Plan Act NMSA §72-14-3.1 (C)(6) states that a water plan should [also] “include a drought management plan designed to address drought emergencies and promote strategies for the prevention of drought-related emergencies in the future. The Plan should include the following:

- Support the use of recycled water or alternative sources of water in place of potable water when economically feasible.
- Encourage agricultural water conservation methods that do not increase consumptive use and advance soil health.
- Encourage water conservation measures to be developed in local and regional water plans and in building codes.
- Coordinate efforts to promote conservation among local, state, federal, and tribal governments.

Federal Reservation: The doctrine of federally reserved water rights was developed over the course of the 20th Century. Simply stated, federally reserved rights are created when the United States sets aside land for specific purposes, thereby withdrawing the land from the general public domain. In doing so, there is an implied, if not expressed, intent to reserve an amount of water necessary to fulfill the purpose for which the land was set aside. Federally reserved water rights are not created, or limited, by State law.

Regulation of pollution and water quality for the Nation’s waters has been achieved through a partnership between the state and federal government. This relationship has been successful because of the recognition that not all waters need to be subject to federal jurisdiction and that states have the primary responsibility of regulating waters within their individual boundaries. This federal-state partnership was established under the 1972 Clean Water Act (CWA).

On August 29, 2023, the U.S. Environmental Protection Agency (EPA) and Department of the Army (the agencies) announced a final rule amending the **2023 definition of “waters of the United States.”** The amendments conform with the U.S. Supreme Court’s May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. While EPA’s and Army’s 2023 rule defining “waters of the United States” was

not directly before the Supreme Court, the decision in Sackett made clear that certain aspects of the 2023 rule are invalid. Therefore, the agencies have amended key components of the nation's waters consistent with the Supreme Court's decision while advancing infrastructure projects, economic opportunities, and agricultural activities.

Exclusions from "Waters of the United States:"

The amendments to the January 2023 Rule do not change the eight exclusions from the definition of "waters of the United States" - The exclusions are:

- Prior converted cropland, adopting USDA's definition and generally excluding wetlands that were converted to cropland prior to December 23, 1985.
 - Waste treatment systems, including treatment ponds or lagoons that are designed to meet the requirements of the Clean Water Act.
 - Ditches (including roadside ditches), excavated wholly in and draining only dry land, and that do not carry a relatively permanent flow of water.
 - Artificially irrigated areas, that would revert to dry land if the irrigation ceased.
 - Artificial lakes or ponds, created by excavating or diking dry land that are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - Artificial reflecting pools or swimming pools, and other small ornamental bodies of water created by excavating or diking dry land.
 - Waterfilled depressions, created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction operation is abandoned and the resulting body of water meets the definition of "waters of the United States."
 - Swales and erosional features (e.g., gullies, small washes), that are characterized by low volume, infrequent, or short duration flow.
 - **Goal:** SQSWCD asserts that water is the most significant resource within its boundaries and believes water is necessary for life as well as essential for promoting economic well-being. Ensuring water quality and quantity is an investment but provides a high return. Water is critical for agriculture, residents, industry, and many service activities. SQSWCD will provide proactive support for corrective and conservation practices and programs to protect the public and conserve, expand, extend, and develop beneficially the water resources of the District.
- SQSWCD will assure the policies and actions of the local, state and federal government in matters of water resources protection fully takes effect to the benefit of that resource.
- **Guidance:** All New Mexico water laws and State and federal laws that regulate water quality regarding point and nonpoint sources of water pollution.

- **Objectives:**

The District will

1. Coordinate with partners, local governments, and organizations chartered for the benefit of the Ogallala, to instigate a means to maintain and improve the Ogallala Aquifer. As well as encourage locally driven collaborative solutions.
2. **Will continue it's long-term groundwater monitoring project.** In the first phase of the project, preliminary data was gathered for characterization of the local aquifer(s) and included baseline static water levels for all the wells, and water chemistry for wells still in use. In the second phase, four pressure transducers were installed in 2021 in three wells adjacent to playas and one well that is not near any playas or drainages. These transducers measure water level twice daily. **Future efforts include expansion of the number of wells being monitored both for biannual static water level measurements and for installation of pressure transducers, as well as expanded sampling for water chemistry and tritium.**
3. Follow the 50-Year Water Action Plan (Action B3) - "Fully fund and implement the Aquifer Mapping and Monitoring Program at the New Mexico Bureau of Geology and Mineral Resources and establish an integrated statewide groundwater monitoring network in order to better understand complex aquifers and track changes" in order to ensure SQSWCD has the information needed for it's water supply issues.
4. Water reuse can extend water supplies, but it requires additional infrastructure and more sophisticated systems. To stay current with this effort the District will follow the 50-Year Water Action Plan (Action B1) "create a program framework and guidelines for desalination and wastewater treatment, reuse" and (Action B2) "Develop and implement comprehensive water reuse rules for potable and non-potable reuse of treated wastewater." This can be an additional solution for the water shortages within SQSWCD boundary.
5. Promote the investment in rainwater harvesting systems to capture, divert, and store precipitation for landscape irrigation, domestic use, and aquifer recharge;
6. Promote research that helps cooperators transition to lower water requiring crops or livestock based forage systems or improved dryland crop production systems.
7. Promote brush control to remove species that reduce recharge to aquifers. If Prescribe fire is used, inform cooperators and local agencies of the New Mexico Prescribed Burning Act (NMSA 1978, Section 68-5-1 *et seq.*) and subsequent amendments.
8. Coordinate with local and state agencies on the transfer of irrigation water rights to meet present and future agriculture, domestic and industrial water requirements and the resulting erosion from the abandoned lands.
9. Promote and provide technical assistance to SQSWCD agriculture producers with conservation related programs, both state and federal, that implement agricultural water enhancement activities or agricultural land for the purposes of conserving surface and ground water and improving water quality.

10. Promote technology that helps prevent evaporation from drink tanks i.e. shade balls and other technology.

4.2-2 SOIL

Soil is not an inert growing medium – it is a living and life-giving natural resource. It is teeming with billions of bacteria, fungi, and other microbes that are the foundation of an elegant symbiotic ecosystem.

Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. Soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. Healthy soil cannot be determined by measuring a single outcome so indicators are used. Indicators are measurable properties of soil or plants that provide clues about how well the soil can function. Indicators can be physical, chemical, and biological properties, processes, or characteristics of soils. They can also be morphological or visual features of plants.

Dynamic soil quality is how soil changes depending on how it is managed. Management choices affect the amount of soil organic matter, soil structure, soil depth, and water and nutrient holding capacity. Soils respond differently to management depending on the inherent properties of the soil and the surrounding landscape.

The soil health foundation consists of five principles: 1) Keeping soil covered; 2) Minimizing soil disturbance; 3) Maximizing biodiversity; 4) Maintaining a living root; and 5) Integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species (like earthworms).

Soil plays a strong role in determining how New Mexico's diverse landscapes will respond to climate. Soil cover acts like a sponge, holding in water that falls as rain or snow. Soil enhances other processes such as infiltration of water and aquifer recharge. Loss of vegetation due to warmer climate increases erosion, in many cases caused by wind, where soils that are not well developed are easily damaged. In the Eastern Plains, large amounts of dust will be produced (*Bulletin 164 - Impacts on Water Resources*).

Goal: Provide proactive support for corrective and conservation practices and programs to conserve, protect, and beneficially develop the soil resources of the District. It is also the goal of SQSWCD to institute and manage vegetation and landscape projects that will mitigate blowing dust. Windblown dust in this area occurs both from natural and man-made sources.

- **Objectives:**

1. Ensure the policies and actions of the local, state, and federal government in matters of soil resource protections meet the standards the District has set for the benefit of the resource.
2. Encourage land managers and landowners to seek technical assistance to mitigate surface disturbance and to facilitate soil and water conservation. Reestablish native or other desired vegetation. Further the progress of the establishment of permanent vegetative cover on poor quality cropland from which water rights have been removed.

3. Accelerate projects such as brush control which support the natural replenishment of our grass base.
4. Actively promote reduce till or no till systems. Seek funding opportunities for no till equipment appropriate for the District landowners.
5. Seek funding opportunities to continue conducting soil health tests. The goal is to gather a baseline throughout the entire District.
6. Impart vital and necessary technical information to renewable energy companies, Quay County and district cooperators on layout, design, and maintenance to reduce erosion and how to implement drainage structures on county, private, and energy company's access roads.
7. Provide technical information on native grass reseeding of any disturbed soils including but not limited to access road construction, transmission lines, pipelines and wind energy pads.
8. Coordinate with renewable energy companies to make certain the companies understand they are responsible for natural resource best management practices within District boundaries that consist of; soils, erosion control, and stormwater management.

4.2-3 AGRICULTURE

“The land, waters, and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state.” 73-20-26. Legislative determination; purpose of act. (1965), Chapter 73 Article 20, Sections 25 through 49, New Mexico Statutes, 1978, Annotated.

As stated in the *Resilience in New Mexico Agriculture* report, “Agriculture in New Mexico faces unprecedented challenges to the health of the industry. New Mexico has an aging population of farmers and ranchers, increasing pressure on water and other natural resources, rising costs for land, energy, equipment and other production needs, unsustainable farmer and rancher incomes, and complex regulations. Incremental approaches are not sufficient to address the systemic challenges facing agriculture in our state.”

In order for New Mexico agriculture to remain resilient for years and generations to come, the state must:

- Create common ground regarding agriculture policies
- Advance economic growth and stability for communities
- Address fundamental water and land use challenges
- Support young people pursuing careers in agriculture
- Promote agriculture's contributions to health-related solutions for consumers and communities.

SQSWCD's Land Use Plan comprehensively provides the policies that allow for the continuation of farming and ranching with all the associated and supporting businesses that have made lands within SQSWCD so productive. All agriculture is dependent on proper soil erosion control, flood prevention, wildlife and species management, which are the responsibilities of this District.

- **Goal:** It is the intent of SQSWCD to take an assertive attitude to the perpetuation and enhancement of Agriculture as well as protect water rights as well as conserve water within the District. Also, to maintain

the overarching belief this District has to recognize the value of rural communities beyond their economic contributions. District cooperators believe deeply in the cultural value of agriculture, and its contribution as a source of rural vitality and family unity.

- **Guidance:** Sections 47-9-1 through 47-9-7 NMSA 1978 “Right to farm Act” - The purpose of the Right to Farm Act is to conserve, protect, encourage, develop and improve agricultural land for the production of agricultural products and to reduce the loss to the state of its agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance.

Essential activities to sustain New Mexico's agricultural future:

- Conserve and enhance natural resources • Stabilize costs and revenue to sustain a viable living wage • Transition effectively to the new generation of farmers and ranchers • Expand market opportunities • Garner public and policymaker support.
- **Objectives:**
 1. Take a lead in communicating and seeking government to government endeavors with other districts for the benefit of Agriculture.
 2. Pursue policy standards that result in zero net loss attrition of the farmland base.
 3. Advocate during periods of drought or other emergencies, local, state, and federal agencies shall work closely with the District, the NM State Engineer, and other local, state, and federal agencies to address availability of water for critical needs, specifically agriculture and municipal uses.

4.2-4 RANGE AND GRASSLAND

Stewardship of vegetation composition, cover, and production is the foundation of sustainable rangeland management. When applying principles and making changes, it is crucial that a cooperator determines what information is scientifically correct and what methods are feasible to implement on their lands. Despite many alternative methods like “take half, leave half,” adaptive multi-paddock grazing (AMP) or management intensive grazing (MIG), rangeland management principles are limited, never changing and withstand the test of time. The District recommends a cooperator should rely on the 5 range management principles as a starting point for what management methods will be most effective on their lands:

- Adaptive management - always be ready to adjust to environmental and industry changes and monitor rangelands throughout the year.
- Implementing a grazing plan - A grazing system to follow throughout the grazing season to ensure rangeland is being properly grazed (at the right time, for the correct duration, with the proper number of animals) and receiving an adequate recovery period to promote the native plant community.
- Ecosystem biodiversity - Biodiversity is defined as the variability among living organisms.
- Residual forage - a critical part of the ecosystem, it protects the soil from water and wind erosion, promotes water infiltration, reduces water loss from evaporation, maintains soil temperature, increases soil nutrients and helps sequester carbon dioxide in the soil.

- Climate ready - have a plan in place for the “what if” scenarios

Diversity of grasses, provide a wider range of nutrients for grazers, promotes a diversity of soil microorganisms, and are more resilient to the stress of drought. Carbon in the soil can be increased by at least 25 percent. For every one percent increase, the soil can hold an additional 60,000 gallons of water per acre. Some of this water re-enters the water table and about 70 percent goes into the aquifer. More water retention also means cooler soil—critical in a dry climate.

Effective, economically sustainable native invasive species management systems must be based on available biological and ecological peer reviewed science of the specific species. The District will also rely upon knowledge gained from past successes and failures in managing native invasive species, woody native shrubs and other noxious range and grassland species.

- **Goal:** Support and facilitate the continued use of private and state lands for the production of livestock. Also, work to increase productivity of rangeland to increase and/or maintain Animal Unit Month ("AUMs") to maximum sustainable levels on rangeland within District boundaries as well as maintain and enhance desired plant communities for the benefit of watersheds, wildlife, water quality and livestock grazing.
- **Guidance:** Land management plans, programs, and initiatives should provide that the amount of domestic livestock forage, expressed in animal unit months, for permitted, active use as well as wildlife forage, be no less than the maximum number of animal unit months sustainable by range conditions in grazing allotments, based on “on-the-ground” and scientific analysis. This is essential to the proper operation of the District. Livestock producers do more than contribute to the economic stability of the community, which helps the District, but are also the primary entities that help to implement the Districts programs. Any reductions in domestic livestock animal unit months must be scientifically based upon rangeland conditions.
- **Objective:**
 1. Work closely with local, state and federal agencies to identify areas for brush management and control, based on wildlife habitat needs, without compromising overall rangeland vegetation productivity. Promote and develop treatment projects for brush management on lands that have invasive species such as but not limited to; mesquite, salt cedar, and cholla.
 2. Encourage the use of coordinated range management plans (allotment management plans or coordinated activity plans) for each grazing allotment that allow for the flexibility and updating of management during the ten-year term of the grazing permit. (*i.e.* water development; brush control; re-seeding, fencing, salting plans, herding plans and grazing systems).
 3. Support management of rangelands to maintain and enhance desired plant communities for the benefit of watersheds, wildlife, water quality, and livestock grazing.
 4. Support and facilitate range improvement projects to benefit rangeland, soil and water resources.
 5. Coordinate with federal and state agencies on any planned or potential federal or state land acquisition.

tion within SQSWCD boundaries. Encourage federal and state land management agencies to focus on lands currently under its responsibility.

4.2-5 LIVESTOCK AND WILDLIFE

The production of livestock in Quay County is necessary to the area economy, tax base, and the livelihood of the ranching / farming businesses and related industries and it is also vital to the well-being and continued health of natural resources on state and private lands. SQSWCD shall strive to protect our farming / ranching heritage, as it is a primary foundation of the custom and culture of the District.

- **Goal:** SQSWCD will place an emphasis on the management of vegetation and landscape projects that will 1) maximize grassland development for livestock and wildlife, collectively, 2) expand water supplies and systems to support such populations on an availability standard, 3) encourage research to determine benefits of more complex grazing practices, 4) work with the New Mexico Department of Game and Fish (NMDGF) to elevate quality hunt opportunities, and 5) educate the general public of the benefits and the symbiotic relationships of livestock and wildlife in this desert environment 6) Encourage wildlife management practices that sustain wildlife resources and habitat without measurably degrading other multiple use activities or private property rights.

SQSWCD will urge land management agencies to: upon termination of a grazing permit, livestock permittee will be compensated for the remaining value of improvements such as water infrastructure, or be allowed to remove such improvements that permittee made on his or her allotment.

SQSWCD will coordinate with the land management agencies to ensure permanent increase or decreases in grazing allocations reflecting changes in available forage will be based on the vegetative type of available forage and applied proportionately to livestock or wildlife based on their respective dietary need.

- **Guidance:** Agriculture in New Mexico has evolved into a multi-billion dollar industry, and it remains a significant economic driver in all parts of the state. The eastern regions of New Mexico collectively account for 83 percent of the total agricultural impact in the state.
- **Objectives:**
 1. Support opportunities for livestock grazing on private, and state lands. This includes advocating for the protection of equitable property rights, science-based land stewardship, and promotion of Best Management Practices for the improvement and continued use of all rangelands within the District.
 2. Coordinate with the NMDGF to develop specific wildlife harvest targets, quality hunts, depredation mitigation, and future management plans to unite private / agency endeavors.
 3. Promote and coordinate water and water distribution system installation and infrastructure improvements to benefit all wildlife and livestock health and welfare within the District.
 4. Recommend all governmental land management agencies cooperate with the District and the agriculture industry to define desired plant communities on all lands within the District.

5. Work with all landowners and land managers to increase productivity of rangeland to increase and/or maintain AUMs that maximum sustainable levels on rangeland. Any grazing AUMs that are placed in a suspended use category should be returned to active use when range conditions improve.

4.2-6 ENERGY/RENEWABLES

All energy sources have some effect on our environment. Energy resources occur without regard to whether the land is private, state, or federal ownership. These resources have, and continue to, provide economic benefits for the citizens within the jurisdictional boundaries of the District.

The District recognizes that effective development of its abundant energy resources is necessary to the economic well-being of the county, the state, and the nation. Energy resource extraction is also consistent with the local history, custom, and culture.

Goal: SQSWCD will coordinate with and expect all energy companies to inform the District of all planned, developed or updated energy / renewable energy projects within the District's jurisdictional boundaries. SQSWCD expectations are that all energy projects will not cause direct or indirect harm to rangeland, soil, air quality, and water resources as well as wildlife habitat. Protect the rights of landowners and surface owners so that mineral development can continue consistent with the District's mandate to conserve soil and water resources.

- **Guidance:** Sections 73-20-25 through 73-20-48 NMSA 1978, considered and resolved by legislative action, the purpose of the Act declared that 1) the land, waters and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state; 2) the improper use of land and related natural resources, soil erosion, and water loss result in economic waste in New Mexico through the deterioration of the state's natural resources, and; 3) appropriate corrective and conservation practices and programs must be encouraged and executed in New Mexico to conserve and develop beneficially the soil, water and other natural resources of the state.
- **Objectives:**
 1. Impart vital and necessary information to renewable energy companies **to avoid unnecessary new roads and minimize fragmentation.**
 2. Coordinate with renewable energy companies to make certain the companies understand they are responsible for natural resources best management practices within District boundaries and develop a plan that consists of but not limited to; **soils, erosion control, water usage/conservation, range disturbance, invasive species and suppression of wildland fire caused by the company's equipment.** The company will also be informed that they need to provide a wildland fire suppression plan to the local RFD/VFD as well. **Instruct the renewable and /or energy companies that the District will need a copy of the plan covering all of the above.**

3. Coordinate with the appropriate agencies and energy developer to avoid locating energy facilities/ transmission lines in areas identified as having a demonstrated high risk to wildlife, water resources, historical sites and agriculture land uses.
4. Ensure the disturbed sites are immediately stabilized to conserve soil. Ensure that interim vegetation is planted to hold soils, including the use of sterile, nonnative seeds, and that the final reclamation is done on disturbed areas by using native species when seeding or planting.
5. Provide technical support to the appropriate cooperators to ensure that pipeline corridors, transmission lines, facilities, and other rights-of-ways are properly maintained to minimize soil and natural resource damage.
6. **Abandoned energy sites or any construction conducted by the energy company** - If a renewable energy company abandoned developed sites, the District will be notified a reasonable amount of time prior to the company leaving and a plan will be needed by the District to ensure best management practices occur.
7. Energy companies **will not** introduce and spread non-native invasive species. To avoid this, the contractors will follow SQSWCD policies for non-native invasive/noxious plant control. Contractors should inspect and clean their vehicles and equipment arriving from areas with known invasive species issues. Contractors should also use locally sourced topsoil when applicable and monitor for and rapidly remove non-native invasive/noxious weeds at a minimum least annually.

4.2-7 WILDFIRE

Wildfire is a function of fuel loads and drought. Both issues are part of the resource management aims and obligations of the District's responsibilities. Detrimental and beneficial outcomes of fire regimes need to be determined on the greater landscape within SQSWCD boundaries

SQSWCD recognizes that intense wildfires harm organic material in the soils, increase soil erosion and pollute water, and cause significant damage to rangeland and forested resources, water treatment facilities, irrigation systems, and the loss of fish and wildlife habitat. When forested or rangeland areas are not managed and fuel loads build up, the wildfire managed under a "planned and unplanned" policy can lead to catastrophic consequences.

IN New Mexico the notion of what constitutes a "large" wildfire has grown substantially over the past decade. Since 2000 the size of the largest fire recorded in New Mexico has more than quintupled. Wildfire severity is increasing and fires are spreading at unprecedented rates.

Planned and unplanned ignitions can achieve land and resource management goals. However, fire management should be only one tool in the restoration process and should be integrated with all other land management activities.

- **Goal:** SQSWCD will support the right of local citizens to protect their private property from wildfire. Planned and unplanned ignitions can achieve land and resource management goals. However, fire management should be only one tool in the restoration process and should be integrated with all other land management activities.

The Districts long term plans, policies and projects rely upon proper vegetative management on all lands, private, state and federal. Therefore, it is imperative that when the District identifies lands with excessive vegetation that increase the opportunity for wildfires, that it will coordinate with those agencies and landowners to assist in reducing the potential hazard.

- **Guidance:** The District recognizes wildfire is a function of fuel loads and drought. Both issues are part of the resource management aims and obligations of the District's responsibilities.
- **Objectives:**
 1. Support training for all volunteer fire department member in the basics of wildland firefighting. To accomplish this the District will support NM State Forestry Division and any other land management agency with suppression responsibilities, in the training of VFD and RFD fire departments. The ultimate objective is to have a majority of volunteers that are qualified and can be allowed to have unencumbered access to all lands within the District.
 2. Through coordination with land management agencies and landowners, the District will assist in developing policies for grazing rest prescriptions related to either wildfires or prescribed burns on a site-specific basis taking into account the needs of the vegetation and flexibility to meet the needs of the landowner and to protect excessive soil erosion. Vegetative treatments and use of livestock grazing shall be used to keep fuel loads within appropriate limits
 3. Assist in developing plans and projects that strike a balance of beneficial use of fire and the detrimental effects of intense wildfire.
 4. Continue to support area Community Wildfire Protection Plans; Quay County Fire Departments and RFD/VFDs.
 5. Post-fire grazing will not be limited when monitoring and evaluation produces relevant, accurate data that demonstrates grazing will not unduly harm the range.
 6. Encourage development of vegetation treatments and use of livestock grazing to keep fuel loads within appropriate limits.

4.2-7 (a) POST WILDFIRE RESTORATION OBJECTIVES:

1. Coordinate existing programs in New Mexico that can help communities and landowners implement post-fire response e.g. fire rehabilitation and weed control, on private, municipal and other lands that do not qualify for a local, regional, or national Burn Area Emergency Response (BAER).
2. Coordinate with Farm Service Agency (FSA) to assist landowners with post natural disaster losses e.g. drought, flood, fire, freeze, tornadoes, pest infestation. For example, FSA provides various program assistance; Livestock Forage Program which compensates eligible livestock producers for grazing losses due to fire or the Emergency Conservation Program which provides emergency funding and technical assistance to rehabilitate farmland damaged by natural disasters.

3. Coordinate with NRCS with the Emergency Watershed Protection (EWP) program following natural disasters.
4. Coordinate with the NRCS NM Burned Area Initiative which is part of the NRCS' Environmental Quality Incentives Program (EQIP). The Burned Area Initiative is designed to help landowners restore conservation practices destroyed in fires or by off-site fire impacts.
5. Coordinate with New Mexico Environmental Department (NMED) with free testing of private domestic wells to check for contamination after a wildfire.

4.2-8 CUSTOM AND CULTURE

The people of Quay County have traditionally earned their livelihood from activities associated with natural resources. The economy of the County in the past and today depends on the availability and utilization of natural resources. Directly or indirectly, the majority of the people employed in Quay County depend on farming / ranching, recreation, and other activities related to the availability of natural resources. Collectively, the past and future represent the customs and culture of the District.

- **Goal:** To coordinate all activities in a manner that will protect the quality of customs and culture derived from historical and environmental values; that, where appropriate, will use and protect all lands in a condition that will promote land health which contributes to community economic freedom and security. The District will undertake such actions in a manner that serves all citizens with a high standard of ethical and objective leadership.

- **Guidance:**

Due Process and Protection of Private Property

- The U.S. Constitution created a form of government characterized by:
 - A. Limited powers granted to the federal government, with all unenumerated powers being reserved to the respective states.
 - B. Separation of those limited powers into legislative, judicial, and executive branches.
 - C. Creation of a process where the branches act to check and balance the power of the other branches.
 - D. Guarantee rights of due process and just compensation when private property is taken for public use.
 - E. Grant of authority to Congress to make rules and regulations governing federal property.

SQSWCD intends to maintain balance within the actions of state government in land use planning within the District.

- **Objective:**

1. Protect private property and interests in private property and promote the continuation of private economic pursuits.
2. Respect private property rights and consider the effects of policies, regulations, and federal and state decisions on these rights.
3. Recognize that the protection and preservation of privately owned land is desirable and necessary in Quay County.
4. Work with the county and communities to reduce the conversion of prime farmland and rangeland to urban and industrial use. Encourage retaining Class I land for agricultural purposes.

4.2-9 RIPARIAN

Simply stated, riparian areas are the transitional zones between aquatic and upland environments. However, this discussion becomes infinitely more complicated as specific details are examined and disciplines are considered. "Functionally, the riparian zone is the area of direct interactions between aquatic and terrestrial environments" (Swanson et al.; 1982).

Other definitions say "Riparian areas are zones bordering lakes, reservoirs, closed playa lakes, potholes, springs and seeps, wet meadows, vernal pools, and ephemeral, intermittent, or perennial streams. They are of prime importance to water quality, water quantity, stream stability, and fisheries and wildlife habitat. Abundant water, forage, and habitat attract a proportionately greater amount of use and conflict than their small area would indicate. They are vital to the livestock grazing industry and many are also well suited for development as high quality agricultural farmland." See map in Appendix

In New Mexico and within this District, channelization has severely limited, and in most cases eliminated the water/land relationship that would normally have allowed the establishment of riparian vegetation along drainage corridors which in turn support healthy wetland systems. Instead there are degraded banks (that result in severe soil erosion and sediment build up in rivers and reservoirs) and the loss of habitat for fisheries, waterfowl and wildlife.

- **Goal:** Maintain, restore, improve, and protect riparian areas so that they are in proper functioning condition for their productivity, biological diversity, and sustainability.
- **Guidance:** "Riparian ecosystems" are defined as an assemblage of plant, animal, and aquatic communities whose presence can be either directly or indirectly attributed to stream induced or related factors (Kauffman and Krueger 1984). Riparian ecosystems support a greater diversity of plants and animals than upland habitats. A significant percentage of all wildlife in the Southwest uses riparian habitat (Thomas et al. 1979, Johnson et al. 1977).
- **Objectives:**
 1. Promote the perpetuation and enhancement of riparian habitat. Encourage a coordinated approach

when establishing riparian and upland management plans and encourage the use of Best Management Practices.

2. Educate the value of balanced watershed management which includes riparian habitat.
3. Promote riparian management based on the *New Mexico Non-Native Phreatophyte/Watershed Management Plan*.

4.2-10 THREATENED, ENDANGERED / SENSITIVE SPECIES

The keystone of good environmental stewardship lies in a healthy resource base. Endangered and threatened species, as well as all plants and all animals, depend on the intricate balance of stable ecological, economic and social functions of the immediate local community.

The Endangered Species Act ("ESA"), [Addendum Tab No. 12 at 37-59, 16 U.S.C. §§1531-1541], protects individual species of plants and animals wherever they occur when it is determined that the continued existence is threatened or endangered. [Addendum Tab No. 12a at 37, 16 U.S.C. §1533]. The ESA provides for listing of species through rule making, 16 U.S.C. §1533(a), and within a year after listing, the identification of critical habitat for the species.

Prior to making a determination whether a species is threatened or endangered, the federal agency is required to take into account "those efforts, if any, being made by any State or foreign nations, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or any other conservation practices, within any area under its jurisdiction; or on the high seas." (16 U.S.C. 1533(b)(1)(A)) This includes a review of the Districts plans, policies and projects. The Districts plan should be reviewed in its entirety as inherent in every policy is the objective to conserve species.

Additionally, it is the policy "of the Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species." (16 U.S.C. 1531(c)(2)) The SQSWCD has holds specific authority to manage water resources within our jurisdiction, and therefore, all actions carried out under the Endangered Species Act must be coordinated with the District to resolve any water resource issues that may arise.

Agencies are to consider the best available objective peer review science when making a decision whether to list, but economic and social impacts are to be considered in the designation of critical habitat. [Addendum Tab No. 12a at 38, 16 U.S.C. §1533(a)(3)(A).]

Critical habitat designations must take local socioeconomic impacts into account. Areas may be excluded as critical habitat based upon economic impacts unless the failure to designate the area as critical habitat would result in extinction of the species. Area designations that preclude the District from carrying out its soil erosion and floodwater management projects will cause economic harm to the community and shall not be included as critical habitat unless essential to the survival of the species.

Once a species is listed, it cannot be "taken," which is broadly defined to mean any direct harm to the species

or harassment, which, in turn, includes disruption in activities or loss of critical habitat.[Addendum Tab No. 12c-ii at 59, 50 C.F.R. §17.3]. If a ‘take’ is likely to occur on private land, the landowner must secure a takings permit under Section 10 of the ESA, and often does so under a habitat conservation plan which also requires compliance with NEPA. [Addendum Tab No. 12c at 59].

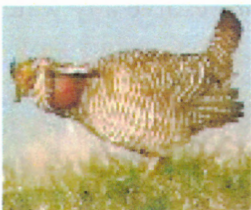
The Natural Heritage New Mexico Program gathers, organizes, and disseminates information on unique, rare, threatened, and endangered species.

The ESA is the basis for several planning mechanisms:

- Recovery plans for listed species that set population and viability goals and define when a species might be eligible for delisting;
- Reintroduction plans, which govern introductions of listed species as part of a recovery effort;
- Habitat conservation plans which allow land uses on private lands to go forward even when a ‘take’ of a listed species may occur; mitigation of adverse effects is usually part of the plan;
- Conservation plans or agreements, often between states and FWS, adopt management actions to avoid listing the species;
- Candidate conservation agreements, under which a landowner commits private land to management for the species, may also have ‘safe harbor’ provisions that assure that the landowner need not take any additional mitigation measures if the species is listed.

The above plans and agreements require some form of NEPA process, which provides an opportunity for public involvement.

The following species have been listed within the jurisdictional boundaries of SQSWCD. The status of any listed species must be known and all additions or removals must be coordinated with the District.



Lesser Prairie Chicken (LEPC) - Quay County - UPDATE - The effective date of the final rule that published on November 25, 2022, at [87 FR 72674](#), and corrected on December 2, 2022, at [87 FR 73971](#). On November 17, 2022 the U.S. Fish and Wildlife Service (Service), announced they recommend the listing of two Distinct Population Segments (DPSs) under the Endangered Species Act of 1973 (Act), as amended, for the lesser prairie-chicken (*Tympanuchus pallidicinctus*), a grassland bird known from southeastern Colorado, western Kansas, eastern New Mexico, western Oklahoma, and the Texas Panhandle. The Service determine threatened status for the Northern DPS and **endangered status for the Southern DPS.**

The effects of climate change was not included in the geospatial model but the USFWS anticipates significant influences on future LEPC populations. Climate change in the Southern Great Plains is expected to result in generally warmer and drier weather with more frequent and more intense droughts. These changes are likely to directly impact LEPC reproduction and survival rates and possibly cause large scale shifts in the vegetation community. USFWS greatest concern is the increase in the effects of long-term droughts that place stress on

LEPC populations and can put them at high risk of extirpation depending on the intensity and duration of the time period with below normal levels of precipitation accompanied by above normal temperatures.

Previously, February 2014 the U.S. Fish and Wildlife Service (FWS) and the Western Association of Fish and Wildlife Agencies (WAFWA) signed a range-wide Oil and Gas Industry Candidate Agreement with Assurances for the Lesser Prairie Chicken. The FWS also released an accompanying environmental assessment. The agreement was entered into with the understanding that cooperation between the five states of the lesser prairie chicken - New Mexico, Texas, Oklahoma, Kansas and Colorado - and FWS undertake conservation action for the species.

The LEPC working group in New Mexico, composed of local, State, and Federal officials, along with private and commercial stakeholders, published the Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico in August 2005.

Since the CCA and CCAA were finalized in 2008, 43 oil and gas companies have enrolled a total of 1,964,163 ac (794,868 ha) in the historical range of the LEPC. In addition, 72 ranchers in New Mexico and the New Mexico Department of Game and Fish have enrolled a total of 2,055,461 ac (831,815 ha). The New Mexico State Land Office has enrolled a total of 406,673 ac (164,575 ha) in the historical range of the LEPC. The CCA and CCAA have treated 79,297 ac (32,090 ha) of mesquite and reclaimed 154 abandoned well pads and associated roads. CEHMM has also removed 7,564 ac (3,061 ha) of dead, standing mesquite, and has another 12,000 ac (5,000 ha) scheduled in the upcoming two years.

Within the Southern DPS - **Renewable Energy** – Projects that would result in “take” of the lesser prairie-chicken can be enrolled in the recently approved Renewable Energy Habitat Conservation Plan (HCP) for the lesser prairie-chicken which covers the majority of the five-state range or project proponents can work with the Service to develop their own HCP. The Service has also been contacted by other interested parties who are considering developing additional programmatic HCPs which, if finalized, would provide additional options in the future. **Grazing** – Landowners or land managers operating within the lesser prairie-chicken range in the Southern DPS who are enrolled in their state specific CCAAs already have regulatory assurances for those covered activities as provided through those agreements. If a landowner is not enrolled in an existing CCAA but is interested in Endangered Species Act coverage, they can work with the Service to develop their own HCP.

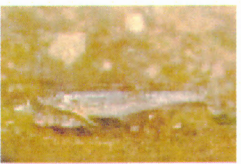
Comment/Expectations: LEPC has been listed as an endangered species by the Service and a Species of Greatest Conservation Need by the NM Game and Fish. According to the Services’s 2023 Recovery Outline for the Northern and Southern DPS of the LEPC Action Plan the Service strives to “work with actions agencies to fully understand potential negative effects of their discretionary federal actions and working collaboratively to implement actions to minimize those effects and SQSWCD believes farming and ranching techniques will be drastically altered, reducing production and income for the families of crop and livestock producers and violates the SQSWCD Land Use Plan by causing an economic effect on rural communities of which they are a part.

Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District’s statutory responsibilities.



Southwestern Willow Flycatcher [E] Quay County Small; usually a little less than 6 inches in length, including tail. The species historical range included Arizona, California, Colorado, New Mexico, Texas, Utah. In 2017 the Service announced a finding on a petition to delist (remove from the List of Threatened and Endangered Species) the southwestern willow flycatcher (*Empidonax traillii extimus*) as an endangered species under the Endangered Species Act of 1973, as amended (Act). This finding also constitutes a 5-year re-

view for the southwestern willow flycatcher. After review of the best available scientific and commercial information, the Service decided delisting the southwestern willow flycatcher is not warranted at that time. to conserve the flycatcher in areas of its breeding range, the subspecies and its habitat remain susceptible to various water and land management and other related threats. **Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District's statutory responsibilities.**



Peppered Chub [E] Quay County - The peppered chub is a small freshwater fish species historically found in New Mexico, Colorado, Kansas, Oklahoma, and Texas, which is now extirpated from all but six percent of its historical range. The Service, States (New Mexico and Texas), and academic partners are conducting monitoring efforts, and plans for captive propagation efforts are underway, but none are finalized yet. The designation of critical

habitat has little effect on private lands, according to the Service. This designation provides protection under section 7 of the Act and requires only Federal agencies to consult with the Service and ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. Because of this, the Service hopes that they can continue their partnerships with local landowners with in the historical range of the peppered chub. **Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District's statutory responsibilities.**



Arkansas River Shiner (Notropis girardi) (Native pop.) [T] Quay County - The Arkansas River shiner (ARS) is a small, streamlined minnow with a small, dorsally flattened head, rounded snout, and subterminal mouth. A non-native introduced population of the species found in the Pecos River, New Mexico did not meet the requirements of the US-FWS 1996 Distinct Population Segment (DPS) policy (61 FR 4722). Therefore, the species

is listed as threatened only in the Arkansas River basin, while the Pecos River, NM population does not receive ESA protections. This is due, in part, to the NM population not being essential to the species' recovery and potential conflict with recovery and conservation of the Pecos bluntnose shiner (*Notropis simus pecosensis*).

New Mexico has a total of 235 species Greatest Conservation Need (SGCN). Species considered for inclusion as SGCN had to occur within the state and meet at least one of the following conditions:

- Declining: Species that have experienced substantial long-term declines in habitat or numbers.
- Vulnerable: Species in which some aspect of their life history and ecology makes them disproportionately susceptible to decline within the next 10 years. Factors include, but are not limited to, concentration to small areas during migration or hibernation; low reproductive rates; susceptibility to disease, inability to respond to changing climate conditions, habitat loss, wildfire, and overexploitation for anthropogenic purposes.
- Endemic: Species that are limited to New Mexico.
- Disjunct: Species that have populations geographically isolated from other populations of the same species and are thereby disproportionately susceptible to local decline or extirpation.
- Keystone: Species that are crucial to the integrity and the functioning of their ecosystems. These species may represent more value to conservation of biological diversity than the size of their population or their distribution would suggest.

The following Species of Greatest Conservation Need/Threatened or Endangered are listed by the NM State Game Commission within SQSWCD boundaries: Least Shrew (*Cryptotis para*) [T&SGCN], Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*) [SGCN], Bald Eagle (*Haliaeetus leucocephalus*) [T&SGCN], Peregrine Falcon (*Falco peregrinus*) [T&SGCN], Baird's Sparrow (*Ammodramus bairdi*) [T&SGCN], Least Tern (*Sterna antillarum*) [E&SGCN], Common Ground Dove (*Columbian passerine*) [E&SGCN], Common Black Hawk (*Buteogallus anthracinus*) [T&SGCN], Southwest Willow Flycatcher (*Empidonax traillii eximius*) [E&SGCN], Gray Vireo (*Vireo vicinior*) [T&SGCN], Plain-bellied Water Snake (*Nerodia erythrogaster*) [E&SGCN], Peppered Chub (*Macrhybopsis tetranema*) [T&SGCN], Arkansas River Shiner (Native pop.) (*Notropis girardi*) [E&SGCN], Paper Pondshell (*Uterbackia imbecillis*) [E&SGCN].

- **Goal:** Participate in all decisions and proposed actions, including NEPA procedures for an Environmental Assessment ("EA") or Environmental Impact Statement ("EIS"), which affect the District, regarding sensitive, threatened, or endangered species recovery plans, introduction or reintroductions, habitat conservation plans, conservation agreements or plans, or candidate conservation agreements. The matter of listing or removal of endangered species must be done on the basis of active coordination with the District.

Guidance: The District will work to continuously coordinate with the FWS for the purposes of: 1) being aware of all matters of listing that affect its administrative boundaries and 2) allowing the District to evaluate the impact of all decisions on its water resources, economic impact and conservation measures.

- **Objectives:**

1. Promote coordination between FWS and the District.
2. Advocate management of the entire ecosystem, recognizing the full array of interactions within an ecosystem, including humans, rather than considering single issues, species, or ecosystem services in isolation.
3. Promote critical habitat improvement. However, there must be allowances for traditional uses such as but not limited to grazing, irrigation, and wood cutting. The actions must benefit both the endangered species and the other user's customs and culture.

4. Address the impact of all actions with the statutory requirements of the ESA including the impact to the managed value of History.
5. Oppose the introduction or transplant of threatened and endangered species within the boundaries c SWSWCD, unless the District consents and it is done pursuant to specific terms and conditions that avoid disrupting existing land uses.
6. Coordinate with federal agencies in all decisions and proposed actions, including NEPA procedures for an Environmental Assessment (“EA”) or Environmental Impact Statement (“EIS”), which affect the District, regarding sensitive, threatened, or endangered species recovery plans, introduction or reintroductions, habitat conservation plans, conservation agreements or plans, or candidate conservation agreements.
7. Call for proponents of protection, recovery activities, and other threatened and endangered and sensitive species programs finance the activities, including public involvement and compensation to the affected landowners.
8. Expect that federal agencies respect distinctions between special status species (Species of Greatest Conservation Need, etc.) and those listed under the ESA.
9. Support delisting of species once population goals set out in recovery plans are achieved.

4.2.11 PREDATOR CONTROL

- **Goal:** Encourage management of predatory animals to minimize damage to private property and wildlife and protect the local economy and tax base to maximize the viability of the agricultural community.
- **Guidance:** Federal agencies are obligated to coordinate their planning processes with local government land use plans. 43 C.F.R. §1610.3-1(a). The National Environmental Policy Act (NEPA) requires federal agencies to “discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned).

Congress intended NEPA to apply to every action that significantly affects the quality of the human environment and the thresholds of local conditions are best observed and measured by local expertise.

Considering the existing climate conditions in New Mexico, the effects on the population dynamics of fauna and flora are critical to the conditions affecting the community as well as the endangered species.

- **Objective:**
 1. Support control of predators, rodents and insects, which are disease-bearing vectors that are a recognized threat to public health.
 2. Support predator control based on a balance between the best objective science available, economics, and logistics, evaluated on a case-by-case basis using currently recognized methods of predator control that remain as viable options for predator control, until new and better technology offers new options.

3. Government reintroduction and-introduction plans should provide for compensation to livestock operators for actual value of loss, including replacement cost, including direct and incidental expenses relating to the loss, and prompt payment thereof.

PREDATOR POLICY

- SQSWCD shall, to the maximum extent possible, participate in all decision processes associated with management actions relating to all threatened and endangered species, including candidate species.

4.2-12 OUTREACH AND EDUCATION

- **Goal:** It is the goal of SQSWCD is to garner the support, understanding, and backing of our community and partner agencies and promote “Raise a generation of youth that understands the importance of agriculture.”
- **Guidance:** Participate, foster and have a more active role in local, state, and federal relationships and understanding.
- **Objective:**
 1. Continue promoting SQSWCD programs through newsletters, newspaper ads and articles, and informational brochures.
 2. Disseminate and promote partner agencies programs through above listed avenues.
 3. Continue to support Agriculture programs that promotes SQSWCD custom and culture.
 4. Support and promote SQSWCD programs at County Fairs and any other local, state or national activity pertinent to the SQSWCD.

4.2-13 WATERSHED MANAGEMENT

Many of New Mexico’s Watershed are in an unhealthy state. This condition has reached a critical state in many watersheds, including 1) unnaturally high density of woody vegetation in some forest types, in woodlands and grasslands, and in riparian communities, 2) a degradation of biodiversity, including an increase of invasive species and noxious weeds such as salt cedar and thistles, and 3) fragmentation and deterioration of wildlife habitat. Results of these trends include susceptibility to catastrophic wildfire, compromised watersheds and decreased water supply, accelerated erosion, desertification, and other unwanted symptoms of ecological degradation. These unhealthy conditions have been created over time by factors including changes in settlement patterns, disruption by human intervention of natural processes such as fire and flooding, unsustainable use, and natural climatic variations.

Healthy watersheds provide many ecosystem functions including, but not limited to: erosion / sedimentation control, increased biodiversity, soil formation, wildlife habitat, water storage, water filtration, flood control,

food, timber, recreation, nutrient cycling, and carbon storage. These resources are essential to our social, environmental, and economic well-being.

Healthy watersheds are frequently undervalued when making land use decisions. Due to the complexity of natural systems and economic precedents, it is difficult to assign a dollar amount to a particular ecosystem service. However, there is a large body of research and evidence to support the fact that an intact healthy watershed avoids costly restoration and provides long-term economic opportunities and jobs.

- **Goal:** SQSWCD strongly supports the critical need for healthy watersheds that provide a reliable supply of high-quality water and other benefits for New Mexico by implementing long term, collaborative, comprehensive watershed-scale restoration projects that foster ecosystem function and resilience.
- **Guidance: Implement the 2024 Memorandum of Agreement (MOA) between the District and NM State Land Office (SLO).** Also support the following efforts: 1) community-based collaboration with stake holders; 2) integration of Best Management Practices that incorporate peer-reviewed science; 3) expedited implementation of watershed and landscape restoration and enhancement projects at the site-specific and landscape levels; and 5) Management should be directed towards achieving desired future conditions e.g. promoting active range management on suitable lands across all jurisdictional lands.
- **Objective:**
 1. Promote and support increasing partnerships and exchanges between natural resource agencies, local government and private landowners on watershed restoration projects.
 2. Provide technical assistance in the development of plans for ecologically beneficial conservation projects to take place on state trust lands located within the boundaries of the District (“Project Plans”).
 3. Support the maximum area of land possible to be excluded from single-use or restrictive-use designations, so that excluded land is available for active and sound management on public lands.
 4. Conduct restoration activities in a manner that minimizes impacts to native and sensitive plants, animals, and their habitats by using the most current and up-to-date best management practices.
 5. Develop collaborative strategies to promote a dynamic patchwork mosaic of riparian and wetland vegetation and habitat as water availability and community priorities allow.

4.2-14 CLIMATE CYCLES/WEATHER MODIFICATION (aka: Cloud Seeding/Water Enhancement) -

Cyclical variations in the Earth’s climate occur at multiple time scales, from years to decades, centuries, and millennia. Cycles at each scale are caused by a variety of physical mechanisms. Climate over any given period is an expression of all of these nested mechanisms and cycles operating together.

While paleo-ecological evidence clearly demonstrates major past shifts in climate-vegetation across New Mexico’s landscapes, the large magnitude and rapidity of recent and projected change is thought to be un-

precedented during the past years, and probably much longer. Recent chronic warming, along with increasingly unprecedented episodes of extreme hotter drought stress, have already driven substantial changes in New Mexico vegetation over the past twenty years, foreshadowing massive reorganization of vegetation distributions and cover if current warming trends continue as projected (e.g., Jennings and Harris; Triepke et al.).

Since water-related environmental stresses occur in parallel with water supply shortages for people, such change could lead to increasing conflict between management of declining water availability for human use (e.g., irrigation) versus “wild” water retained for the maintenance of historical ecosystem values and services (e.g., Grant et al., 2013).

However, through collaborative translational approaches (Jackson 1627 2021) and thoughtful anticipatory planning (Bradford et al., 2018), there is also the potential for creative adaptive conservation strategies that increase resilience to water shortage for both humans and our linked environmental systems.

- **Goal:** SQSWCD strongly believes Climate must be considered when developing strategies to protect and enhance the value of resources. Determining whether a strategy should prioritize investments in high vulnerability areas or not depends on the expected success of the investment. For example, a water resource investment in an area with high vulnerability may not persist as long as an investment in a low vulnerability area. On the other hand, an investment in an area with a high vulnerability rating may have much greater benefit to resources than if it were to occur in a low-hazard area.
- **Guidance:** In 2006, the New Mexico Office of the State Engineer convened a group of scientists who produced a report entitled *The Impact of Climate Change on New Mexico's Water Supply and Ability to Manage Water Resources* (Watkins et al., 2006). The report was generated in recognition that the most significant impact of climate on New Mexico was going to be the negative impact on the state's water resources. Watkins et al. (2006).
- **Objectives:**
 1. The District will support its neighboring District's efforts to advance the proper use of weather modification technologies through research, reaching out to higher education institutions in New Mexico to partner with the District on cloud seeding.
 2. The District will support efforts to continue to improve understanding of the targeted cloud and precipitation processes in planned modification.
 3. Impacts associated with climate include prolonged droughts, increased fire frequency and severity including severe habitat alteration caused by fires and increases in invasive species. The District will educate, inform and promote best management practices that help minimize the effects.
 4. Addressing climate through coordination with local, state and federal agencies to insure the District's policies are considered when dealing with the District's resource concerns.
 5. Continue to grow their shade ball program in an effort to mitigate livestock water trough evaporation.

4.2-15 PLAYA LAKES

Playa lakes are one of the most important types of ephemeral or temporary wetlands in the arid and semi-arid Southwest. Despite their ephemeral nature, these critical water resources recharge groundwater supplies for growing population; provide habitat for migratory birds, waterfowl, and other wildlife; and support a growing wildlife-related recreational industry. In the Southern High Plains region, playas are the principal source of surface water and are important recharge zones for the freshwater Ogallala aquifer, to communities, ranchers, and rural agricultural economies.

Unfortunately, changes in land use, primarily as a result of agriculture and urbanization, have led to widespread losses and deterioration of playa wetlands. Common impairments to playas include sedimentation (considered to be the greatest threat), pits (deep holes excavated in the basin of the playa), and contamination from urban and agricultural runoff, all of which affect the integrity and function of playas.

Changes in land use, primarily as a result of agriculture and urbanization, have led to widespread losses and deterioration of playa wetlands (Haukos and Smith, 1994; Hall et al., 2004). Common impairments to playas include sedimentation (considered to be the greatest threat) and contamination from urban and agricultural runoff, both of which affect playas' integrity and function. Urban expansion has resulted in many playas being filled, leveled, and bisected with roads. Urban playas have often been used to store stormwater accumulation from urban runoff. Common contaminants in urban runoff include heavy metals, hydrocarbons, pesticides, fertilizers, and chemicals associated with automobiles. Because urban playas rarely have adequate vegetative buffers to intercept surface runoff, these pollutants become concentrated in playas, and can contaminate underlying aquifers.

Playa Lakes exist within their own individual watersheds with the playa situated in the lowest point. Because of their distinct setting and are lined with a layer of hydric clay soil, it is critical we consider the effects of land use and management practices within the entire playa watershed to avoid the reduction of hydrologic function.

- **Goal: Active management of playas is needed to maintain and improve their functions, groundwater recharge, and the critical wetland habitat they provide.** Coordinate with area natural resource managers and landowners on the prioritization of playa restoration and conservation activities.
- **Objectives:**
 1. Continue and promote the District's **Playa Restoration Cost Share Program**. The purpose is to restore playa wetlands within the borders of SQSWCD. The activities are expected to provide benefits to wildlife, including migratory waterfowl and provide additional water to the underlying aquifer.
 2. Promote playa condition assessments and identification of threats through a selection criteria that include factors such as present condition, ecological importance, future threat outlook, cost of restoration, likelihood of successful restoration, educational potential and specific use requirements.
 3. Promote and implement restoration practices e.g. establish native vegetation buffers, remove accumulated sediment, fill drainage features, and restore water flow.
 4. Inform the landowners and county workers that water is the primary driver influencing most natural

functions in playas, any future modifications within the catchment area e.g. road maintenance, terrace rebuilds, and ditch clean outs can impact playa health and have to be carefully planned.

5. Promote that playas can be part of a grazing system and that landowners should plan careful utilization rates and monitored so the vegetation height within the buffer can continue to effectively trap sediment. Also promote that playas within cropland can also be grazed as part of an effort to utilize crop residues for forage.
6. Promote interdisciplinary and collaborative scientific studies between geologists, hydrologists, ecologists, biologists, agronomists, and land-conservation scientists. This will likely result in knowledge that best fills the remaining gaps needed to predict recharge rates beneath playas.

A Continuing Process . . .

The District recognizes that this Plan is dynamic and adaptive and will be updated as needed. It will require the cooperation, work and dedication of many District residents and partners. The ongoing planning will include consideration of historic, current and future land uses in SQSWCD. This Land Use Plan shall be the basis for enforcing FLPMA and NFMA consistency requirements for public land management.

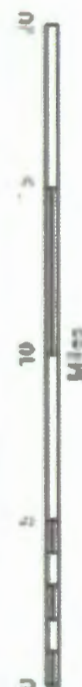
Land and natural resources are essential to local industry and residents. It is the policy of the District that the design and development of all federal and state land dispositions and acquisitions, including boundary adjustments or land exchanges, be carried out for the benefit of individual property owners and to the benefit of the citizens within the boundary of SQSWCD.

REFERENCES:

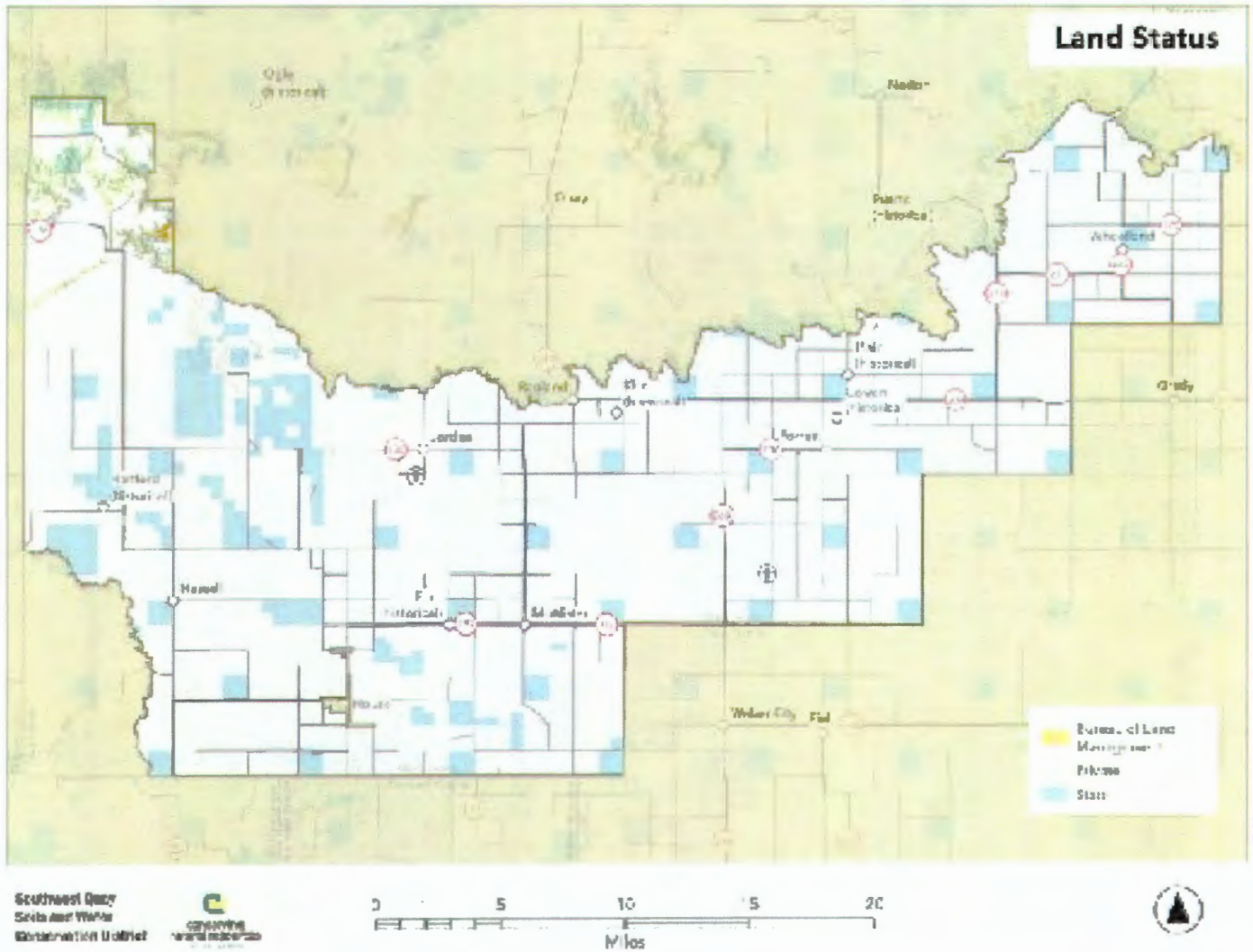
1. Soil and Water Conservation District Act (2009)
2. Revised Statute 2477 of 1866
3. Desert Land Act of 1877
4. Carey Act of 1894
5. National Irrigation Act of 1902
6. The Reclamation Act of 1905
7. Antiquities Act of 1906
8. Stock-Raising Homestead Act of 1916
9. General Exchange Act of 1922
10. Recreation and Public Purposes Act of 1926
11. Fish and Wildlife Coordination Act of 1934
12. Taylor Grazing Act of 1934
13. Soil Conservation and Domestic Allotment Act of 1935
14. Bankhead-Jones Act of 1937
15. Mineral leasing Act for Acquired Lands of 1947
16. Watershed Protection and Flood Prevention Act of 1954
17. Townsite Act of 1958
18. Multiple-Use, Sustained Yield Act of 1960
19. Food and Agriculture Act of 1962
20. Wilderness Act of 1964
21. Land and Water Conservation Act of 1965
22. Water Resources Planning Act of 1965
23. Community Planning and Resource Development-Soil Surveys 1966
24. Noxious Plant Control Act of 1968
25. National Environmental Policy Act of 1969
26. Environmental Quality Improvement Act of 1970

27. Water Bank Act of 1970
28. Mining and Minerals Policy Act of 1970
29. Federal Insecticide, Fungicide, and Rodenticide Act of 1971
30. Rural Development Act of 1972
31. Agriculture and Consumer Protection Act of 1973
32. Endangered Species Act of 1973
33. Disaster Relief Act of 1973
34. Federal Land Policy and Management Act of 1976
35. Payment in Lieu of Taxes Act, 1976
36. Resource Conservation and Recovery Act of 1976
37. Energy Research and Development Administration Act of 1977
38. Food and Agriculture Act of 1977
39. Soil and Water Conservation Act of 1977
40. Clean Water Act of 1977
41. Renewable Resources Extension Act of 1978
42. Water Research and Development Act of 1978
43. Public Rangelands Improvement Act of 1978
44. Weather Control and Precipitation Enhancement rule, pursuant to the New Mexico Weather Control Act.
45. The Impact of Climate Change on New Mexico's Water Supply and Ability to Manage Water Resources (Watkins et al., 2006)

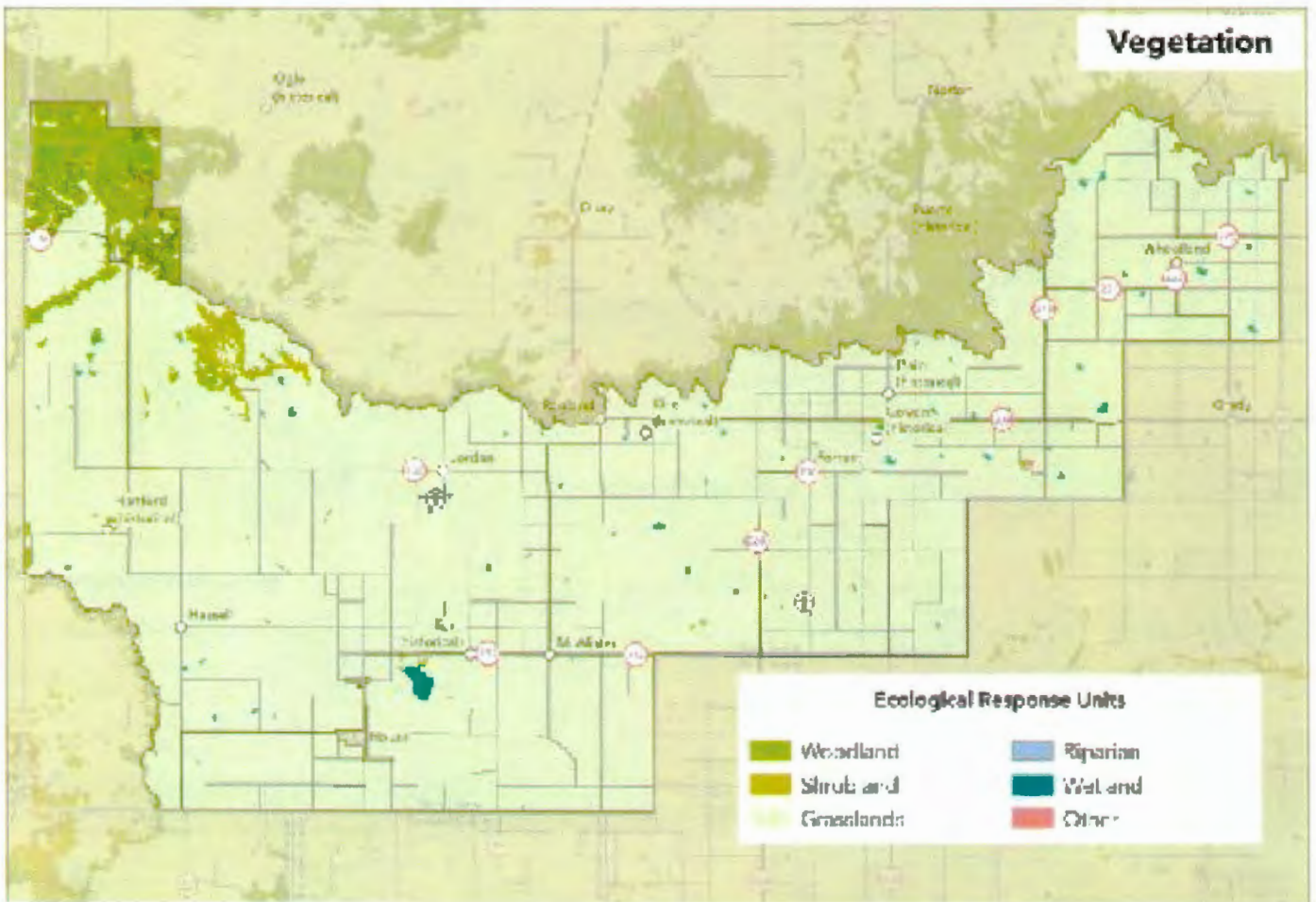
ACRONYM	FULL DESCRIPTION OR NAME
BLM	Bureau of Land Management (Associated with U. S. Department of Interior)
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH	Critical Habitat (Associated with ESA)
CWA	Clean Water Act
DOI	Department of the Interior
EA	Environmental Assessment (Associated with NEPA)
EIS	Environmental Impact Statement (NEPA)
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FDQA	Federal Data Quality Act
FLPMA	Federal Lands Policy and Management Act of 1976
FOIA	Freedom of Information Act (Federal Government)
FONSI	Finding of No Significant Impact
FR	Federal Register
FS	Forest Service (associated with USDA)
IPRA	Inspection of Public Records Act (New Mexico)
LUP	Land Use Planning
MUSYA	Multiple Use Sustained Yield Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act (U.S. Forest Service)
NHPA	National Historic Preservation Act (NHPA)
NRCS	Natural Resources Conservation Service (U. S. Department of Agriculture agency)
OMA	Open Meetings Act
Sec. 10	Section 10 of the ESA
Sec. 7	Section 7 of the ESA
Section 7	Section under the ESA requiring federal agencies to consult with FWS when any action may affect a listed species.
SHPO	State Historic Preservation Officer
SOPA	Schedule of Proposed Actions (Forest Service)
SWCD	Soil & Water Conservation District
TGA	Taylor Grazing Act
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WOTUS	Waters of the US (associated with Clean Water Act)

[illegible]

**Southeast Quoy
Siti and Warden
Conservation District**



Status	Acres	Percentage
BLM	354.9	0.1%
Private	378,954.0	89.3%
State	45,273.4	10.7%
Total	424,582.3	100.0%



Southwest Qey
Seined Riller
Conservation Unit

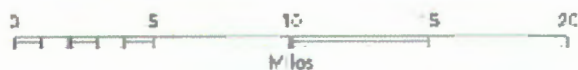


Vegetation

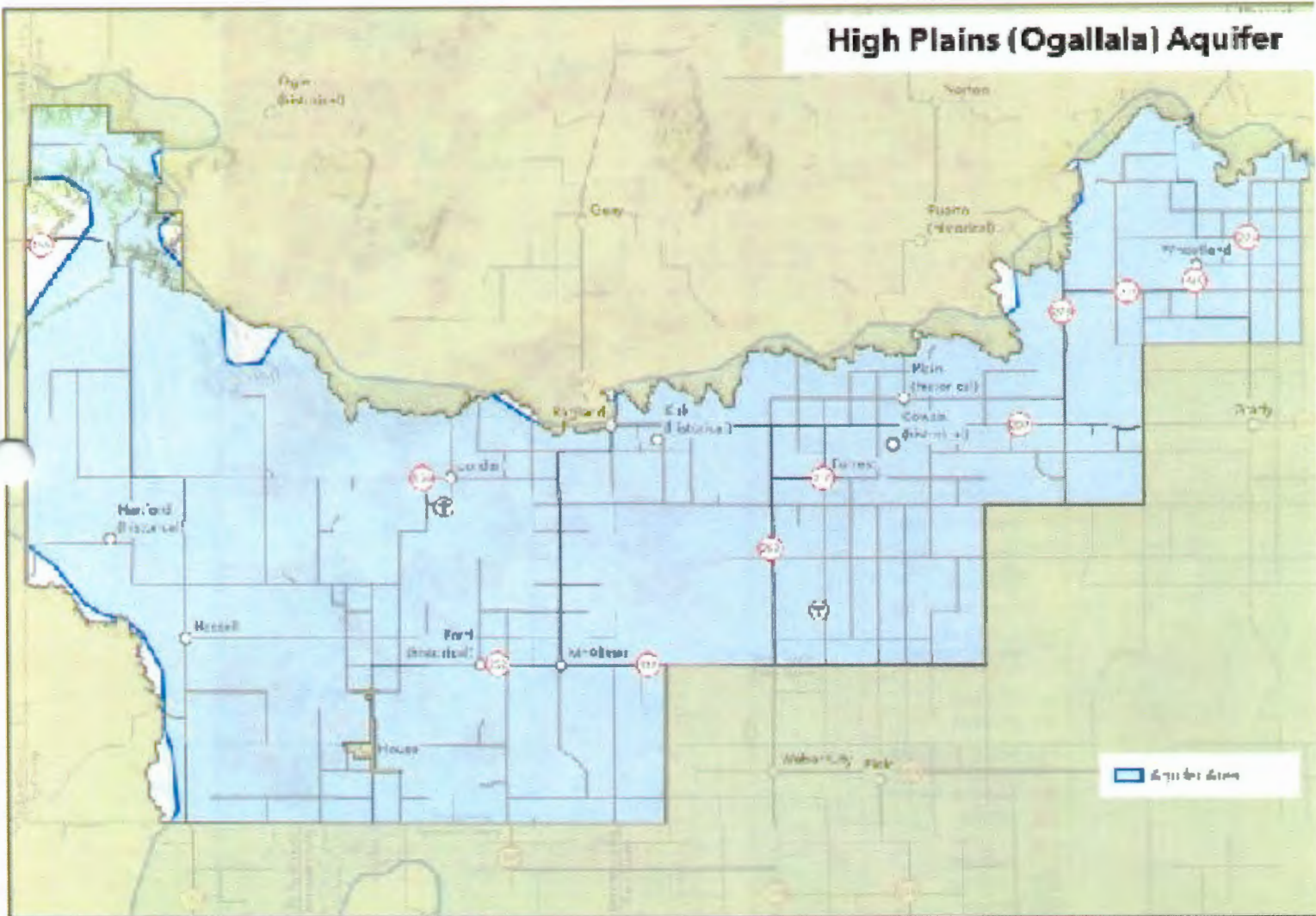
EPA Level IV Ecoregions

- 25th Llano Estacado
- 26th Savanna
- 26th Conchosa
- 26th Pecos River

25a. Uare Estacado
26a. Samand
27a. San Blas
28a. Conchas
29a. Pucos



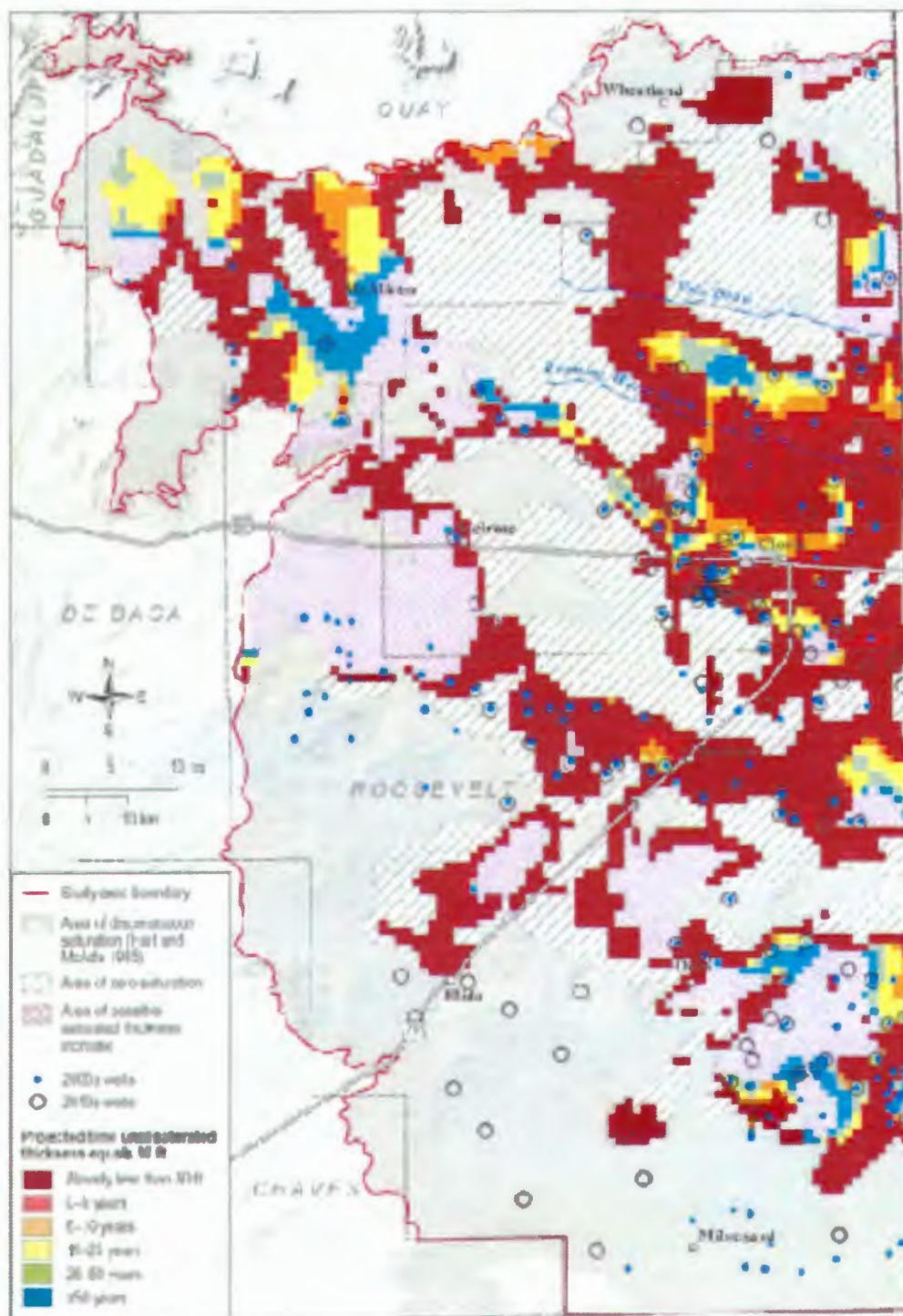
High Plains (Ogallala) Aquifer



Source: Quzy
Soi and Water
Conservation District



LIFETIME PROJECTIONS-HIGHPLAINS-AQUIFER



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES: BULLETIN 162

Projected lifetime of the High Plains aquifer until a threshold saturated thickness of 30 ft is reached, based on water-level declines over the 20-year interval from the 1990s to 2010s decade. This represents the usable lifetime for large-scale irrigated agriculture. "Already less than 30 ft" indicates areas where saturated thickness is already below the threshold.

Summary - New Mexico Bureau of Geology and Mineral Resources (Bulletin 162)

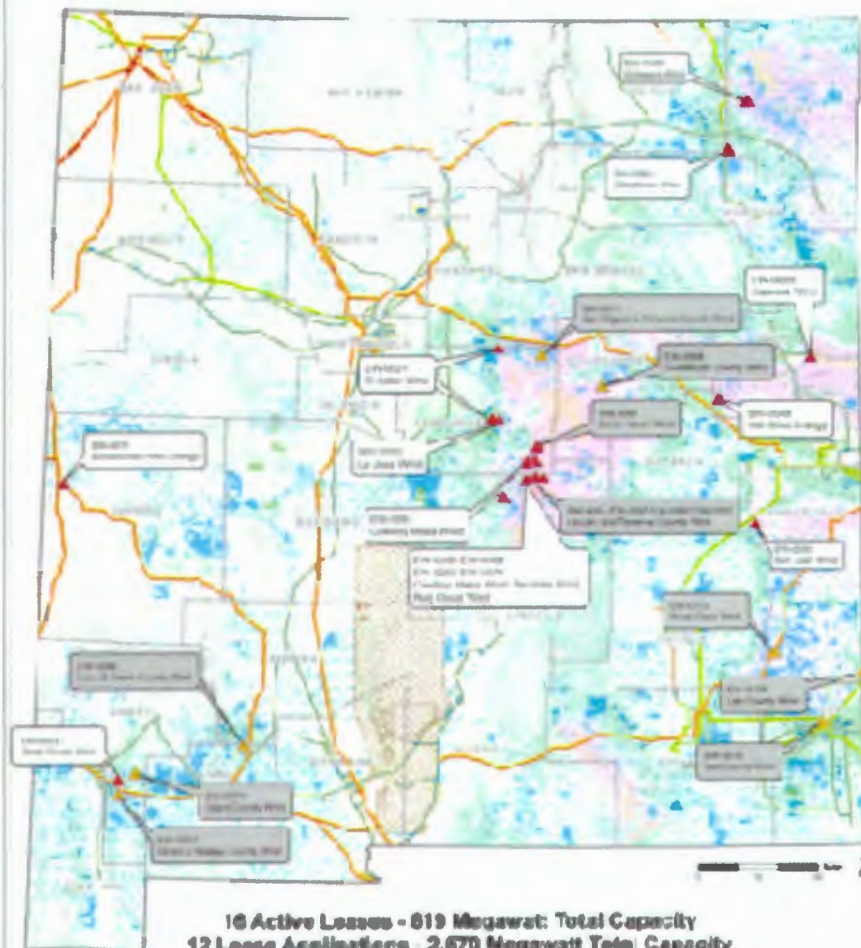
Several thousand water-level measurements spanning over 50 years, from over a thousand wells, were used to create aquifer lifetime projections for the HighPlains aquifer in east-central New Mexico. Lifetime projections were based on water-level changes and decline rates calculated over ten- and twenty-year intervals.

Projected lifetimes were calculated until a 30-ft saturated thickness threshold is reached, and until the aquifer is completely dewatered. The former condition represents the usable life of wells for large-scale irrigated agriculture. The latter condition represents the lifetime of the aquifer for domestic and low-yield municipal wells. It can be considered a "worst-case scenario," as water levels may decline less rapidly if less groundwater is pumped for agricultural uses after the 30-ft threshold is reached. The resulting maps show the projected lifetime graphically, along with progressively enlarging areas of zero saturation.

A confidence factor based on the kriging variance was used to estimate the reliability of the results, and indicates that projected areas of water-level and saturated thickness decline are more reliable than projected areas of increases in these quantities. Comparisons of projected lifetimes from past time periods to present conditions show reasonable agreement, with most differences attributable to spatial and temporal variation in well networks and differences between actual decline rates and those projected into the future from any given time period in the past. The spatial distribution of projected lifetimes matches well with lifetime projections made across the state line in the Texas Panhandle.

The situation in New Mexico appears similar to conditions in the High Plains aquifer across northwest Texas and western Kansas. Much of the region already has insufficient saturated thickness for the operation of large-capacity irrigation wells. Even when considering the lifetime of the entire thickness of the aquifer, projected lifetimes across much of the study area are a few tens of years or less.

Wind Energy Projects on NM State Trust Land



16 Active Leases - 819 Megawatt Total Capacity
12 Lease Applications - 2,670 Megawatt Total Capacity

Wind Status (and PWSave)	Wind Speed in Miles		Electric Transmission Zone
Wind Legend	mph	km/h	
Active	1.0-1.9	1.6-3.0	Under 100 Hz
Forecasting	2.0-3.9	3.2-6.3	100-245 Hz
Active Wind turbines	4.0-14.5	6.4-23.4	245-287 Hz
Wind turbine Approaching	14.6-15.7	23.5-25.3	288-300 Hz
Wind Turb. (Lowest)	15.8-16.9	25.4-27.3	Within 5000 Miles
Forecasting (Lowest)	17.0-17.9	27.4-29.3	
Forecasting (Lowest)	18.0-19.9	29.0-31.9	
Forecasting (Lowest)	20.0-21.9	32.2-35.2	
Forecasting (Lowest)	22.0-23.9	35.4-38.4	
Forecasting (Lowest)	24.0-25.9	38.6-41.6	
Forecasting (Lowest)	26.0-27.9	41.8-44.8	
Forecasting (Lowest)	28.0-29.9	44.9-47.9	
Forecasting (Lowest)	30.0-31.9	48.0-51.0	
Forecasting (Lowest)	32.0-33.9	51.2-54.2	
Forecasting (Lowest)	34.0-35.9	54.4-57.4	
Forecasting (Lowest)	36.0-37.9	57.6-60.6	
Forecasting (Lowest)	38.0-39.9	60.8-63.8	
Forecasting (Lowest)	40.0-41.9	64.0-67.0	
Forecasting (Lowest)	42.0-43.9	67.2-70.2	
Forecasting (Lowest)	44.0-45.9	70.4-73.4	
Forecasting (Lowest)	46.0-47.9	73.6-76.6	
Forecasting (Lowest)	48.0-49.9	76.8-79.8	
Forecasting (Lowest)	50.0-51.9	80.0-83.0	
Forecasting (Lowest)	52.0-53.9	83.2-86.2	
Forecasting (Lowest)	54.0-55.9	86.4-89.4	
Forecasting (Lowest)	56.0-57.9	89.6-92.6	
Forecasting (Lowest)	58.0-59.9	92.8-95.8	
Forecasting (Lowest)	60.0-61.9	96.0-99.0	
Forecasting (Lowest)	62.0-63.9	99.2-102.2	
Forecasting (Lowest)	64.0-65.9	102.4-105.4	
Forecasting (Lowest)	66.0-67.9	105.6-108.6	
Forecasting (Lowest)	68.0-69.9	108.8-111.8	
Forecasting (Lowest)	70.0-71.9	112.0-115.0	
Forecasting (Lowest)	72.0-73.9	115.2-118.2	
Forecasting (Lowest)	74.0-75.9	118.4-121.4	
Forecasting (Lowest)	76.0-77.9	121.6-124.6	
Forecasting (Lowest)	78.0-79.9	124.8-127.8	
Forecasting (Lowest)	80.0-81.9	128.0-131.0	
Forecasting (Lowest)	82.0-83.9	131.2-134.2	
Forecasting (Lowest)	84.0-85.9	134.4-137.4	
Forecasting (Lowest)	86.0-87.9	137.6-140.6	
Forecasting (Lowest)	88.0-89.9	140.8-143.8	
Forecasting (Lowest)	90.0-91.9	144.0-147.0	
Forecasting (Lowest)	92.0-93.9	147.2-150.2	
Forecasting (Lowest)	94.0-95.9	150.4-153.4	
Forecasting (Lowest)	96.0-97.9	153.6-156.6	
Forecasting (Lowest)	98.0-99.9	156.8-159.8	
Forecasting (Lowest)	100.0-101.9	160.0-163.0	
Forecasting (Lowest)	102.0-103.9	163.2-166.2	
Forecasting (Lowest)	104.0-105.9	166.4-169.4	
Forecasting (Lowest)	106.0-107.9	169.6-172.6	
Forecasting (Lowest)	108.0-109.9	172.8-175.8	
Forecasting (Lowest)	110.0-111.9	176.0-179.0	
Forecasting (Lowest)	112.0-113.9	179.2-182.2	
Forecasting (Lowest)	114.0-115.9	182.4-185.4	
Forecasting (Lowest)	116.0-117.9	185.6-188.6	
Forecasting (Lowest)	118.0-119.9	188.8-191.8	
Forecasting (Lowest)	120.0-121.9	192.0-195.0	
Forecasting (Lowest)	122.0-123.9	195.2-198.2	
Forecasting (Lowest)	124.0-125.9	198.4-201.4	
Forecasting (Lowest)	126.0-127.9	201.6-204.6	
Forecasting (Lowest)	128.0-129.9	204.8-207.8	
Forecasting (Lowest)	130.0-131.9	208.0-211.0	
Forecasting (Lowest)	132.0-133.9	211.2-214.2	
Forecasting (Lowest)	134.0-135.9	214.4-217.4	
Forecasting (Lowest)	136.0-137.9	217.6-220.6	
Forecasting (Lowest)	138.0-139.9	220.8-223.8	
Forecasting (Lowest)	140.0-141.9	224.0-227.0	
Forecasting (Lowest)	142.0-143.9	227.2-230.2	
Forecasting (Lowest)	144.0-145.9	230.4-233.4	
Forecasting (Lowest)	146.0-147.9	233.6-236.6	
Forecasting (Lowest)	148.0-149.9	236.8-239.8	
Forecasting (Lowest)	150.0-151.9	240.0-243.0	
Forecasting (Lowest)	152.0-153.9	243.2-246.2	
Forecasting (Lowest)	154.0-155.9	246.4-249.4	
Forecasting (Lowest)	156.0-157.9	249.6-252.6	
Forecasting (Lowest)	158.0-159.9	252.8-255.8	
Forecasting (Lowest)	160.0-161.9	256.0-259.0	
Forecasting (Lowest)	162.0-163.9	259.2-262.2	
Forecasting (Lowest)	164.0-165.9	262.4-265.4	
Forecasting (Lowest)	166.0-167.9	265.6-268.6	
Forecasting (Lowest)	168.0-169.9	268.8-271.8	
Forecasting (Lowest)	170.0-171.9	272.0-275.0	
Forecasting (Lowest)	172.0-173.9	275.2-278.2	
Forecasting (Lowest)	174.0-175.9	278.4-281.4	
Forecasting (Lowest)	176.0-177.9	281.6-284.6	
Forecasting (Lowest)	178.0-179.9	284.8-287.8	
Forecasting (Lowest)	180.0-181.9	288.0-291.0	
Forecasting (Lowest)	182.0-183.9	291.2-294.2	
Forecasting (Lowest)	184.0-185.9	294.4-297.4	
Forecasting (Lowest)	186.0-187.9	297.6-300.6	
Forecasting (Lowest)	188.0-189.9	300.8-303.8	
Forecasting (Lowest)	190.0-191.9	304.0-307.0	
Forecasting (Lowest)	192.0-193.9	307.2-310.2	
Forecasting (Lowest)	194.0-195.9	310.4-313.4	
Forecasting (Lowest)	196.0-197.9	313.6-316.6	
Forecasting (Lowest)	198.0-199.9	316.8-319.8	
Forecasting (Lowest)	200.0-201.9	320.0-323.0	
Forecasting (Lowest)	202.0-203.9	323.2-326.2	
Forecasting (Lowest)	204.0-205.9	326.4-329.4	
Forecasting (Lowest)	206.0-207.9	329.6-332.6	
Forecasting (Lowest)	208.0-209.9	332.8-335.8	
Forecasting (Lowest)	210.0-211.9	336.0-339.0	
Forecasting (Lowest)	212.0-213.9	339.2-342.2	
Forecasting (Lowest)	214.0-215.9	342.4-345.4	
Forecasting (Lowest)	216.0-217.9	345.6-348.6	
Forecasting (Lowest)	218.0-219.9	348.8-351.8	
Forecasting (Lowest)	220.0-221.9	352.0-355.0	
Forecasting (Lowest)	222.0-223.9	355.2-358.2	
Forecasting (Lowest)	224.0-225.9	358.4-361.4	
Forecasting (Lowest)	226.0-227.9	361.6-364.6	
Forecasting (Lowest)	228.0-229.9	364.8-367.8	
Forecasting (Lowest)	230.0-231.9	368.0-371.0	
Forecasting (Lowest)	232.0-233.9	371.2-374.2	
Forecasting (Lowest)	234.0-235.9	374.4-377.4	
Forecasting (Lowest)	236.0-237.9	377.6-380.6	
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Forecasting (Lowest)	240.0-241.9	384.0-387.0	
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Forecasting (Lowest)	248.0-249.9	396.8-399.8	
Forecasting (Lowest)	250.0-251.9	400.0-403.0	
Forecasting (Lowest)	252.0-253.9	403.2-406.2	
Forecasting (Lowest)	254.0-255.9	406.4-409.4	
Forecasting (Lowest)	256.0-257.9	409.6-412.6	
Forecasting (Lowest)	258.0-259.9	412.8-415.8	
Forecasting (Lowest)	260.0-261.9	416.0-419.0	
Forecasting (Lowest)	262.0-263.9	419.2-422.2	
Forecasting (Lowest)	264.0-265.9	422.4-425.4	
Forecasting (Lowest)	266.0-267.9	425.6-428.6	
Forecasting (Lowest)	268.0-269.9	428.8-431.8	
Forecasting (Lowest)	270.0-271.9	432.0-435.0	
Forecasting (Lowest)	272.0-273.9	435.2-438.2	
Forecasting (Lowest)	274.0-275.9	438.4-441.4	
Forecasting (Lowest)	276.0-277.9	441.6-444.6	
Forecasting (Lowest)	278.0-279.9	444.8-447.8	
Forecasting (Lowest)	280.0-281.9	448.0-451.0	
Forecasting (Lowest)	282.0-283.9	451.2-454.2	
Forecasting (Lowest)	284.0-285.9	454.4-457.4	
Forecasting (Lowest)	286.0-287.9	457.6-460.6	
Forecasting (Lowest)	288.0-289.9	460.8-463.8	
Forecasting (Lowest)	290.0-291.9	464.0-467.0	
Forecasting (Lowest)	292.0-293.9	467.2-470.2	
Forecasting (Lowest)	294.0-295.9	470.4-473.4	
Forecasting (Lowest)	296.0-297.9	473.6-476.6	
Forecasting (Lowest)	298.0-299.9	476.8-479.8	
Forecasting (Lowest)	300.0-301.9	480.0-483.0	
Forecasting (Lowest)	302.0-303.9	483.2-486.2	
Forecasting (Lowest)	304.0-305.9	486.4-489.4	
Forecasting (Lowest)	306.0-307.9	489.6-492.6	
Forecasting (Lowest)	308.0-309.9	492.8-495.8	
Forecasting (Lowest)	310.0-311.9	496.0-499.0	
Forecasting (Lowest)	312.0-313.9	499.2-502.2	
Forecasting (Lowest)	314.0-315.9	502.4-505.4	
Forecasting (Lowest)	316.0-317.9	505.6-508.6	
Forecasting (Lowest)	318.0-319.9	508.8-511.8	
Forecasting (Lowest)	320.0-321.9	512.0-515.0	
Forecasting (Lowest)	322.0-323.9	515.2-518.2	
Forecasting (Lowest)	324.0-325.9	518.4-521.4	
Forecasting (Lowest)	326.0-327.9	521.6-524.6	
Forecasting (Lowest)	328.0-329.9	524.8-527.8	
Forecasting (Lowest)	330.0-331.9	528.0-531.0	
Forecasting (Lowest)	332.0-333.9	531.2-534.2	
Forecasting (Lowest)	334.0-335.9	534.4-537.4	
Forecasting (Lowest)	336.0-337.9	537.6-540.6	
Forecasting (Lowest)	338.0-339.9	540.8-543.8	
Forecasting (Lowest)	340.0-341.9	544.0-547.0	
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Forecasting (Lowest)	344.0-345.9	550.4-553.4	
Forecasting (Lowest)	346.0-347.9	553.6-556.6	
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Forecasting (Lowest)	358.0-359.9	572.8-575.8	
Forecasting (Lowest)	360.0-361.9	576.0-579.0	
Forecasting (Lowest)	362.0-363.9	579.2-582.2	
Forecasting (Lowest)	364.0-365.9	582.4-585.4	
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Forecasting (Lowest)	374.0-375.9	598.4-601.4	
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Forecasting (Lowest)	384.0-385.9	614.4-617.4	
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Forecasting (Lowest)	396.0-397.9	633.6-636.6	
Forecasting (Lowest)	398.0-399.9	636.8-639.8	
Forecasting (Lowest)	400.0-401.9	640.0-643.0	
Forecasting (Lowest)	402.0-403.9	643.2-646.2	
Forecasting (Lowest)	404.0-405.9	646.4-649.4	
Forecasting (Lowest)	406.0-407.9	649.6-652.6	
Forecasting (Lowest)	408.0-409.9	652.8-655.8	
Forecasting (Lowest)	410.0-411.9	656.0-659.0	
Forecasting (Lowest)	412.0-413.9	659.2-662.2	
Forecasting (Lowest)	414.0-415.9	662.4-665.4	
Forecasting (Lowest)	416.0-417.9	665.6-668.6	
Forecasting (Lowest)	418.0-419.9	668.8-671.8	
Forecasting (Lowest)	420.0-421.9	672.0-675.0	
Forecasting (Lowest)	422.0-423.9	675.2-678.2	
Forecasting (Lowest)	424.0-425.9	678.4-681.4	
Forecasting (Lowest)	426.0-427.9	681.6-684.6	
Forecasting (Lowest)	428.0-429.9	684.8-687.8	
Forecasting (Lowest)	430.0-431.9	688.0-691.0	
Forecasting (Lowest)	432.0-433.9	691.2-694.2	
Forecasting (Lowest)	434.0-435.9	694.4-697.4	
Forecasting (Lowest)	436.0-437.9	697.6-700.6	
Forecasting (Lowest)	438.0-439.9	700.8-703.8	
Forecasting (Lowest)	440.0-441.9	704.0-707.0	
Forecasting (Lowest)	442.0-443.9	707.2-710.2	
Forecasting (Lowest)	444.0-445.9	710.4-713.4	
Forecasting (Lowest)	446.0-447.9	713.6-716.6	
Forecasting (Lowest)	448.0-449.9	716.8-719.8	
Forecasting (Lowest)	450.0-451.9	720.0-723.0	
Forecasting (Lowest)	452.0-453.9	723.2-726.2	
Forecasting (Lowest)	454.0-455.9	726.4-729.4	
Forecasting (Lowest)	456.0-457.9	729.6-732.6	
Forecasting (Lowest)	458.0-459.9	732.8-735.8	
Forecasting (Lowest)	460.0-461.9	736.0-739.0	
Forecasting (Lowest)	462.0-463.9	739.2-742.2	
Forecasting (Lowest)	464.0-465.9	742.4-745.4	
Forecasting (Lowest)	466.0-467.9	745.6-748.6	
Forecasting (Lowest)	468.0-469.9	748.8-751.8	
Forecasting (Lowest)	470.0-471.9	752.0-755.0	
Forecasting (Lowest)	472.0-473.9	755.2-758.2	
Forecasting (Lowest)	474.0-475.9	758.4-761.4	
Forecasting (Lowest)	476.0-477.9	761.6-764.6	
Forecasting (Lowest)	478.0-479.9	764.8-767.8	
Forecasting (Lowest)	480.0-481.9	768.0-771.0	
Forecasting (Lowest)	482.0-483.9	771.2-774.2	
Forecasting (Lowest)	484.0-485.9	774.4-777.4	
Forecasting (Lowest)	486.0-487.9	777.6-780.6	
Forecasting (Lowest)	488.0-489.9	780.8-783.8	
Forecasting (Lowest)	490.0-491.9	784.0-787.0	
Forecasting (Lowest)	492.0-493.9	787.2-790.2	
Forecasting (Lowest)	494.0-495.9	790.4-793.4	
Forecasting (Lowest)	496.0-497.9	793.6-796.6	
Forecasting (Lowest)	498.0-499.9	796.8-799.8	
Forecasting (Lowest)	500.0-501.9	800.0-803.0	
Forecasting (Lowest)	502.0-503.9	803.2-806.2	



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SW Quay
Soil and Water Conservation District

LAND USE PLAN

Adopted

April 1, 2024

SQWCD Board of Supervisors

Original signed by:

Kole Tatum, _____

Chairman

Original signed by:

Jovani Amendariz, _____

Vice Chair

Original signed by:

Lisa Runayn _____

Supervisor

Original signed by:

Clyde Moon, _____

Sec/Treasurer

Original signed by:

Kandy Hutchins, _____

Supervisor

Original Signed by:

Bobby Lee, _____

Supervisor

Notary Stamp



Photo credit

< Malorie McAllister 🔍



Malorie McAllister

April 4, 2024

To National Fish and Wildlife Foundation

Southwest ^{Quay} Soil and Water Conservation District fully supports the *Tomorrow's Water: Connecting People, Playas & the Ogallala Aquifer* pre-proposal for the NFWF America the Beautiful Challenge.

Southwest Quay Soil and Water Conservation District has been working on water conservation issues in Quay County New Mexico for almost a decade. We have used our own money together to support well monitoring in our district and within the last three years started a playa conservation program in partnership with NM Dept. of Game and Fish and the Playa Lakes Joint Venture. Very recently we have begun talks with the NM State Land Office to support playa conservation on lands that they own within our district. Conserving and restoring playas, which are the primary source of recharge to the Ogallala and are a concern for those in our community.

Because playas are a primary source of recharge, they can be an important part of a water management plan. We feel that healthy playa lakes will support our primarily rain-fed operations. Aquifer levels are decreasing throughout our region and many communities that depend on the Ogallala aquifer at risk for continued groundwater loss. Communities can proactively address a declining water supplies by reducing the impacts from aquifer overuse and increasing groundwater recharge through playas. Once water use has been reduced, healthy playas can provide a sustainable source of future water

We believe expanding Tomorrow's Water will support a more resilient landscape for over 200 bird species in the Central Flyway and increase groundwater recharge to our aquifer. Communities in the western Great Plains are threatened by a declining Ogallala Aquifer, which can disproportionately affect minority and economically disadvantaged populations. By using a community engagement model of addressing societal needs, this work will deliver important playa wetland and associated grassland acres.

We believe that this *Tomorrow's Water* proposal will address many of our community's water needs and those of other communities participating in this program. Thank you for your consideration of this proposal,

Sincerely yours,

Kole Tatum

April 4, 2024

To National Fish and Wildlife Foundation

Southwest Soil and Water Conservation District fully supports the *Tomorrow's Water: Connecting People, Playas & the Ogallala Aquifer* pre-proposal for the NFWF America the Beautiful Challenge.

Southwest Quay Soil and Water Conservation District has been working on water conservation issues in Quay County New Mexico for almost a decade. We have used our own money together to support well monitoring in our district and within the last three years started a playa conservation program in partnership with NM Dept. of Game and Fish and the Playa Lakes Joint Venture. Very recently we have begun talks with the NM State Land Office to support playa conservation on lands that they own within our district. Conserving and restoring playas, which are the primary source of recharge to the Ogallala and are a concern for those in our community.

Because playas are a primary source of recharge, they can be an important part of a water management plan. We feel that healthy playa lakes will support our primarily rain-fed operations. Aquifer levels are decreasing throughout our region and many communities that depend on the Ogallala aquifer at risk for continued groundwater loss. Communities can proactively address a declining water supplies by reducing the impacts from aquifer overuse and increasing groundwater recharge through playas. Once water use has been reduced, healthy playas can provide a sustainable source of future water

We believe expanding Tomorrow's Water will support a more resilient landscape for over 200 bird species in the Central Flyway and increase groundwater recharge to our aquifer. Communities in the western Great Plains are threatened by a declining Ogallala Aquifer, which can disproportionately affect minority and economically disadvantaged populations. By using a community engagement model of addressing societal needs, this work will deliver important playa wetland and associated grassland acres.

We believe that this *Tomorrow's Water* proposal will address many of our community's water needs and those of other communities participating in this program. Thank you for your consideration of this proposal,

Sincerely yours,

[Insert Name]



Southwest Quay
Soil and Water Conservation District
LAND USE PLAN

April 1, 2024



Photo by Malorie McAllister

The Southwest Quay Soil and Water Conservation District (SQSWCD or District) Land Use Plan (Plan) is an executable policy for natural resource management and land use on the lands within the District and provides a scientifically and culturally sound framework for resource planning objective.

Southwest Quay
Soil and Water Conservation District
LAND USE PLAN

Executive Summary

1.0 INTRODUCTION

1.1 Background

1.2 Authority

1.3 Adoption

2.0 PRIMARY PLANNING GUIDANCE

2.1 Plan Definitions

2.2 Annual Action Plan

2.3 Policies and Procedures

2.4 Emergency Plans—(for dams and structures)

2.5 Coordination Agreements—(local, state and federal agencies)

3.0 PURPOSE, CUSTOM AND CULTURE, AND GOALS

3.1 Purpose

3.2 Custom and Culture

3.3 Goals

4.0 PRIMARY PLANNING GUIDANCE AND DIRECTIVES (PPGD)

4.1 Objectives

4.2 Resource Concerns

4.2-1 Water Resources

4.2-2 Soil Resources

4.2-3 Agriculture

4.2-4 Range and Grassland

4.2-5 Livestock and Wildlife

4.2-6 Energy

4.2-7 Wildfire

4.2-8 Custom and Cultures

4.2-9 Riparian Habitat

4.2-10 Threatened, Endangered / Sensitive Species

4.2-11 Predators

4.2-12 Outreach and Education

4.2-13 Watershed Management

4.2-14 Natural Climate Cycles/Climate Change - Weather Modification (Cloud Seeding/Water Enhancement)

4.2-15 Playa Lakes

EXECUTIVE SUMMARY

Sections 73-20-25 through 73-20-48 NMSA 1978 is the summary description of the New Mexico Soil and Water Conservation District Act (Act). The Southwest Quay Soil and Water Conservation District (District) is the administrative body responsible for the dictates of the law in Southwest Quay County outside of the administrative boundaries of the DeBaca, Central Curry, Canadian River and Guadalupe Soil and Water Conservation Districts. SQSWCD was formed circa 1939 and there are approximately 424,582 acres within SQSWCD boundaries.

The District is a governmental subdivision of the state, a public body politic and corporate. The Board of Supervisors (Board) is charged with matters affecting soil erosion and flood water and sediment damage. As such, the duties of the Board include the coordination of matters of research, investigations, and surveys with government agencies. The results should be published and disseminated along with remedies and control measures related to such findings.

The District will coordinate projects on the land with local, state, and federal agencies for such remedy and enhancement of the resource base. The District has the authority, concerning natural resources, to assist, contract, and render financial aid, when practical, to the stakeholder community.

The District's customs and culture play a large role in how the citizens of Quay Soil and Water Conservation District earn their livelihoods. The District's economy is, and will continue to be dependent upon these activities. Since The District is directly dependent upon its natural resources, management decisions affecting land use directly impact and change the District's custom and culture. Therefore, a critical tie exists between the use of private, federal, state and local natural resources and the economic stability of the District. It is imperative that stakeholders and informed representatives review natural resource issues as they are developed, to assure public land management decisions do not negatively impact citizens within the District's jurisdictional boundaries.

The body of work acquired over time must be expanded into parallel, comprehensive plans for natural resource conservation and development and utilization. This includes flood prevention and soil erosion control.

By law and mutual good, projects of any government agency imagined, planned, and undertaken for the matters of soil conservation, erosion control or prevention, flood prevention, or matters of turf enhancement, brush control, or wildlife and livestock system enhancements should be acquired and or managed by the District. As such, the District is the agent and instrumentality for state or federal government acquisition, land designation, construction, operation, or administration of such projects.

In order for the foregoing to be accomplished, the District must have a comprehensive and dynamic Land Use Plan (Plan). The Plan is required to take available technical, financial, and educational resources, whatever their source, and focus and coordinate them so they meet the needs of the local land user.

The Plan is predicated on the District always being in full knowledge of all state agency plans, local government planning, and federal agency Schedules of Proposed Actions (SOPA). The Plan is also de-

pendent on enhancing and strengthening stakeholder presence culminating from strong local custom and culture. Such a matter of importance must be judged on zero net loss of privately held lands which equates positively to concentration of assisted projects.

Within the algorithm of control of zero net loss, farm and range land must further be protected on the same basis. All other matters explicit and implicit in the Plan strongly adhere to that basic premise.

Most importantly, the soil and water resource pool must be protected from agency and governmental creation of willing sellers emanating from stepwise reduction of productivity from restrictive land use designations.

Endangered Species Act (ESA) policies have been driven by litigation, which has diverted attention and resources away from species recovery. It is this District's policy, to the maximum extent possible including 'cooperating agency status' and 'coordination' as defined by congressional action, to participate in all decision processes associated with federal and state agencies management actions relating to all sensitive, threatened, and endangered species, including candidate species.

The District will adhere to the dictates of the law and seek those actions that will satisfy the standards of consistency review within the process. In that manner, expectations of customs and culture will be honored.

This Land Use Plan is crafted to address those major issues.

1.0 INTRODUCTION

The Southwest Quay Soil and Water Conservation District (SQSWCD or District) Plan is an executable policy for natural resource management and land use on the lands within the District. It adheres to the legislative purpose of the Soil and Water Conservation District Act and for those measures will serve to conserve and develop the natural resources, provide for flood control, preserves wildlife, protect the tax base and promote the health, safety and general welfare of the people of this District. It provides a scientifically and culturally sound framework for resource planning objectives. There is an identified need to promote public understanding that land and water is the most important resource within SQSWCD, and that, as such, it must be used in a sustainable way. Emphasis is placed on the need to create “viable rural working landscapes. It is a dynamic plan.

The Plan is designed to: (1) provide protection for the soil and water resources; (2) provide strategies and policies for enhancing the conservation, improvement, and management of these resources; (3) facilitate federal agency efforts to seamlessly coordinate joint efforts between federal, state and county land use decisions.

This Plan is not intended to regulate, zone or otherwise reduce private property rights, in as much as this Plan seeks to protect private property rights and customs and culture. Where private property such as water rights, rights-of-way, easements, forage rights, mineral rights, and other property occur within lands administered by federal and state agencies, the Plan may prompt decisions that indirectly affect property rights.

When a species is listed under the Endangered Species Act (ESA), there are sweeping consequences for landowners, businesses, and communities near the habitat in question. ESA regulations are incredibly expensive, and a single listing can affect hundreds of thousands of people. So it's crucial that the federal government use the best available objective peer reviewed science to evaluate whether a listing is necessary or if other conservation efforts will be successful.

Federal law, in particular, establishes national policies that focus on national interests, rather than local interests. While federal land use and planning decisions may create benefits for state and national citizens outside of SQSWCD, they may also transfer a disproportionate amount of the costs and responsibilities to local communities and citizens.

1.1 BACKGROUND/HISTORY

Quay County sits in eastern New Mexico and was created in 1903 from Chaves and Guadalupe Counties. The County was named for Matthew S. Quay, a Pennsylvania senator who supported statehood for New Mexico. It's county seat is Tucumcari and secondary communities in the county include House, Wheatland, Quay, Montoya, McAlister, Forrest Endee, Bard, Nara Vista, San Jon and Logan.

According to the 2022 Census of Agriculture, Quay County had 592 farms consisting of 1,834,958 acres. Total cropland consists of 338 farms totaling 198,356 acres, however, only 51 farms totaling 253,574 acres are considered irrigated farms and of that 10,488 acres are irrigated. The primary crops include: grains, sorghum, forage land use for all hay, and livestock. Ranching is historically important to Quay County.. Approximate land area in acres 1,839,288; proportion in farms 99.8%.

So Agriculture has been and remains an important economic driver for Quay County communities. However, water remains the most important natural resource for Quay County, especially agricultural producers. Careful management of the region's water supplies is critical.

LOCATION

Located in Eastern New Mexico with its eastern border being the Texas state line. According to the U.S Census Bureau, the Quay County has a total area of 2,882 square miles of which 2,847 square miles is land and 7.2 square miles (0.3%) is water.

DISTRICT LAND STATUS

Southwest Quay SWCD has a total of **424,582** acres within its boundaries of which 354.9 acres (0.1%) is Bureau of Land Management (BLM), 45,273 acres (10.7%) is State Land, and 378,954 acres (89.3%) is private.

ELEVATION

Ranges between 3,500 feet above sea level to 5,350 feet above sea level.

CLIMATE

Climate varies according to elevation but predominantly the District is temperate and continental in type, with cool winters and warm summers. Temperature ranges from an average minimum of 20°F in January to an average maximum in July of 95°F.

WATERSHEDS

The United States Geological Survey (USGS) has designated twenty-one major regions (river basins) for the nation. Regions are further divided into subregions and New Mexico contains portions of five regions: Arkansas-White-Red, Texas Gulf, Upper Colorado, Lower Colorado, and the Rio Grande. Within New Mexico the Rio Grande region is divided into two subregions, the Pecos and the Rio Grande.

SQSWCD has seven main 8-digit hydrologic unit watersheds: Upper Canadian - Ute Reservoir (NM/TX), Revuelto (NM), Middle Canadian - Trujillo (NM/TX), Tierra Blanca (NM/TX), Pecos Headwater (NM), Upper Pecos (NM), Taiban (NM).

VEGETATION/GEOLOGY

The District is ecologically classified in mostly one Level III ecoregion with the Southwest corner in another: 1) **High Plains** and 2) **Southwestern Tablelands**.

Ecoregions within the District include; Llano Estacado, Semiarid Canadian Breaks and Conchas/Pecos Plains

The District physiography includes; Llano Estacado - Level, elevated plains, decreasing in elevation from west to east. Few to no streams. Surface water in numerous ephemeral pools or playas. **Conchas/Pecos Plains** - Broad, rolling plains, tablelands, piedmonts, river valleys. Mostly ephemeral and some intermittent streams; a few perennial rivers cross the ecoregion. The Pecos River is often dry in places due to diversions and permeable geology. **Semiarid Canadian Breaks** - This ecoregion has large areas of Triassic mudstone and shales ex-

posed. The mudstones and shales create badlands that are not productive, and plant growth is sparse, increasing the look of aridity to the landscape. Some of the taller grasses and eastern riparian species also tend to disappear towards the west in the ecoregion as conditions become drier and the soils become less productive.

The District vegetative type by ecoregions include; *Llano Estacado* - Shortgrass prairie of buffalograss, blue and sideoats grama, and little and silver bluestem. Sandy sites: Sand bluestem, sand dropseed. Forbs: dalea, scarlet globe-mallow, sunflower, stiffstem flax. Invading shrubs: mesquite, narrowleaf yucca. Playas: Grasses, or willow, rushes, and aquatic plants. **Semiarid Canadian Breaks** - The shrub and midgrass prairie vegetation includes one-seed juniper, sand sagebrush, skunkbush sumac, and yucca, along with sideoats grama, little bluestem, western wheatgrass, blue grama, buffalograss, galleta, and alkali sacaton. *Conchas/Pecos Plains* - Shortgrass and some midgrass prairie with blue grama, galleta, sand dropseed, threeawns, ring muhly, broom snakeweed, cacti, yucca, and cholla. Some areas of sideoats grama and little bluestem, with blue grama, western wheatgrass, galleta, and buffalograss. Some areas of scattered juniper.

CURRENT LAND RESOURCE USE

Conchas/Pecos Plain - Grassland, ranching and livestock grazing. Some irrigated cropland of mostly hay and alfalfa. *Llano Estacado* - Grassland; cropland with cotton, corn, and wheat; ranching and livestock grazing; some urban. Endemic playa lake flora and fauna has been altered by agricultural activities. **Semiarid Canadian Breaks** - Shrubland and grassland. Livestock grazing, and **wildlife habitat**.

SOILS

Mollisols (Paleustolls, Argiustolls, Haplustolls, Calciustolls), Alfisols (Paleustalfs, Haplustalfs), Vertisols (Epi-aquerts, Haplusterts), Inceptisols (Calciustepts, Haplustepts), Entisols (Ustipsamments, Torripsamments), Inceptisols (Calciustepts), Aridisols (Haplargids, Petrocalcids, Haplocalcids, Calciargids, Petroargids).

1.2 AUTHORITY

Sections 73-20-25 through 73-20-48 NMSA 1978 considered and resolved by legislative action, the purpose of the Act declared that 1) the land, waters and other natural resources are the basic physical assets of New Mexico, and their stewardship and development are necessary to protect and promote the health and general welfare of the people of the state; 2) the improper use of land and related natural resources, soil erosion, and water loss result in economic waste in New Mexico through the deterioration of the state's natural resources, and; 3) appropriate corrective and conservation practices and programs must be encouraged and executed in New Mexico to conserve and develop beneficially the soil, water and other natural resources of the state;

It is declared to be the policy of the legislature and the purpose of the Soil and Water Conservation District Act (Act) [73-20-25 NMSA 1978] to: 1) control and prevent soil erosion; 2) prevent floodwater and sediment damage; 3) further conservation development, beneficial application and proper disposal of water; 4) promote the use of impounded waters for recreation, propagation of fish and wildlife, irrigation and for urban industrial needs; and 5) by the application of these measures, conserve and develop the natural resources of the state, provided for flood control, enhance wildlife, protect the tax base and promote the health, safety and general welfare

of the people of New Mexico.

73-20-26. Legislative states “The land, waters, and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state.”

Under **73-20-45. Specific powers of districts. (2003)** SQSWCD by and through its supervisors, is authorized to contract, convey and make and execute other instruments and documents necessary or convenient to the exercise of district powers: as well as act as agent for any instrumentality or agency of the state or the federal government in the acquisition, construction, operation or administration of a natural resource conservation, utilization or development project or program within the district.

73-20-44. Districts; description; general powers of districts. (2003) States that “A 'soil and water conservation district,' organized under or perpetuated by the provisions of the Soil and Water Conservation District Act is a governmental subdivision of the state, a public body politic and corporate.” Districts may conduct a wide array of research, investigations, and surveys to facilitate conservation and development. Included, but not limited to, is the extended authority to develop comprehensive plans for natural resource conservation, development, and utilization including flood prevention, control and prevention of soil erosion and the development, utilization and disposal of water.

73-20-47. Cooperation between districts. (1965). “The supervisors of two or more soil and water conservation districts may cooperate with each other in the exercise of any district power.”

73-20-48. State agencies to cooperate. (2003) “Agencies, instrumentalities and political subdivisions of this state having jurisdiction over or charged with the administration of public lands situate within the defined geographical area of any district shall cooperate to the fullest extent with the district’s supervisors in effecting district projects and programs. Supervisors shall have free access to enter and perform work upon state public lands lying within their districts; provided, however, supervisors shall not have unqualified access to state lands that are subject to private dominion under lease or that are developed for, or devoted to, another public use.”

1.3 ADOPTION

By adoption of this Plan in accordance with the Act, the District hereby records its intention to engage in decision making that pertains to all soil and water resources within its jurisdiction as provided under the law. The statement of purpose includes the recognition of the duties, statutory requirements, court mandates, executive orders, and policies of local, county, state, and federal agencies to comply with plans adopted under the concept and definition of coordination noted herein. This also facilitates the coordination of local, county, state, and federal planning efforts with the local planning efforts of the District.

It is the policy of the District for improvement of resource quality, greater multiple uses of the resources, and the enhancement of soil and water stability of administered lands. SQSWCD is committed to a positive planning process with federal and state agencies and local governments. SQSWCD will equitably consider the best interests of all the people within SQSWCD’s jurisdictional boundary and the State of New Mexico in the use of state and federal lands. SQSWCD commits to seeing that all natural resource decisions affecting the District are guided by the following principles:

- To maintain and revitalize the idea of multiple use on state and federal lands within SQSWCD's jurisdictional boundary.
- To protect private property rights and private property interests, including investment-backed expectations.
- To protect local historical custom and culture.
- To protect the traditional economic structures in the District that form the base for economic stability.
- To facilitate new economic opportunities by relying on free markets.
- To protect the rights to the enjoyment of the natural resources of the District by all citizens.

SQSWCD believes that resource and land use management decisions made in a coordinated manner by federal and state agencies and local government entities will maintain and revitalize multiple use of state and federal lands within and affecting the District and will enhance environmental quality. The District will coordinate with the various agencies to participate in and advance such effort. The District will review the Plan every year and update when appropriate.

2.0 PRIMARY PLANNING GUIDANCE

2.1 PLAN DEFINITIONS

- **Agriculture** – The art and science of growing crops and raising and breeding livestock. According to this Plan, activities which traditionally define agriculture in the District include, but are not limited to, poultry, cattle, sheep, hogs and pigs; hay, grain, chile, vegetables melons, potatoes, and other crop production.
- **Animal Unit Month (“AUM”)** – The quantity of forage required by one mature cow and her calf (or equivalent, in sheep or horses, for instance) for one month. The amount of forage needed to sustain one cow, five sheep, or five goats for a month. In the United States, a full AUMs fee is charged for each month of grazing by adult animals if the grazing animal (1) is weaned, (2) is 6 months old or older when entering public land, or (3) will become 12 months old during the period of use.
- **Area of Critical Environmental Concern (ACEC)** – areas within public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural and scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.
- **Archeological and Historic Preservation Act 1974** – Provides for “the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or de-

stroyed as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency or (2) any alteration of the terrain caused as a result of any Federal construction project or federally licensed activity or program." 16 U.S.C. §469.

- **Candidate Conservation Agreement** – US Fish and Wildlife Service (FWS) by policy may enter into an agreement with a state agency, local government or private landowner to protect or manage habitat for a species that is proposed for listing but is not yet listed. Under the terms of the agreement, generally an agreed-upon amount of land is set aside or earmarked to be conserved for the candidate species. The landowner may also receive compensation and assurances that if the species is listed, the landowner will not be required to adopt additional conservation measures.
- **Clean Water Act** – The Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) is the foundation for surface water quality protection in the United States. Congress gave States and tribes the option for taking primary responsibility for water pollution control.
- **Climate** - Is the average weather in a given area over a longer period of time. A description of a climate includes information on, e.g. the average temperature in different seasons, rainfall, and sunshine. Also a description of the (chance of) extremes is often included.
- **Climate Cycles (Natural)** - Climate varies without human influence, and this natural variation is a backdrop for the human-caused climate change occurring now. These patterns hold important lessons for understanding the magnitude and scope of current and future climate changes. Cyclical variations in the Earth's climate occur at multiple time scales, from years to decades, centuries, and millennia. Cycles at each scale are caused by a variety of physical mechanisms. Climate over any given period is an expression of all of these nested mechanisms and cycles operating together.
- **Climate Change** - is any systematic change in the long-term statistics of climate variables such as temperature, precipitation, pressure, or wind sustained over several decades or longer. Climate change can be due to natural external forcings (changes in solar emission or changes in the earth's orbit, natural internal processes of the climate system) or it can be human induced.
- **Compensable Property Right** – Is any type of right to specific property, personal or real, tangible, which, when reduced or taken for public purposes, is due just compensation under the Fifth Amendment of the United States Constitution.
- **Conservation** - Management of the human use of natural resources to provide the maximum benefit to current generations while maintaining capacity to meet the needs of future generations. Conservation includes both the protection and rational use of natural resources.
- **Conveyance of Harm** – The loss or detriment suffered by resource users because of intrusion of uncoordinated actions.
- **Cooperation** – 1) An act or instance of working or acting together for a common purpose or benefit; joint action. (2) Process created by government agencies to marry the general attempt to blend respective

areas of responsibility, authority, and expertise of governing bodies and agencies for creating more effective land planning partnerships.

- **Cooperating Agency** – 1. Generally reference to the partnership agent in the relationship of preparing resource management plans, partnering with Tribes, state, and local governments (intergovernmental partners) before, during, and after plans and Environmental Impact Statements (EISs) are prepared. 2. The agent acting upon and within the framework for intergovernmental efforts in achieving early and consistent partnership involvement, incorporating local customs and culture as well as state and local land use requirements, address intergovernmental issues, avoid duplication of effort, enhance local credibility of plans and EISs, encourage support for management decisions, and build relationships of trust.
- **Coordination** – 1. Process created by Congress to ensure consistency of federal plans and activities with local government plans and policies. 2. Coordination is defined as the act of coordinating; harmonious adjustment or interaction; one that is equal in importance” (American Heritage Dictionary). Coordination is more than “cooperate” or “consult. The courts have defined the term as well: “The concept of ‘coordination’ means more than trying to work together with someone else. To ‘coordinate’ is ‘to bring into a common action, movement, or condition; it is synonymous with; harmonize.” (California Native Plant Society v City of Rancho Cordova, 172 Cal. App 4th 603, 91 Cal. Rpt. 3rd 571 (Third App. Dist. 2009)). 3. Specifically the National Forest Management Act (16 U.S.C. §§ 1604 (a)) requires the Secretary of the Department of Agriculture to: develop, maintain and as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management processes of state and local governments and other federal agencies. 4. Specifically the Federal Land Policy and Management Act (43 U.S.C.A. 1712(c)(9)) requires the Secretary of the Department of Interior to: a. Keep apprised of local plans; b. assure consideration is given to the local plans; c. assist in resolving inconsistencies with local plans; d. meaningfully involve local governments in the planning process; and e. ensure land use plans are consistent with local land use plans.
- **Coordination Process** – a process by which local government engages in a government-to-government dialogue with state and federal agencies in a constructive effort to achieve consistency between state and federal land use plans and actions with local government.
- **Coordinated Resource Management (“CRM”)** – A group of people working together to develop common resource goals and resolve natural resource concerns. CRM is a people process that strives for win-win situations through consensus-based decision-making.
- **Critical Threshold or tipping point events** - A threshold is crossed in a natural system that triggers an irreversible reaction. Reversing the trigger does not restore the natural system to its original condition. *Example* - when water is pumped from certain aquifers, the pore space in the aquifer will collapse, resulting in permanently reduced capacity of the aquifer.
- **Culture** - Culture is defined as the customary beliefs, social forms and material traits of a group; an integrated pattern of human behavior passed to succeeding generations. *Webster’s New Collegiate Dictionary*, 227 (1975).

- **Custom** - Custom is a usage or practice of the people, which by long and unvarying habit, has become compulsory and has acquired the force of law with respect to the place or subject matter to which it relates. *Bouvier's Law Dictionary*, 417 (1st ed. 1867).
- **Data Quality Act** - Section 515 of the Treasury and General Governmental Appropriations Act for Fiscal Year 2001 (Public Law 106-554) directed the Office of Management and Budget to issue guidelines to "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information [including statistical information] disseminated by Federal agencies."
- **de facto Wilderness Management** – Land management policy that is imposed without congressional direction or authority that mirrors or is similar to the management of areas designated by Congress as wilderness pursuant to the 1964 Wilderness Act. The management restrictions and prohibitions include: the prohibition of construction of new roads; restriction or prohibition on reconstruction or maintenance of existing roads; prohibition of mining or mineral development; restrictions on activities that would require permanent structures or facilities, or restrictions on motorized vehicle use or the use of mechanical tools or means of travel.
- **Desired Plant Community** – A plant community which produces the kind, proportion and amount of vegetation necessary for meeting or exceeding the land use plan and activity plan objectives established for an ecological site(s). The desired plant community must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.
- **Economics** – Pertaining to the development and management of the material wealth of a government or community.
- **Erosion** – (v.) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity.(n.) The land surface worn away by running water, wind, ice or other geological agents, including such processes as gravitational creep.
- **Federal Lands**—All land and associated natural resources owned and managed by the United States. Federal lands include, but are not limited to, public lands, federally reserved lands, federal mineral leases, federal geothermal leases, livestock grazing allotments and leases, federal rights-of-way, but categorically exempted are lands and resources to which private interest or title is attached.
- **Forms of Production** – The forms of production component include the things you have or need to produce to retain or attain the desired quality of life. The derived forms of production statement of the District reads as follows: "The quality of life we strive for will be achieved by continuing to maintain and enhance sustainable and optimum production of renewable and nonrenewable resources and to encourage and support the motive and means to enhance economic opportunity and education."
- **Future Resource Base** – The future resource base component includes the people, land and community we live in and the services available, and what we will need to sustain and enhance our quality of life and forms of production. The future resource base statement of SQSWCD reads as follows: "Through the efforts of cooperation and communication among the local people, our community will have a beneficial impact on sustaining a strong and viable multiple-use of our lands, including agricultural, industri-

al, mineral production, commercial, recreational and historical uses, which together will provide the continued ability to generate wealth and growth and needs of our community.”

- **Grazing Management Practices** – Grazing management practices include such things as grazing systems (rest-rotation, deferred rotation, etc.), timing and duration of grazing, herding, salting, etc. They do not include physical range improvements.
- **Guidelines (For Grazing Management)** – Guidelines provide for and guide the development and implementation of, reasonable, responsible, and cost-effective management actions at the allotment and watershed level which move rangelands toward statewide standards or maintain existing desirable conditions. Appropriate guidelines will ensure that the resultant management actions reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural and historic, and economic opportunities to sustain viable local communities. Guidelines, and, therefore, the management actions they engender, are based on sound science, past and present management experience and public input.
- **Habitat Conservation Plan** – The FWS will approve a plan to protect habitat for a species listed under the ESA located on private land. The habitat conservation plan allows private landowners to use or develop the land, even though the activities may adversely affect a listed species. The plan will also include a “takings permit” which will permit the incidental loss of habitat or potential harm to a listed species.
- **Habitat Fragmentation** – An event that creates a greater number of habitat patches that are smaller than the original contiguous tract(s) of habitat.
- **Healthy Soils** - soil that enhances its continuing capacity to function as a biological system, increases its organic matter and improves its structure and water- and nutrient-holding capacity.
 - “Soil health principle” is a principle that promotes soil health in a given environment and includes:
 - Keeping soil covered;
 - Minimizing soil disturbance on cropland and minimizing external inputs;
 - Maximizing biodiversity;
 - Maintaining a living root
 - Integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms
- **Historical Value** – 1. The collective contributions of objects and values derived and established in recorded history that impact the character of the District and contribute directly to the customs and cultures related to the use and protection of natural resources as described in the Act. 2. The primary managed value as set forth in Federal Land Policy and Management Act (FLPMA) that applies to natural resources and the respective resource users as set forth in the Act.
- **Indicator** – An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity and distribution) can be measured based on sound scientific principles. An indicator can be measured (monitored and evaluated) at a site or species-specific level. Measurement of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appro-

appropriate indicators to be monitored in a particular allotment is a critical aspect of early communication among the interests involved on the ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

- **Irreversible and Irretrievable Commitment of Resources** – NEPA requires that each EIS address the resources that will be permanently lost or committed as a result of the project. When oil is produced from a well, it is lost or committed and cannot be later developed. Vegetation resources associated with a well pad are not irreversible committed because the site can be reclaimed.
- **Invasive Species** - A species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health.
- **Jeopardy Review** – The FWS, pursuant to the Endangered Species Act (ESA), must evaluate all federal actions that may adversely affect a species that is listed under the ESA to determine whether the proposed action is likely to jeopardize the continued existence of the species. 16 U.S.C. §1536. As part of the jeopardy review, which is also called a “Section 7 review,” FWS prepares a biological opinion, makes a determination regarding jeopardy, and recommends additional conservation measures that would mitigate the impacts on the species. If the FWS makes a finding of jeopardy, the proposed federal action may not proceed.
- **Lands with Wilderness Characteristics** – lands that fit the strict definition of wilderness as set forth in the Wilderness Act, e.g., ‘5000 contiguous acres’, etc., and are allowed by strict inventory methods as defined by FLPMA.
- **Managed Values** - Values attached to the management of federal lands as set forth in FLPMA. Such values are identified to protect the quality of management, preserve certain lands in their natural condition, provide food and habitat for fish, wildlife, and domestic animals, and provide for outdoor recreation, human occupancy and use. The eight identified managed values are scientific, scenic, historical, ecological, air and atmospheric, water resources, and archeological.
- **Multiple Use** – 1. Balanced and diversified management of federal lands and their various public resources to best meet present and future economic and resource needs of the American people. 2. Management of lands and their various resource values so that they are used in the combination that will best meet the present and future needs of the citizenry and the American people. 3. A combination of balanced and diverse resource uses that include managed values as set forth in FLPMA.
 - ✦ Multiple use of the public lands managed by the Bureau of Land Management means: “the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values;

and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” Federal Land Policy and Management Act, 43 U.S.C. §1702(c).

- **Natural Resources** – As used in this Plan, all renewable and nonrenewable material in its native state which when extracted has economic value as it pertains to the protection and beneficial use of soil and water. Natural resources may be commercial or noncommercial in nature.
- **Objective** – An objective is a site-specific statement of a desired rangeland condition. It may contain qualitative (subjective) elements, but it must have quantitative (objective) elements so that it can be measured. Objectives frequently speak to change. They may measure the avoidance of negative changes or the accomplishment of positive changes. They are the focus of monitoring and evaluation activities at the local level. Objectives may measure the products of an area rather than its ability to produce them, but if they do so, it must be kept in mind that the lack of a product may not mean that the standards have not been met. Instead, the lack of a particular product may reflect other factors such as political or social constraints. Objectives often focus on indicators of greatest interest for the area in question.
- **Objectivity** - Includes whether disseminated information is being presented in an accurate, clear, complete, and unbiased manner. In a scientific or statistical context, the original or supporting data shall be generated, and the analytical results shall be developed, using sound statistical and research methods.
- **Occupied Range (Territory)** - To constitute an occupied range (territory) a pair, a male and female, of any identified species must be present for at least one life cycle, including the successful production of viable offspring. The appearance of a single individual in an area does not constitute occupied range (territory).
- **Objective Peer Review** - A third party review by experts of similar competence to the producers of the work, outside of the organization or entity making the claim, to ensure it meets specific criteria and to prevent dissemination of irrelevant findings, unwarranted claims, unacceptable interpretations, and personal views.
- **Playas** - Playas are a wetland type found across the shortgrass prairie region of New Mexico. Playas are defined as “shallow depression recharge wetlands similar to prairie potholes, characterized by annual or multiyear cycles of dry down and filling” (Smith 2003). The greatest density of playas is found in short grass prairies of the Llano Estacado, a portion of which exists in Eastern New Mexico.
- **Private Property** – As protected from being taken for public uses.
- **Post-fire Watershed Stabilization** - Watershed stabilization includes those emergency stabilization treatments necessary to protect life, property, and watershed values (soil productivity and water quality and quantity).
- **Public Lands** – Lands open for sale or other disposition under the general land laws to which no claims

or rights of others have been attached.

- **Rainwater harvesting** - The accumulation and deposition of rainwater for reuse on-site, rather than allowing it to run off. Uses include water for garden, water for livestock, water for irrigation.
- **Rights-of-Way** – This term generally refers to “an easement, lease, permit, or license to occupy, use, or traverse lands” and such right may be created by federal or state statute, deed, contract or agreement, or permit. A right-of-way may also include: Any road, trail, access or way upon which construction has been carried out to the standard in which public rights-of-way were built within historic context. These rights-of-way may include, but not be limited to, horse paths, cattle trails, irrigation canals, waterways, ditches, pipelines or other means of water transmission and their attendant access for maintenance, wagon roads, jeep trails, logging roads, homestead roads, mine to market roads, and all other ways.
- **RS2477 Rights of Way** – Revised Statute 2477 was a self-executing law. When the conditions were met, the right-of-way grant was made. No further action by the grantee or by Congress was necessary to validate it.
- **Range** – Rangelands, forests, woodlands and riparian zones that support and understory or periodic cover of herbaceous or shrubby vegetation amenable to rangeland management principals or practices. Land on which the principal natural plant cover is composed of native grasses, forbs, and shrubs that are valuable as forage for livestock and big game. Any land supporting vegetation suitable for wildlife or domestic livestock grazing, including grasslands, woodlands, shrublands and forest lands.
- **Range Condition** – The current productivity of a rangeland relative to what the land could naturally produce based on the site’s soil type, precipitation, geographic location and climate.
- **Range Improvements** – Range improvements include such things as corrals, fences, water developments (reservoirs, spring developments, pipelines, wells, etc.) and land treatments (prescribed fire, herbicide treatments, mechanical treatments, etc.).
- **Range Management** – Ensure a sustained yield of rangeland products while protecting and improving the basic range resources of soil, water, and plant and animal life. Besides producing forage for livestock and wildlife, a range can provide timber, minerals and recreational opportunities. SQSWCD subscribes to the concept of multiple use, which requires that all the resources of a rangeland be managed simultaneously, using constant monitoring and adjustments to provide a mix of material products and intangible assets that best satisfy the needs of the land, landowners and the general public.
- **Rangeland Preservation Area** – a conceptual federal land designation that balances access and land uses, and is in the process of being defined.
- **Rare, threatened or endangered species** - means any plant or animal species protected under the provisions of the New Mexico Endangered Plant Species Act of 1985 (Section 75-6-1 NMSA 1978), the New Mexico Wildlife Conservation Act of 1974 (Sections 17-2-37 through 17-2-46 NMSA 1978 (1995 Repl. Pamp.)), and the federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) all as may be amended from time to time.

- **Recharge** - The addition of water to an aquifer by infiltration, either directly into the aquifer or indirectly by way of another rock formation. Recharge may be natural, as when precipitation infiltrates to the water table, or artificial, as when water is injected through wells or spread over permeable surfaces for the purpose of recharging an aquifer.
- **Recovery Plan** – The ESA requires the FWS to prepare a plan to improve the status of a listed species to the point where the species need no longer be listed. A recovery plan typically sets population goals, identifies tasks to reverse or arrest the decline of a species and criteria for delisting the species.
- **Recreate** – to refresh by means of relaxation and enjoyment, as restore physically or mentally. An action or lack thereof, which results in relaxation, entertainment, and is enjoyed by those who participate.
- **Reintroduction Plan** – Under the ESA, a reintroduction plan is a specialized recovery plan designed to restore a threatened or endangered species to its historical habitat. A reintroduction plan will document the habitat area to be occupied and specific management actions to be taken to ensure the successful reintroduction of the listed species. Alternatively, a reintroduction plan by a state wildlife agency will return fish, game or other wildlife to an area where they have been extirpated.
- **Research Natural Area (“RNA”)** – A type of area of critical environmental concern or ACEC under BLM land use planning process where natural ecological and physical processes are allowed to occur and human activities are prohibited if they will interfere with the natural processes. Under Forest Service land use policy, an RNA is an area identified as a reference area to evaluate the impacts of management in similar environments, including areas for research and areas to be protected for biodiversity or threatened, endangered and sensitive species.
- **Riparian** – An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and stream banks are typical riparian areas.
- **Riparian Zone** - A riparian zone or riparian area is the interface between land and a river, lake or stream. Plant habitats and communities along the river margins and banks are called riparian vegetation, characterized by hydrophilic plants. Riparian zones are important in ecology, environmental management, because of their role in soil conservation, their habitat biodiversity, and the influence they have on fauna and aquatic ecosystems, including grasslands, woodlands, wetlands, or even non-vegetative areas.
- **Runoff** - Water not absorbed by soil or landscape to which it is applied. Runoff occurs when water is applied too quickly (application rate exceeds infiltration rate), particularly if there is a severe slope. Storm water runoff is created by natural precipitation rather than human caused or applied water use. The part of the precipitation that appears in surface streams.
- **Senior Water Rights** - Have earlier priority date and claimants who hold them have a higher priority to divert water from a stream or water body than those with more junior rights. However, in times of scarcity, when there is not enough water to meet demand in a basin, those who need water for domestic and livestock use have first right to water, regardless of one’s priority date.

- **Species of Greatest Conservation Need (SGCN)** - Species considered for inclusion had to occur within the state of New Mexico and meet at least one of the following conditions:
 - Declining: Species that have experienced substantial long-term declines in habitat or numbers.
 - Vulnerable: Species in which some aspect of their life history and ecology makes them disproportionately susceptible to decline within the next 10 years. Factors include, but are not limited to, concentration to small areas during migration or hibernation; low reproductive rates; susceptibility to disease, inability to respond to changing climate conditions, habitat loss, wildfire, and overexploitation for anthropogenic purposes.
 - Endemic: Species that are limited to New Mexico.
 - Disjunct: Species that have populations geographically isolated from other populations of the same species and are thereby disproportionately susceptible to local decline or extirpation.
 - Keystone: Species that are crucial to the integrity and the functioning of their ecosystems. These species may represent more value to conservation of biological diversity than the size of their population or their distribution would suggest.
- **Shade Balls** - Plastic spheres that float on top of livestock water tanks, that can lower evaporation dramatically, keep birds from spoiling water with excessive droppings, prevent algae and moss growth, and reduce freezing.
- **Soil** – Loose material from the earth's surface in which all things grow, from which lands within the SQSWCD generate upwards of \$.75 billion annually, and which constitutes geologic sedentary and sedimentary accumulations.
- **Species of Concern or Special Status Species** – This term includes species that have been proposed for listing under the Endangered Species Act or have already been listed as threatened or endangered, as well as species that are on the candidate list published in the *Federal Register*. The term also includes any state-listed species or any “sensitive species” identified by the BLM State Director, which includes the above categories and might also include species undergoing downward trends due to changes in habitat capability or populations or which occupy specialized habitats.
- **Spill Over** – This term refers to the movement of introduced or reintroduced wildlife into areas where they were not intended to be in the plan. The presence of such species will greatly limit land uses, especially when the species is protected under the ESA or other federal and state laws.
- **Standards** – Standards are synonymous with goals and are observed on a landscape scale. Standards apply to rangeland health and not to the important byproducts of healthy rangelands. Standards relate to the current capability or realistic potential of a specific site to produce these by-products, not to the presence or absence of the products themselves. It is the sustainability of the processes, or rangeland health, which produces these byproducts.
- **Sustained Yield** – A “high-level” output of renewable resources that does not impair the productivity of the land. The continuation of a healthy desired plant community.
- **Takings in Context of Endangered Species Act** – Includes harm to a protected species when an act actually kills or injures wildlife. Such act may include significant habitat modification or degradation

where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. 50 C.F.R. §17.3.

- **Takings in Context of Property and Right to Compensation** – A ‘taking’ of property is generally defined as to deprivation of the right of use and enjoyment of the property. The ownership of property is often described as a “bundle of sticks” which includes mineral rights, rights of access, rights to use the surface, and rights to use the fruits raised from the surface, such as crops or grass. When land use regulation by federal, state or local government interferes with one of those rights in the bundle of sticks, a taking occurs only if it deprives the owner of all of his bundle of sticks or “investment-backed expectations.” More recent decisions will find a taking when the deprivation is total but temporary or when the deprivation precludes an essential element of the property right, such as the right to exclude others. Federal land agencies enjoy a much greater presumption of authority to limit the exercise of private property rights and successful takings cases more often involve disputes with a local government or state agency.
- **Unintended Consequences** – 1. Impact or damages that do not directly and immediately flow from the act or the policy implementation. 2. The result of unforeseen circumstances that are not predictable or immediately apparent to the casual observer without local input.
- **Visibility Protection Plan** – A plan that implements the requirements of the Clean Air Act.
- **Visibility or Visibility Impairment** – Visibility refers to amount or lack of haze that obscures the ability to see great distances. Visibility impairment measures the extent of haze composed of various air pollutants which manifest as a white or brown haze. This is a major issue with respect to national parks and wilderness areas, which are Class I air quality areas and are given the highest level of protection.
- **View** – The sight or prospect from a particular point, typically an appealing sight.
- **Viewshed** – The geographic area surrounding the visual area to be inventoried and managed.
- **Visual Condition Class** – The Clean Air Act recognizes four air quality classes with Class I applying to national parks and wilderness areas and Class II applying to all other federal land areas, such as National Forests, National Wildlife Refuges, and public lands. Visual conditions are affected by particulates, emissions including ozone, sulfur oxide, nitrogen oxide, carbon dioxide and the chemical reactions caused by humidity and sunshine.
- **Visual Resources** - Visual resources in the District are a composite of landforms, human and animal life forms, water features, cultural features, terrain, geologic features and vegetative patterns which create the visual environment. These visible physical features are important to the landscape and the scenic quality of the District.
- **Water** – To supply with water. Irrigate, sub-irrigate, dampen, vaporize, humidify, hose, spray, douse, drench, submerge, immerse, saturate, plunge, dip, splash, sprinkle, moisten, wet, and soak. In all form i.e. subterranean, surface, captured, recaptured, processed or wild. All waters (subterranean, ponds, pools, stream, river, wild and or contained arroyos) within the footprint of SQSWCD.

- **Water Conservation** - Is reducing the use of water through technologic or social methods. It includes policies, practices, and education that promote the efficient use of water such as minimizing losses, reducing waste, minimizing use, and protecting availability for future uses. These policies and practices can range from more efficient practices in farm, home, and industry to capturing water for use through water storage or land-use practices.
- **Water Right** - Legal rights to use a specific quantity of water, on a specific time schedule, at a specific place, and for a specific purpose.
- **Watershed** – The total land area, regardless of size, above a given point on a waterway that contributes runoff water to the flow at that point. It is a major subdivision of a drainage basin. The United States is generally divided into 18 major drainage areas and 160 principal river drainage basins containing about 12,700 smaller watersheds. The entire region or land area that contributes water to a drainage system or stream, collects and drains water into a stream or stream system or is drained by a waterway (or into a lake or reservoir). More specifically, a watershed is an area of land above a given point on a stream that contributes water to the streamflow at that point. A region or area where surface runoff and groundwater drain to a common watercourse or body of water. The area drained by a river or river system enclosed by drainage divides. An area of land that drains to a single water outlet. A watershed is also known as a sub-basin.
- **Weather Modification** - Is the act of intentionally manipulating or altering the weather. The most common form of weather modification is cloud seeding, which increases rain or snow, usually for the purpose of increasing the local water supply. In New Mexico, the New Mexico Interstate Stream Commission is responsible for the administration of applications for weather modification programs, under **Title 19 - NATURAL RESOURCES AND WILDLIFE, Chapter 17: Weather Modification, Part 2: Weather Control and Precipitation Enhancement, and Chapter 75 - Miscellaneous Natural Resources Matters, NMSA 1978 - Article 3 - Weather Control and Cloud Modification.**
- **Wilderness Act of 1964** – Congress established the National Wilderness Preservation System to protect and preserve those areas deemed to be wilderness, which is defined as: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. 16 U.S.C. §1131(a).
- **Wilderness Area** – Tracts of land designated by an act of Congress to be part of the National Wilderness Preservation System.

- **Wilderness Study Area or WSA** – An area of land identified by Congress or a federal agency pursuant to Congressional direction to be evaluated for its suitability for designation by Congress as part of the National Wilderness Preservation System. Regarding public lands managed by the Bureau of Land Management, it refers to tracts of public lands determined to meet the definition of wilderness based on the wilderness inventory and review conducted by the Bureau of Land Management pursuant to Section 603 of the Federal Land Policy and Management Act, 43 U.S.C. §1782. A WSA typically meets the definition of wilderness in that it is “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” 16 U.S.C. §1131(c.)
- **Wildlife** – Populations, variety, and distribution of non-domestic birds, mammals, reptiles, amphibians, invertebrates and plants.

2.2 ANNUAL ACTION PLANS

The District develops annual work plans to advance the objectives of the Land Use Plan.

2.3 POLICIES AND PROCEDURES

The goal of this District is to pursue and participate in projects that protect the health, welfare and safety of the community in general and its stakeholders in particular. The defining expectation is that the federal government must engage in methods to enhance and perpetuate agriculture ... not underwrite its removal from the landscape.

The District wants to ensure that the local, state, and federal agencies respect procedural due process rights by providing adequate public notice and the opportunity for a hearing, including an evidentiary hearing, when granted by statute. Regulatory actions, such as designation of critical habitat under the Endangered Species Act or denial of surface access across federal land, operate to inversely condemn private property without providing just compensation. The District supports providing legal remedies when federal or state governmental action operates to take property rights or some portion of the property right.

2.4 EMERGENCY ACTION PLANS – (FILED FOR REFERENCE)

2.5 COORDINATION AGREEMENTS – (SUCH AS THE QUAY COUNTY LAND USE POLICY PLAN, PARTICIPATING, CO-OPERATING, AND STEWARDSHIP AGREEMENTS OR MEMORANDUMS OF AGREEMENT WITH STATE AND FEDERAL AGENCIES) PLUS ANY AGREEMENTS WITH OTHER LOCAL GOVERNMENTS OR NON PROFITS.

3.0 PURPOSE, CUSTOM AND CULTURE, AND GOAL

3.1 PURPOSE

The SQSWCD will address the use and management of natural resources, especially ground and surface water-resources, watersheds, rangeland, soil health, water conservation, and farmland within the political jurisdiction of SQSWCD as the heart of its comprehensive planning efforts. The closer decision-making is to the land and to the people who make use of the land, the more informed it will be as to the conditions of the land and the needs and desires of those who live, work and recreate there.

The purpose of the Plan is to guide policy concerning soil and water natural resource conservation and enhancement as needed and is intended to provide a framework for local, county, state, and federal agencies in land use planning that affect the resource universe in the District. Additionally the Plan is meant to safeguard the historic, traditional, conceptual and future conservation measures of these resources against all encroachments that may jeopardize their sanctity and beneficial use.

3.2 CUSTOMS AND CULTURE

The historic and contemporary influence of agriculture is the foundation of the community's customs and culture. Farms, ranches and support businesses have played and continue to play a fundamental role in local social and economic well-being. SQSWCD is increasingly concerned increasing regulations and land use changes within the dominion of federal land ownership are reducing the viability of farms and ranches. To reverse such trends, SQSWCD supports, encourages and promotes policies that will lead to the long term economic strength of the underpinnings of these customs and culture.

Protection of the customs and culture of the local area requires protection of the tax base, including the right (responsibility of the SQSWCD) to conserve, protect, encourage, develop and improve agricultural land for the production of agricultural products, and to reduce the loss to the state of its agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance

Federal Lands Policy and Management Act of 1976 (FLPMA) Section 102 has 8 values: Scientific, Scenic, Ecological, Environmental, History, Archeological, Air and Atmospheric, and Water. History is the only one that reflects customs and culture. Modern agency management reflects only scientific, scenic, archeological, ecological, environmental, air and atmospheric, and water. Federal land management plans are generally silent on historical features. SQSWCD strongly believes in the need to elevate the importance of historical values, and ensure that all 8 values are equal IN ANY decision made by land management agencies.

Continued equilibrium must be achieved through District interactions with local, state, and federal agencies to imagine and implement plans that meet changing conditions and needs. This interaction is critical to the well-being of the District and its ability to adapt for future needs. The District is intent on maintaining current and encouraging future protection of rights to maintain an environment capable of producing opportunities for future generations.

3.3 GOALS OF THE PLAN

1. Maintain and improve the soil, vegetation and watershed resources in a manner that perpetuates, sustains, and expands the beneficial uses of such resources while maintaining healthy ecosystems and fully supporting public safety, the customs and economic stability and viability of our industries and the gen-

eral welfare of the citizens of the District.

2. Provide the plans and policies that direct the SQSWCD in coordination with local, state, and federal bodies and agencies regarding planning, outlining, orchestrating, scheduling, mapping, designing, facilitating, imagining, formulating, designing, plotting, or strategizing land use plans that will affect the soil, water, and other resources of the District today, tomorrow, or further into the future.
3. Work with local, state and federal government agencies to fulfill the District's primary legal responsibility to provide for the health, safety, and well-being of their constituents.
4. Work to reduce any possibility of unintended consequences from decisions and actions that may be taken by agencies that can negatively affect the District; its economy, its tax base and the people it serves. Such action, in general, seeks to minimize the unintended consequences to the local land users from ongoing governmental courses of conduct.

4.0 PRIMARY PLANNING GUIDANCE AND DIRECTIVES

- The state of New Mexico has authorized the creation of SQSWCD with powers and duties to accomplish the legislative determination of the Act.
- Congress has mandated stabilization of soil and water through the Soil and Water Resources Conservation Act . . . "Recognizing that the arrangements under which the Federal Government cooperates . . . through conservation districts, with other local units of government and land users, have effectively aided in the protection and improvement of the Nation's basic resources . . . it is declared to be policy of the United States that arrangements and similar cooperative arrangements be used to the fullest extent practicable . . ."
- Congress has mandated . . . "Federal agencies shall coordinate with local and state agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."
- With District coordinated actions, federal agencies must be consistent with officially approved and adopted local land use plans, as long as such local plans are consistent with federal law and regulations.
- Work with all federal agencies to ensure resource management plans or management framework plans list known inconsistencies between their plans and district plans and submit those inconsistencies to the Governor of New Mexico. Agencies are obligated to take all practical measures to resolve conflicts between federal and local government land use plans.
- Federal Agencies are required to submit a notice of intent to prepare, amend, or revise a resource management plan to State Agencies, consistent with State procedures for coordination of Federal activities.
- Executive Order 12630 mandates . . . "Federal Agencies are required to analyze the economic effects or

taking implications of the proposed policies, decisions, rules and regulations on the private property, private property rights and investment backed expectations of individual citizens.”

- Federal agencies are obligated to coordinate their planning processes with local government land use plans. **43 C.F.R. §1610.3-1(a)**. The National Environmental Policy Act (NEPA) commands federal agencies to “discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned).
- Congress intended NEPA to apply to every action that significantly affects the quality of the human environment and the thresholds of local conditions are best observed and measured by local expertise. Considering the existing climate conditions in New Mexico, the effects on the population dynamics of fauna and flora are critical to the conditions affecting the community as well as the endangered species
- The District lands must be managed in a manner that will protect the quality and balance of natural resources as defined by the Act with the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archeological values with the intent to provide both stewardship and continued human occupancy and use.

4.1 OBJECTIVE

To create a coordinated working relationship with agencies and citizenry that protects and enhances local natural resources, safety and well-being for all.

The District constituency must have a regulatory environment that works for them, not against them, and minimizes any conveyance of harm to District land users. The regulatory environment should enhance lives, safety, and resources and improve the economy without imposing unacceptable or unreasonable costs. All regulatory policies must recognize the private sector and private markets are the engines for economic growth.

New regulatory approaches should respect the role of local and state governments and adopt regulations that are effective, consistent, sensible, and understandable. It is, therefore, imperative to set planning guidance for lands and resource interactions as they apply to matters of the District.

4.2 RESOURCE CONCERNS - No priority ranking has been established for the following resources concerns. The District will focus on each concern equally.

1. **Water resources**
2. **Soil**
3. **Agriculture**
4. **Range and Grassland**
5. **Livestock and Wildlife**
6. **Energy/Renewable**
7. **Wildfire/Post Fire**
8. **Customs and Culture**
9. **Riparian habitat**
10. **Threatened and Endangered / Sensitive Species**
11. **Predator Control**
12. **Outreach and Education**
13. **Watershed Management**
14. **Climate Cycle/Weather Modification (aka Cloud Seeding/Water Enhancement)**
15. **Playa Lakes**

4.2-1 WATER RESOURCES

Under New Mexico's State constitution, all water is managed by the state of New Mexico. In 1931, the New Mexico Legislature passed the state's Groundwater Code and the Code gave the State Engineer control over groundwater administration. There are 39 underground water basins in New Mexico. The District is located in the Ft. Sumner Basin.

The majority of the District's water source is from the Ogallala Aquifer. The Ogallala Aquifer is an underground water reservoir, created more than a million years ago through geologic action and covers about 174,000 square miles mainly in Nebraska, Kansas, Oklahoma, and parts of New Mexico, Texas, South Dakota, Wyoming, and Colorado. The Ogallala is part of the **High Plains Aquifer System**.

Water in the High Plains (Ogallala) aquifer of eastern New Mexico is primarily derived from infiltration of precipitation or seepage from intermittent surface flow in streams. The rate of precipitation recharge varies from area to area in response to changes in climatic, soil, and topographic conditions. Most precipitation

recharge likely occurs during periods of snowmelt or prolonged rainfall when water is available for percolation and evapotranspiration rates are small. In eastern New Mexico, the aquifer supplied water to about 320,000 acres of irrigated farm and ranch land from about 6,000 wells. Groundwater withdrawal during the 1980s was about 519,000 acre-feet per year. The Ogallala will continue to be the lifeblood of the area only if it is managed properly.

According to the 2018 New Mexico State Water Plan Part II: Technical Report, the most dramatic and problematic groundwater mining is occurring in eastern New Mexico where the Northeast New Mexico and Lea County planning regions are dependent on the Ogallala/High Plains aquifer. **The region is projected to have about 26% of the supply needed to meet 2060 demands under average water supply conditions due to the rapid depletion of the Ogallala/High Plains aquifer.**

Water level declines are greater than 5 feet per year (ft/yr) in the most heavily pumped areas, and the saturated aquifer thickness than 50 to 150 ft thick. A recent study on the lifetime projections for the Ogallala/High Plains aquifer in east-central New Mexico (Rawling and Rinehart, 2018) concludes that many areas, are below the 30-ft threshold of saturated thickness necessary for a viable aquifer, and most of the remaining area has a projected lifetime of less than 10 years.

New Mexico has two primary agencies that have the responsibility for administering water throughout the state, the Office of the State Engineer (OSE) and the Interstate Stream Commission (ISC). The New Mexico Environment Department (NMED) has lead supervision over water quality. New Mexico has a type of water law called the "prior appropriation" system, which is found in most western states. This system gives preference in times of water shortage to those water rights with the oldest priority dates. The priority date of a water right is the date the water was first put to "beneficial use" on the land.

Currently, The Office of the State Engineer (OSE) maintains an administrative policy over water rights in which the user must put that water to "beneficial" use. A water right must continue to be used in perpetuity in order for the appropriator to maintain control of that water right. Historically, the conservation of water has not been categorized as "beneficial use." This administrative philosophy has resulted in a condition in which water rights holders cannot conserve their water rights in times of plenty for use in times of prolonged shortage. In 2003, the legislature modified the New Mexico statutes to include some provisions to promote water conservation without fear of loss of right due to failing to apply the water to beneficial use.

Additionally, NMSA 1978 72-5-28 (G), indicates that "periods of nonuse when water rights are acquired and placed in a state engineer-approved water conservation program, by an individual or entity that owns water rights, a conservancy district..., a soil and water conservation district..., and acequia or community ditch association ..., an irrigation district ..., or the interstate stream commission shall not be computed as part of the four-year forfeiture period.

NMSA 1978, Section 3-27-2 (2009) was amended in 2009 to prohibit municipalities from condemning water sources used by, water stored for use by, or water rights owned or served by an acequia, community ditch, irrigation district, conservancy district, or political subdivision of the state.

According to *Bulletin 164: Climate Change in New Mexico Over The Next 50 Years: Impacts On Water Resources*, the average temperature increase over much of the Eastern Plains is projected to be roughly a degree lower than the state average, but evapotranspiration is likely to experience among the greatest change in the state, leading to higher aridity. This is a consequence of projected decreases in precipitation during spring and summer, when evapotranspiration is highest. Summer precipitation is projected to decrease slightly over the next 50 years, but autumn and winter precipitation may increase slightly—with much uncertainty inherent in these projections. If an increase in extreme precipitation events does occur (regardless of changes to total precipitation), the Eastern Plains will be the most strongly impacted part of New Mexico by far, even more so than the mountainous regions.

Given the relatively flat topography of the Eastern Plains, some of the most dramatic climate relate impacts will be related to vegetation and soils. The drylands of eastern New Mexico are dominated by soils that are especially vulnerable to wind deflation (erosion) when subjected to extended drought-caused losses in vegetation and/or agricultural modification. The response of spatially extensive regions of eastern New Mexico to the next 50 years of climate and environmental change is most likely desertification, accompanied by significant increases in dust emission, as well as increased erosion on hillslopes.

The State Water Plan Act NMSA §72-14-3.1 (C)(6) states that a water plan should [also] “include a drought management plan designed to address drought emergencies and promote strategies for the prevention of drought-related emergencies in the future. The Plan should include the following:

- Support the use of recycled water or alternative sources of water in place of potable water when economically feasible.
- Encourage agricultural water conservation methods that do not increase consumptive use and advance soil health.
- Encourage water conservation measures to be developed in local and regional water plans and in building codes.
- Coordinate efforts to promote conservation among local, state, federal, and tribal governments.

Federal Reservation: The doctrine of federally reserved water rights was developed over the course of the 20th Century. Simply stated, federally reserved rights are created when the United States sets aside land for specific purposes, thereby withdrawing the land from the general public domain. In doing so, there is an implied, if not expressed, intent to reserve an amount of water necessary to fulfill the purpose for which the land was set aside. Federally reserved water rights are not created, or limited, by State law.

Regulation of pollution and water quality for the Nation’s waters has been achieved through a partnership between the state and federal government. This relationship has been successful because of the recognition that not all waters need to be subject to federal jurisdiction and that states have the primary responsibility of regulating waters within their individual boundaries. This federal-state partnership was established under the 1972 Clean Water Act (CWA).

On August 29, 2023, the U.S. Environmental Protection Agency (EPA) and Department of the Army (the agencies) announced a final rule amending the **2023 definition of “waters of the United States.”** The amendments conform with the U.S. Supreme Court’s May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. While EPA’s and Army’s 2023 rule defining “waters of the United States” was

not directly before the Supreme Court, the decision in Sackett made clear that certain aspects of the 2023 rule are invalid. Therefore, the agencies have amended key components of the nation's waters consistent with the Supreme Court's decision while advancing infrastructure projects, economic opportunities, and agricultural activities.

Exclusions from "Waters of the United States:"

The amendments to the January 2023 Rule do not change the eight exclusions from the definition of "waters of the United States" - The exclusions are:

- Prior converted cropland, adopting USDA's definition and generally excluding wetlands that were converted to cropland prior to December 23, 1985.
 - Waste treatment systems, including treatment ponds or lagoons that are designed to meet the requirements of the Clean Water Act.
 - Ditches (including roadside ditches), excavated wholly in and draining only dry land, and that do not carry a relatively permanent flow of water.
 - Artificially irrigated areas, that would revert to dry land if the irrigation ceased.
 - Artificial lakes or ponds, created by excavating or diking dry land that are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - Artificial reflecting pools or swimming pools, and other small ornamental bodies of water created by excavating or diking dry land.
 - Waterfilled depressions, created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction operation is abandoned and the resulting body of water meets the definition of "waters of the United States."
 - Swales and erosional features (e.g., gullies, small washes), that are characterized by low volume, infrequent, or short duration flow.
 - **Goal:** SQSWCD asserts that water is the most significant resource within its boundaries and believes water is necessary for life as well as essential for promoting economic well-being. Ensuring water quality and quantity is an investment but provides a high return. Water is critical for agriculture, residents, industry, and many service activities. SQSWCD will provide proactive support for corrective and conservation practices and programs to protect the public and conserve, expand, extend, and develop beneficially the water resources of the District.
- SQSWCD will assure the policies and actions of the local, state and federal government in matters of water resources protection fully takes effect to the benefit of that resource.
- **Guidance:** All New Mexico water laws and State and federal laws that regulate water quality regarding point and nonpoint sources of water pollution.

- **Objectives:**

The District will

1. Coordinate with partners, local governments, and organizations chartered for the benefit of the Ogallala, to instigate a means to maintain and improve the Ogallala Aquifer. As well as encourage locally driven collaborative solutions.
2. **Will continue it's long-term groundwater monitoring project.** In the first phase of the project, preliminary data was gathered for characterization of the local aquifer(s) and included baseline static water levels for all the wells, and water chemistry for wells still in use. In the second phase, four pressure transducers were installed in 2021 in three wells adjacent to playas and one well that is not near any playas or drainages. These transducers measure water level twice daily. **Future efforts include expansion of the number of wells being monitored both for biannual static water level measurements and for installation of pressure transducers, as well as expanded sampling for water chemistry and tritium.**
3. Follow the 50-Year Water Action Plan (Action B3) - "Fully fund and implement the Aquifer Mapping and Monitoring Program at the New Mexico Bureau of Geology and Mineral Resources and establish an integrated statewide groundwater monitoring network in order to better understand complex aquifers and track changes" in order to ensure SQSWCD has the information needed for it's water supply issues.
4. Water reuse can extend water supplies, but it requires additional infrastructure and more sophisticated systems. To stay current with this effort the District will follow the 50-Year Water Action Plan (Action B1) "create a program framework and guidelines for desalination and wastewater treatment, reuse" and (Action B2) "Develop and implement comprehensive water reuse rules for potable and non-potable reuse of treated wastewater." This can be an additional solution for the water shortages within SQSWCD boundary.
5. Promote the investment in rainwater harvesting systems to capture, divert, and store precipitation for landscape irrigation, domestic use, and aquifer recharge;
6. Promote research that helps cooperators transition to lower water requiring crops or livestock based forage systems or improved dryland crop production systems.
7. Promote brush control to remove species that reduce recharge to aquifers. If Prescribe fire is used, inform cooperators and local agencies of the New Mexico Prescribed Burning Act (NMSA 1978, Section 68-5-1 *et seq.*) and subsequent amendments.
8. Coordinate with local and state agencies on the transfer of irrigation water rights to meet present and future agriculture, domestic and industrial water requirements and the resulting erosion from the abandoned lands.
9. Promote and provide technical assistance to SQSWCD agriculture producers with conservation related programs, both state and federal, that implement agricultural water enhancement activities or agricultural land for the purposes of conserving surface and ground water and improving water quality.

10. Promote technology that helps prevent evaporation from drink tanks i.e. shade balls and other technology.

4.2-2 SOIL

Soil is not an inert growing medium – it is a living and life-giving natural resource. It is teeming with billions of bacteria, fungi, and other microbes that are the foundation of an elegant symbiotic ecosystem.

Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. Soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. Healthy soil cannot be determined by measuring a single outcome so indicators are used. Indicators are measurable properties of soil or plants that provide clues about how well the soil can function. Indicators can be physical, chemical, and biological properties, processes, or characteristics of soils. They can also be morphological or visual features of plants.

Dynamic soil quality is how soil changes depending on how it is managed. Management choices affect the amount of soil organic matter, soil structure, soil depth, and water and nutrient holding capacity. Soils respond differently to management depending on the inherent properties of the soil and the surrounding landscape.

The soil health foundation consists of five principles: 1) Keeping soil covered; 2) Minimizing soil disturbance; 3) Maximizing biodiversity; 4) Maintaining a living root; and 5) Integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species (like earthworms).

Soil plays a strong role in determining how New Mexico's diverse landscapes will respond to climate. Soil cover acts like a sponge, holding in water that falls as rain or snow. Soil enhances other processes such as infiltration of water and aquifer recharge. Loss of vegetation due to warmer climate increases erosion, in many cases caused by wind, where soils that are not well developed are easily damaged. In the Eastern Plains, large amounts of dust will be produced (*Bulletin 164 - Impacts on Water Resources*).

Goal: Provide proactive support for corrective and conservation practices and programs to conserve, protect, and beneficially develop the soil resources of the District. It is also the goal of SQSWCD to institute and manage vegetation and landscape projects that will mitigate blowing dust. Windblown dust in this area occurs both from natural and man-made sources.

- **Objectives:**

1. Ensure the policies and actions of the local, state, and federal government in matters of soil resource protections meet the standards the District has set for the benefit of the resource.
2. Encourage land managers and landowners to seek technical assistance to mitigate surface disturbance and to facilitate soil and water conservation. Reestablish native or other desired vegetation. Further the progress of the establishment of permanent vegetative cover on poor quality cropland from which water rights have been removed.

3. Accelerate projects such as brush control which support the natural replenishment of our grass base.
4. Actively promote reduce till or no till systems. Seek funding opportunities for no till equipment appropriate for the District landowners.
5. Seek funding opportunities to continue conducting soil health tests. The goal is to gather a baseline throughout the entire District.
6. Impart vital and necessary technical information to renewable energy companies, Quay County and district cooperators on layout, design, and maintenance to reduce erosion and how to implement drainage structures on county, private, and energy company's access roads.
7. Provide technical information on native grass reseeding of any disturbed soils including but not limited to access road construction, transmission lines, pipelines and wind energy pads.
8. Coordinate with renewable energy companies to make certain the companies understand they are responsible for natural resource best management practices within District boundaries that consist of; soils, erosion control, and stormwater management.

4.2-3 AGRICULTURE

"The land, waters, and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state." 73-20-26. Legislative determination; purpose of act. (1965), Chapter 73 Article 20, Sections 25 through 49, New Mexico Statutes, 1978, Annotated.

As stated in the *Resilience in New Mexico Agriculture* report, "Agriculture in New Mexico faces unprecedented challenges to the health of the industry. New Mexico has an aging population of farmers and ranchers, increasing pressure on water and other natural resources, rising costs for land, energy, equipment and other production needs, unsustainable farmer and rancher incomes, and complex regulations. Incremental approaches are not sufficient to address the systemic challenges facing agriculture in our state."

In order for New Mexico agriculture to remain resilient for years and generations to come, the state must:

- Create common ground regarding agriculture policies
- Advance economic growth and stability for communities
- Address fundamental water and land use challenges
- Support young people pursuing careers in agriculture
- Promote agriculture's contributions to health-related solutions for consumers and communities.

SQSWCD's Land Use Plan comprehensively provides the policies that allow for the continuation of farming and ranching with all the associated and supporting businesses that have made lands within SQSWCD so productive. All agriculture is dependent on proper soil erosion control, flood prevention, wildlife and species management, which are the responsibilities of this District.

- **Goal:** It is the intent of SQSWCD to take an assertive attitude to the perpetuation and enhancement of Agriculture as well as protect water rights as well as conserve water within the District. Also, to maintain

the overarching belief this District has to recognize the value of rural communities beyond their economic contributions. District cooperators believe deeply in the cultural value of agriculture, and its contribution as a source of rural vitality and family unity.

- **Guidance:** Sections 47-9-1 through 47-9-7 NMSA 1978 “Right to farm Act” - The purpose of the Right to Farm Act is to conserve, protect, encourage, develop and improve agricultural land for the production of agricultural products and to reduce the loss to the state of its agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance.

Essential activities to sustain New Mexico's agricultural future:

- Conserve and enhance natural resources • Stabilize costs and revenue to sustain a viable living wage • Transition effectively to the new generation of farmers and ranchers • Expand market opportunities • Garner public and policymaker support.
- **Objectives:**
 1. Take a lead in communicating and seeking government to government endeavors with other districts for the benefit of Agriculture.
 2. Pursue policy standards that result in zero net loss attrition of the farmland base.
 3. Advocate during periods of drought or other emergencies, local, state, and federal agencies shall work closely with the District, the NM State Engineer, and other local, state, and federal agencies to address availability of water for critical needs, specifically agriculture and municipal uses.

4.2-4 RANGE AND GRASSLAND

Stewardship of vegetation composition, cover, and production is the foundation of sustainable rangeland management. When applying principles and making changes, it is crucial that a cooperator determines what information is scientifically correct and what methods are feasible to implement on their lands. Despite many alternative methods like “take half, leave half,” adaptive multi-paddock grazing (AMP) or management intensive grazing (MIG), rangeland management principles are limited, never changing and withstand the test of time. The District recommends a cooperator should rely on the 5 range management principles as a starting point for what management methods will be most effective on their lands:

- Adaptive management - always be ready to adjust to environmental and industry changes and monitor rangelands throughout the year.
- Implementing a grazing plan - A grazing system to follow throughout the grazing season to ensure rangeland is being properly grazed (at the right time, for the correct duration, with the proper number of animals) and receiving an adequate recovery period to promote the native plant community.
- Ecosystem biodiversity - Biodiversity is defined as the variability among living organisms.
- Residual forage - a critical part of the ecosystem, it protects the soil from water and wind erosion, promotes water infiltration, reduces water loss from evaporation, maintains soil temperature, increases soil nutrients and helps sequester carbon dioxide in the soil.

- Climate ready - have a plan in place for the “what if” scenarios

Diversity of grasses, provide a wider range of nutrients for grazers, promotes a diversity of soil microorganisms, and are more resilient to the stress of drought. Carbon in the soil can be increased by at least 25 percent. For every one percent increase, the soil can hold an additional 60,000 gallons of water per acre. Some of this water re-enters the water table and about 70 percent goes into the aquifer. More water retention also means cooler soil—critical in a dry climate.

Effective, economically sustainable native invasive species management systems must be based on available biological and ecological peer reviewed science of the specific species. The District will also rely upon knowledge gained from past successes and failures in managing native invasive species, woody native shrubs and other noxious range and grassland species.

- **Goal:** Support and facilitate the continued use of private and state lands for the production of livestock. Also, work to increase productivity of rangeland to increase and/or maintain Animal Unit Month ("AUMs") to maximum sustainable levels on rangeland within District boundaries as well as maintain and enhance desired plant communities for the benefit of watersheds, wildlife, water quality and livestock grazing.

- **Guidance:** Land management plans, programs, and initiatives should provide that the amount of domestic livestock forage, expressed in animal unit months, for permitted, active use as well as wildlife forage, be no less than the maximum number of animal unit months sustainable by range conditions in grazing allotments, based on “on-the-ground” and scientific analysis. This is essential to the proper operation of the District. Livestock producers do more than contribute to the economic stability of the community, which helps the District, but are also the primary entities that help to implement the Districts programs. Any reductions in domestic livestock animal unit months must be scientifically based upon rangeland conditions.

- **Objective:**

1. Work closely with local, state and federal agencies to identify areas for brush management and control, based on wildlife habitat needs, without compromising overall rangeland vegetation productivity. Promote and develop treatment projects for brush management on lands that have invasive species such as but not limited to; mesquite, salt cedar, and cholla.
2. Encourage the use of coordinated range management plans (allotment management plans or coordinated activity plans) for each grazing allotment that allow for the flexibility and updating of management during the ten-year term of the grazing permit. (*i.e.* water development; brush control; re-seeding, fencing, salting plans, herding plans and grazing systems).
3. Support management of rangelands to maintain and enhance desired plant communities for the benefit of watersheds, wildlife, water quality, and livestock grazing.
4. Support and facilitate range improvement projects to benefit rangeland, soil and water resources.
5. Coordinate with federal and state agencies on any planned or potential federal or state land acquisition.

tion within SQSWCD boundaries. Encourage federal and state land management agencies to focus on lands currently under its responsibility.

1.2-5 LIVESTOCK AND WILDLIFE

The production of livestock in Quay County is necessary to the area economy, tax base, and the livelihood of the ranching / farming businesses and related industries and it is also vital to the well-being and continued health of natural resources on state and private lands. SQSWCD shall strive to protect our farming / ranching heritage, as it is a primary foundation of the custom and culture of the District.

- **Goal:** SQSWCD will place an emphasis on the management of vegetation and landscape projects that will 1) maximize grassland development for livestock and wildlife, collectively, 2) expand water supplies and systems to support such populations on an availability standard, 3) encourage research to determine benefits of more complex grazing practices, 4) work with the New Mexico Department of Game and Fish (NMDGF) to elevate quality hunt opportunities, and 5) educate the general public of the benefits and the symbiotic relationships of livestock and wildlife in this desert environment 6) Encourage wildlife management practices that sustain wildlife resources and habitat without measurably degrading other multiple use activities or private property rights.

SQSWCD will urge land management agencies to: upon termination of a grazing permit, livestock permittee will be compensated for the remaining value of improvements such as water infrastructure, or be allowed to remove such improvements that permittee made on his or her allotment.

SQSWCD will coordinate with the land management agencies to ensure permanent increase or decreases in grazing allocations reflecting changes in available forage will be based on the vegetative type of available forage and applied proportionately to livestock or wildlife based on their respective dietary need.

- **Guidance:** Agriculture in New Mexico has evolved into a multi-billion dollar industry, and it remains a significant economic driver in all parts of the state. The eastern regions of New Mexico collectively account for 83 percent of the total agricultural impact in the state.
- **Objectives:**
 1. Support opportunities for livestock grazing on private, and state lands. This includes advocating for the protection of equitable property rights, science-based land stewardship, and promotion of Best Management Practices for the improvement and continued use of all rangelands within the District.
 2. Coordinate with the NMDGF to develop specific wildlife harvest targets, quality hunts, depredation mitigation, and future management plans to unite private / agency endeavors.
 3. Promote and coordinate water and water distribution system installation and infrastructure improvements to benefit all wildlife and livestock health and welfare within the District.
 4. Recommend all governmental land management agencies cooperate with the District and the agriculture industry to define desired plant communities on all lands within the District.

5. Work with all landowners and land managers to increase productivity of rangeland to increase and/or maintain AUMs that maximum sustainable levels on rangeland. Any grazing AUMs that are placed in a suspended use category should be returned to active use when range conditions improve.

4.2-6 ENERGY/RENEWABLES

All energy sources have some effect on our environment. Energy resources occur without regard to whether the land is private, state, or federal ownership. These resources have, and continue to, provide economic benefits for the citizens within the jurisdictional boundaries of the District.

The District recognizes that effective development of its abundant energy resources is necessary to the economic well-being of the county, the state, and the nation. Energy resource extraction is also consistent with the local history, custom, and culture.

Goal: SQSWCD will coordinate with and expect all energy companies to inform the District of all planned, developed or updated energy / renewable energy projects within the District's jurisdictional boundaries. SQSWCD expectations are that all energy projects will not cause direct or indirect harm to rangeland, soil, air quality, and water resources as well as wildlife habitat. Protect the rights of landowners and surface owners so that mineral development can continue consistent with the District's mandate to conserve soil and water resources.

- **Guidance:** Sections 73-20-25 through 73-20-48 NMSA 1978, considered and resolved by legislative action, the purpose of the Act declared that 1) the land, waters and other natural resources are the basic physical assets of New Mexico, and their preservation and development are necessary to protect and promote the health and general welfare of the people of the state; 2) the improper use of land and related natural resources, soil erosion, and water loss result in economic waste in New Mexico through the deterioration of the state's natural resources, and; 3) appropriate corrective and conservation practices and programs must be encouraged and executed in New Mexico to conserve and develop beneficially the soil, water and other natural resources of the state.
- **Objectives:**
 1. Impart vital and necessary information to renewable energy companies **to avoid unnecessary new roads and minimize fragmentation.**
 2. Coordinate with renewable energy companies to make certain the companies understand they are responsible for natural resources best management practices within District boundaries and develop a plan that consists of but not limited to; **soils, erosion control, water usage/conservation, range disturbance, invasive species and suppression of wildland fire caused by the company's equipment.** The company will also be informed that they need to provide a wildland fire suppression plan to the local RFD/VFD as well. **Instruct the renewable and /or energy companies that the District will need a copy of the plan covering all of the above.**

3. Coordinate with the appropriate agencies and energy developer to avoid locating energy facilities/ transmission lines in areas identified as having a demonstrated high risk to wildlife, water resources, historical sites and agriculture land uses.
4. Ensure the disturbed sites are immediately stabilized to conserve soil. Ensure that interim vegetation is planted to hold soils, including the use of sterile, nonnative seeds, and that the final reclamation is done on disturbed areas by using native species when seeding or planting.
5. Provide technical support to the appropriate cooperators to ensure that pipeline corridors, transmission lines, facilities, and other rights-of-ways are properly maintained to minimize soil and natural resource damage.
6. **Abandoned energy sites or any construction conducted by the energy company** - If a renewable energy company abandoned developed sites, the District will be notified a reasonable amount of time prior to the company leaving and a plan will be needed by the District to ensure best management practices occur.
7. Energy companies **will not** introduce and spread non-native invasive species. To avoid this, the contractors will follow SQSWCD policies for non-native invasive/noxious plant control. Contractors should inspect and clean their vehicles and equipment arriving from areas with known invasive species issues. Contractors should also use locally sourced topsoil when applicable and monitor for and rapidly remove non-native invasive/noxious weeds at a minimum least annually.

4.2-7 WILDFIRE

Wildfire is a function of fuel loads and drought. Both issues are part of the resource management aims and obligations of the District's responsibilities. Detrimental and beneficial outcomes of fire regimes need to be determined on the greater landscape within SQSWCD boundaries

SQSWCD recognizes that intense wildfires harm organic material in the soils, increase soil erosion and pollute water, and cause significant damage to rangeland and forested resources, water treatment facilities, irrigation systems, and the loss of fish and wildlife habitat. When forested or rangeland areas are not managed and fuel loads build up, the wildfire managed under a "planned and unplanned" policy can lead to catastrophic consequences.

IN New Mexico the notion of what constitutes a "large" wildfire has grown substantially over the past decade. Since 2000 the size of the largest fire recorded in New Mexico has more than quintupled. Wildfire severity is increasing and fires are spreading at unprecedented rates.

Planned and unplanned ignitions can achieve land and resource management goals. However, fire management should be only one tool in the restoration process and should be integrated with all other land management activities.

- **Goal:** SQSWCD will support the right of local citizens to protect their private property from wildfire. Planned and unplanned ignitions can achieve land and resource management goals. However, fire management should be only one tool in the restoration process and should be integrated with all other land management activities.

The Districts long term plans, policies and projects rely upon proper vegetative management on all lands, private, state and federal. Therefore, it is imperative that when the District identifies lands with excessive vegetation that increase the opportunity for wildfires, that it will coordinate with those agencies and landowners to assist in reducing the potential hazard.

- **Guidance:** The District recognizes wildfire is a function of fuel loads and drought. Both issues are part of the resource management aims and obligations of the District's responsibilities.
- **Objectives:**
 1. Support training for all volunteer fire department member in the basics of wildland firefighting. To accomplish this the District will support NM State Forestry Division and any other land management agency with suppression responsibilities, in the training of VFD and RFD fire departments. The ultimate objective is to have a majority of volunteers that are qualified and can be allowed to have unencumbered access to all lands within the District.
 2. Through coordination with land management agencies and landowners, the District will assist in developing policies for grazing rest prescriptions related to either wildfires or prescribed burns on a site-specific basis taking into account the needs of the vegetation and flexibility to meet the needs of the landowner and to protect excessive soil erosion. Vegetative treatments and use of livestock grazing shall be used to keep fuel loads within appropriate limits
 3. Assist in developing plans and projects that strike a balance of beneficial use of fire and the detrimental effects of intense wildfire.
 4. Continue to support area Community Wildfire Protection Plans; Quay County Fire Departments and RFD/VFDs.
 5. Post-fire grazing will not be limited when monitoring and evaluation produces relevant, accurate data that demonstrates grazing will not unduly harm the range.
 6. Encourage development of vegetation treatments and use of livestock grazing to keep fuel loads within appropriate limits.

4.2-7 (a) POST WILDFIRE RESTORATION OBJECTIVES:

1. Coordinate existing programs in New Mexico that can help communities and landowners implement post-fire response e.g. fire rehabilitation and weed control, on private, municipal and other lands that do not qualify for a local, regional, or national Burn Area Emergency Response (BAER).
2. Coordinate with Farm Service Agency (FSA) to assist landowners with post natural disaster losses e.g. drought, flood, fire, freeze, tornadoes, pest infestation. For example, FSA provides various program assistance; Livestock Forage Program which compensates eligible livestock producers for grazing losses due to fire or the Emergency Conservation Program which provides emergency funding and technical assistance to rehabilitate farmland damaged by natural disasters.

3. Coordinate with NRCS with the Emergency Watershed Protection (EWP) program following natural disasters.
4. Coordinate with the NRCS NM Burned Area Initiative which is part of the NRCS' Environmental Quality Incentives Program (EQIP). The Burned Area Initiative is designed to help landowners restore conservation practices destroyed in fires or by off-site fire impacts.
5. Coordinate with New Mexico Environmental Department (NMED) with free testing of private domestic wells to check for contamination after a wildfire.

4.2-8 CUSTOM AND CULTURE

The people of Quay County have traditionally earned their livelihood from activities associated with natural resources. The economy of the County in the past and today depends on the availability and utilization of natural resources. Directly or indirectly, the majority of the people employed in Quay County depend on farming / ranching, recreation, and other activities related to the availability of natural resources. Collectively, the past and future represent the customs and culture of the District.

- **Goal:** To coordinate all activities in a manner that will protect the quality of customs and culture derived from historical and environmental values; that, where appropriate, will use and protect all lands in a condition that will promote land health which contributes to community economic freedom and security. The District will undertake such actions in a manner that serves all citizens with a high standard of ethical and objective leadership.

- **Guidance:**

Due Process and Protection of Private Property

- The U.S. Constitution created a form of government characterized by:
 - A. Limited powers granted to the federal government, with all unenumerated powers being reserved to the respective states.
 - B. Separation of those limited powers into legislative, judicial, and executive branches.
 - C. Creation of a process where the branches act to check and balance the power of the other branches.
 - D. Guarantee rights of due process and just compensation when private property is taken for public use.
 - E. Grant of authority to Congress to make rules and regulations governing federal property.

SQSWCD intends to maintain balance within the actions of state government in land use planning within the District.

- **Objective:**

1. Protect private property and interests in private property and promote the continuation of private economic pursuits.
2. Respect private property rights and consider the effects of policies, regulations, and federal and state decisions on these rights.
3. Recognize that the protection and preservation of privately owned land is desirable and necessary in Quay County.
4. Work with the county and communities to reduce the conversion of prime farmland and rangeland to urban and industrial use. Encourage retaining Class I land for agricultural purposes.

4.2-9 RIPARIAN

Simply stated, riparian areas are the transitional zones between aquatic and upland environments. However, this discussion becomes infinitely more complicated as specific details are examined and disciplines are considered. "Functionally, the riparian zone is the area of direct interactions between aquatic and terrestrial environments" (Swanson et al.; 1982).

Other definitions say "Riparian areas are zones bordering lakes, reservoirs, closed playa lakes, potholes, springs and seeps, wet meadows, vernal pools, and ephemeral, intermittent, or perennial streams. They are of prime importance to water quality, water quantity, stream stability, and fisheries and wildlife habitat. Abundant water, forage, and habitat attract a proportionately greater amount of use and conflict than their small area would indicate. They are vital to the livestock grazing industry and many are also well suited for development as high quality agricultural farmland." See map in Appendix

In New Mexico and within this District, channelization has severely limited, and in most cases eliminated the water/land relationship that would normally have allowed the establishment of riparian vegetation along drainage corridors which in turn support healthy wetland systems. Instead there are degraded banks (that result in severe soil erosion and sediment build up in rivers and reservoirs) and the loss of habitat for fisheries, waterfowl and wildlife.

- **Goal:** Maintain, restore, improve, and protect riparian areas so that they are in proper functioning condition for their productivity, biological diversity, and sustainability.
- **Guidance:** "Riparian ecosystems" are defined as an assemblage of plant, animal, and aquatic communities whose presence can be either directly or indirectly attributed to stream induced or related factors (Kauffman and Krueger 1984). Riparian ecosystems support a greater diversity of plants and animals than upland habitats. A significant percentage of all wildlife in the Southwest uses riparian habitat (Thomas et al. 1979, Johnson et al. 1977).
- **Objectives:**
 1. Promote the perpetuation and enhancement of riparian habitat. Encourage a coordinated approach

when establishing riparian and upland management plans and encourage the use of Best Management Practices.

2. Educate the value of balanced watershed management which includes riparian habitat.
3. Promote riparian management based on the *New Mexico Non-Native Phreatophyte/Watershed Management Plan*.

4.2-10 THREATENED, ENDANGERED / SENSITIVE SPECIES

The keystone of good environmental stewardship lies in a healthy resource base. Endangered and threatened species, as well as all plants and all animals, depend on the intricate balance of stable ecological, economic and social functions of the immediate local community.

The Endangered Species Act ("ESA"), [Addendum Tab No. 12 at 37-59, 16 U.S.C. §§1531-1541], protects individual species of plants and animals wherever they occur when it is determined that the continued existence is threatened or endangered. [Addendum Tab No. 12a at 37, 16 U.S.C. §1533]. The ESA provides for listing of species through rule making, 16 U.S.C. §1533(a), and within a year after listing, the identification of critical habitat for the species.

Prior to making a determination whether a species is threatened or endangered, the federal agency is required to take into account "those efforts, if any, being made by any State or foreign nations, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or any other conservation practices, within any area under its jurisdiction; or on the high seas." (16 U.S.C. 1533(b)(1)(A)) This includes a review of the Districts plans, policies and projects. The Districts plan should be reviewed in its entirety as inherent in every policy is the objective to conserve species.

Additionally, it is the policy "of the Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species." (16 U.S.C. 1531(c)(2)) The SQSWCD has holds specific authority to manage water resources within our jurisdiction, and therefore, all actions carried out under the Endangered Species Act must be coordinated with the District to resolve any water resource issues that may arise.

Agencies are to consider the best available objective peer review science when making a decision whether to list, but economic and social impacts are to be considered in the designation of critical habitat. [Addendum Tab No. 12a at 38, 16 U.S.C. §1533(a)(3)(A).]

Critical habitat designations must take local socioeconomic impacts into account. Areas may be excluded as critical habitat based upon economic impacts unless the failure to designate the area as critical habitat would result in extinction of the species. Area designations that preclude the District from carrying out its soil erosion and floodwater management projects will cause economic harm to the community and shall not be included as critical habitat unless essential to the survival of the species.

Once a species is listed, it cannot be "taken," which is broadly defined to mean any direct harm to the species

or harassment, which, in turn, includes disruption in activities or loss of critical habitat.[Addendum Tab No. 12c-ii at 59, 50 C.F.R. §17.3]. If a ‘take’ is likely to occur on private land, the landowner must secure a takings permit under Section 10 of the ESA, and often does so under a habitat conservation plan which also requires compliance with NEPA. [Addendum Tab No. 12c at 59].

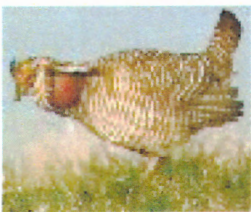
The Natural Heritage New Mexico Program gathers, organizes, and disseminates information on unique, rare, threatened, and endangered species.

The ESA is the basis for several planning mechanisms:

- Recovery plans for listed species that set population and viability goals and define when a species might be eligible for delisting;
- Reintroduction plans, which govern introductions of listed species as part of a recovery effort;
- Habitat conservation plans which allow land uses on private lands to go forward even when a ‘take’ of a listed species may occur; mitigation of adverse effects is usually part of the plan;
- Conservation plans or agreements, often between states and FWS, adopt management actions to avoid listing the species;
- Candidate conservation agreements, under which a landowner commits private land to management for the species, may also have ‘safe harbor’ provisions that assure that the landowner need not take any additional mitigation measures if the species is listed.

The above plans and agreements require some form of NEPA process, which provides an opportunity for public involvement.

The following species have been listed within the jurisdictional boundaries of SQSWCD. The status of any listed species must be known and all additions or removals must be coordinated with the District.



Lesser Prairie Chicken (LEPC) - Quay County - UPDATE - The effective date of the final rule that published on November 25, 2022, at [87 FR 72674](#), and corrected on December 2, 2022, at [87 FR 73971](#). On November 17, 2022 the U.S. Fish and Wildlife Service (Service), announced they recommend the listing of two Distinct Population Segments (DPSs) under the Endangered Species Act of 1973 (Act), as amended, for the lesser prairie-chicken (*Tympanuchus pallidicinctus*), a grassland bird known from south-

eastern Colorado, western Kansas, eastern New Mexico, western Oklahoma, and the Texas Panhandle. The Service determine threatened status for the Northern DPS and **endangered status for the Southern DPS.**

The effects of climate change was not included in the geospatial model but the USFWS anticipates significant influences on future LEPC populations. Climate change in the Southern Great Plains is expected to result in generally warmer and drier weather with more frequent and more intense droughts. These changes are likely to directly impact LEPC reproduction and survival rates and possibly cause large scale shifts in the vegetation community. USFWS greatest concern is the increase in the effects of long-term droughts that place stress on

LEPC populations and can put them at high risk of extirpation depending on the intensity and duration of the time period with below normal levels of precipitation accompanied by above normal temperatures.

Previously, February 2014 the U.S. Fish and Wildlife Service (FWS) and the Western Association of Fish and Wildlife Agencies (WAFWA) signed a range-wide Oil and Gas Industry Candidate Agreement with Assurances for the Lesser Prairie Chicken. The FWS also released an accompanying environmental assessment. The agreement was entered into with the understanding that cooperation between the five states of the lesser prairie chicken - New Mexico, Texas, Oklahoma, Kansas and Colorado - and FWS undertake conservation action for the species.

The LEPC working group in New Mexico, composed of local, State, and Federal officials, along with private and commercial stakeholders, published the Collaborative Conservation Strategies for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico in August 2005.

Since the CCA and CCAA were finalized in 2008, 43 oil and gas companies have enrolled a total of 1,964,163 ac (794,868 ha) in the historical range of the LEPC. In addition, 72 ranchers in New Mexico and the New Mexico Department of Game and Fish have enrolled a total of 2,055,461 ac (831,815 ha). The New Mexico State Land Office has enrolled a total of 406,673 ac (164,575 ha) in the historical range of the LEPC. The CCA and CCAA have treated 79,297 ac (32,090 ha) of mesquite and reclaimed 154 abandoned well pads and associated roads. CEHMM has also removed 7,564 ac (3,061 ha) of dead, standing mesquite, and has another 12,000 ac (5,000 ha) scheduled in the upcoming two years.

Within the Southern DPS - **Renewable Energy** – Projects that would result in “take” of the lesser prairie-chicken can be enrolled in the recently approved Renewable Energy Habitat Conservation Plan (HCP) for the lesser prairie-chicken which covers the majority of the five-state range or project proponents can work with the Service to develop their own HCP. The Service has also been contacted by other interested parties who are considering developing additional programmatic HCPs which, if finalized, would provide additional options in the future. **Grazing** – Landowners or land managers operating within the lesser prairie-chicken range in the Southern DPS who are enrolled in their state specific CCAAs already have regulatory assurances for those covered activities as provided through those agreements. If a landowner is not enrolled in an existing CCAA but is interested in Endangered Species Act coverage, they can work with the Service to develop their own HCP.

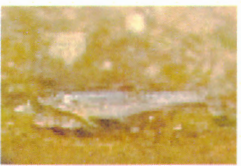
Comment/Expectations: LEPC has been listed as an endangered species by the Service and a Species of Greatest Conservation Need by the NM Game and Fish. According to the Services’s 2023 Recovery Outline for the Northern and Southern DPS of the LEPC Action Plan the Service strives to “work with actions agencies to fully understand potential negative effects of their discretionary federal actions and working collaboratively to implement actions to minimize those effects and SQSWCD believes farming and ranching techniques will be drastically altered, reducing production and income for the families of crop and livestock producers and violates the SQSWCD Land Use Plan by causing an economic effect on rural communities of which they are a part.

Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District’s statutory responsibilities.



Southwestern Willow Flycatcher [E] Quay County Small; usually a little less than 6 inches in length, including tail. The species historical range included Arizona, California, Colorado, New Mexico, Texas, Utah. In 2017 the Service announced a finding on a petition to delist (remove from the List of Threatened and Endangered Species) the southwestern willow flycatcher (*Empidonax traillii extimus*) as an endangered species under the Endangered Species Act of 1973, as amended (Act). This finding also constitutes a 5-year re-

view for the southwestern willow flycatcher. After review of the best available scientific and commercial information, the Service decided delisting the southwestern willow flycatcher is not warranted at that time. to conserve the flycatcher in areas of its breeding range, the subspecies and its habitat remain susceptible to various water and land management and other related threats. **Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District's statutory responsibilities.**



Peppered Chub [E] Quay County - The peppered chub is a small freshwater fish species historically found in New Mexico, Colorado, Kansas, Oklahoma, and Texas, which is now extirpated from all but six percent of its historical range. The Service, States (New Mexico and Texas), and academic partners are conducting monitoring efforts, and plans for captive propagation efforts are underway, but none are finalized yet. The designation of critical

habitat has little effect on private lands, according to the Service. This designation provides protection under section 7 of the Act and requires only Federal agencies to consult with the Service and ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. Because of this, the Service hopes that they can continue their partnerships with local landowners within the historical range of the peppered chub. **Comment/Expectations: SQSWCD must be notified and coordinated with on all decisions that effect private lands within the District boundaries to meet the District's statutory responsibilities.**



Arkansas River Shiner (Notropis girardi) (Native pop.) [T] Quay County - The Arkansas River shiner (ARS) is a small, streamlined minnow with a small, dorsally flattened head, rounded snout, and subterminal mouth. A non-native introduced population of the species found in the Pecos River, New Mexico did not meet the requirements of the US-FWS 1996 Distinct Population Segment (DPS) policy (61 FR 4722). Therefore, the species

is listed as threatened only in the Arkansas River basin, while the Pecos River, NM population does not receive ESA protections. This is due, in part, to the NM population not being essential to the species' recovery and potential conflict with recovery and conservation of the Pecos bluntnose shiner (*Notropis simus pecosensis*).

New Mexico has a total of 235 species Greatest Conservation Need (SGCN). Species considered for inclusion as SGCN had to occur within the state and meet at least one of the following conditions:

- Declining: Species that have experienced substantial long-term declines in habitat or numbers.
- Vulnerable: Species in which some aspect of their life history and ecology makes them disproportionately susceptible to decline within the next 10 years. Factors include, but are not limited to, concentration to small areas during migration or hibernation; low reproductive rates; susceptibility to disease; inability to respond to changing climate conditions, habitat loss, wildfire, and overexploitation for anthropogenic purposes.
- Endemic: Species that are limited to New Mexico.
- Disjunct: Species that have populations geographically isolated from other populations of the same species and are thereby disproportionately susceptible to local decline or extirpation.
- Keystone: Species that are crucial to the integrity and the functioning of their ecosystems. These species may represent more value to conservation of biological diversity than the size of their population or their distribution would suggest.

The following Species of Greatest Conservation Need/Threatened or Endangered are listed by the NM State Game Commission within SQSWCD boundaries: Least Shrew (*Cryptotis para*) [T&SGCN], Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*) [SGCN], Bald Eagle (*Haliaeetus leucocephalus*) [T&SGCN], Peregrine Falcon (*Falco peregrinus*) [T&SGCN], Baird's Sparrow (*Ammodramus bairdi*) [T&SGCN], Least Tern (*Sternula antillarum*) [E&SGCN], Common Ground Dove (*Columbian passerine*) [E&SGCN], Common Black Hawk (*Buteogallus anthracinus*) [T&SGCN], Southwest Willow Flycatcher (*Empidonax traillii extimus*) [E&SGCN], Gray Vireo (*Vireo vicinior*) [T&SGCN], Plain-bellied Water Snake (*Nerodia erythrogaster*) [E&SGCN], Peppered Chub (*Macrhybopsis tetranema*) [T&SGCN], Arkansas River Shiner (Native pop.) (*Notropis girardi*) [E&SGCN], Paper Pondshell (*Utterbackia imbecillis*) [E&SGCN].

- **Goal:** Participate in all decisions and proposed actions, including NEPA procedures for an Environmental Assessment ("EA") or Environmental Impact Statement ("EIS"), which affect the District, regarding sensitive, threatened, or endangered species recovery plans, introduction or reintroductions, habitat conservation plans, conservation agreements or plans, or candidate conservation agreements. The matter of listing or removal of endangered species must be done on the basis of active coordination with the District.

Guidance: The District will work to continuously coordinate with the FWS for the purposes of: 1) being aware of all matters of listing that affect its administrative boundaries and 2) allowing the District to evaluate the impact of all decisions on its water resources, economic impact and conservation measures.

- **Objectives:**

1. Promote coordination between FWS and the District.
2. Advocate management of the entire ecosystem, recognizing the full array of interactions within an ecosystem, including humans, rather than considering single issues, species, or ecosystem services in isolation.
3. Promote critical habitat improvement. However, there must be allowances for traditional uses such as but not limited to grazing, irrigation, and wood cutting. The actions must benefit both the endangered species and the other user's customs and culture.

4. Address the impact of all actions with the statutory requirements of the ESA including the impact to the managed value of History.
5. Oppose the introduction or transplant of threatened and endangered species within the boundaries of SJSWCD, unless the District consents and it is done pursuant to specific terms and conditions that avoid disrupting existing land uses.
6. Coordinate with federal agencies in all decisions and proposed actions, including NEPA procedures for an Environmental Assessment ("EA") or Environmental Impact Statement ("EIS"), which affect the District, regarding sensitive, threatened, or endangered species recovery plans, introduction or reintroductions, habitat conservation plans, conservation agreements or plans, or candidate conservation agreements.
7. Call for proponents of protection, recovery activities, and other threatened and endangered and sensitive species programs finance the activities, including public involvement and compensation to the affected landowners.
8. Expect that federal agencies respect distinctions between special status species (Species of Greatest Conservation Need, etc.) and those listed under the ESA.
9. Support delisting of species once population goals set out in recovery plans are achieved.

4.2.11 PREDATOR CONTROL

- **Goal:** Encourage management of predatory animals to minimize damage to private property and wildlife and protect the local economy and tax base to maximize the viability of the agricultural community.
- **Guidance:** Federal agencies are obligated to coordinate their planning processes with local government land use plans. 43 C.F.R. §1610.3-1(a). The National Environmental Policy Act (NEPA) requires federal agencies to "discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned).

Congress intended NEPA to apply to every action that significantly affects the quality of the human environment and the thresholds of local conditions are best observed and measured by local expertise.

Considering the existing climate conditions in New Mexico, the effects on the population dynamics of fauna and flora are critical to the conditions affecting the community as well as the endangered species.

- **Objective:**
 1. Support control of predators, rodents and insects, which are disease-bearing vectors that are a recognized threat to public health.
 2. Support predator control based on a balance between the best objective science available, economics, and logistics, evaluated on a case-by-case basis using currently recognized methods of predator control that remain as viable options for predator control, until new and better technology offers new options.

3. Government reintroduction and-introduction plans should provide for compensation to livestock operators for actual value of loss, including replacement cost, including direct and incidental expenses relating to the loss, and prompt payment thereof.

PREDATOR POLICY

- SQSWCD shall, to the maximum extent possible, participate in all decision processes associated with management actions relating to all threatened and endangered species, including candidate species.

4.2-12 OUTREACH AND EDUCATION

- **Goal:** It is the goal of SQSWCD is to garner the support, understanding, and backing of our community and partner agencies and promote “Raise a generation of youth that understands the importance of agriculture.”
- **Guidance:** Participate, foster and have a more active role in local, state, and federal relationships and understanding.
- **Objective:**
 1. Continue promoting SQSWCD programs through newsletters, newspaper ads and articles, and informational brochures.
 2. Disseminate and promote partner agencies programs through above listed avenues.
 3. Continue to support Agriculture programs that promotes SQSWCD custom and culture.
 4. Support and promote SQSWCD programs at County Fairs and any other local, state or national activity pertinent to the SQSWCD.

4.2-13 WATERSHED MANAGEMENT

Many of New Mexico’s Watershed are in an unhealthy state. This condition has reached a critical state in many watersheds, including 1) unnaturally high density of woody vegetation in some forest types, in woodlands and grasslands, and in riparian communities, 2) a degradation of biodiversity, including an increase of invasive species and noxious weeds such as salt cedar and thistles, and 3) fragmentation and deterioration of wildlife habitat. Results of these trends include susceptibility to catastrophic wildfire, compromised watersheds and decreased water supply, accelerated erosion, desertification, and other unwanted symptoms of ecological degradation. These unhealthy conditions have been created over time by factors including changes in settlement patterns, disruption by human intervention of natural processes such as fire and flooding, unsustainable use, and natural climatic variations.

Healthy watersheds provide many ecosystem functions including, but not limited to: erosion / sedimentation control, increased biodiversity, soil formation, wildlife habitat, water storage, water filtration, flood control,

food, timber, recreation, nutrient cycling, and carbon storage. These resources are essential to our social, environmental, and economic well-being.

Healthy watersheds are frequently undervalued when making land use decisions. Due to the complexity of natural systems and economic precedents, it is difficult to assign a dollar amount to a particular ecosystem service. However, there is a large body of research and evidence to support the fact that an intact healthy watershed avoids costly restoration and provides long-term economic opportunities and jobs.

- **Goal:** SQSWCD strongly supports the critical need for healthy watersheds that provide a reliable supply of high-quality water and other benefits for New Mexico by implementing long term, collaborative, comprehensive watershed-scale restoration projects that foster ecosystem function and resilience.
- **Guidance: Implement the 2024 Memorandum of Agreement (MOA) between the District and NM State Land Office (SLO).** Also support the following efforts: 1) community-based collaboration with stake holders; 2) integration of Best Management Practices that incorporate peer-reviewed science; 3) expedited implementation of watershed and landscape restoration and enhancement projects at the site-specific and landscape levels; and 5) Management should be directed towards achieving desired future conditions e.g. promoting active range management on suitable lands across all jurisdictional lands.
- **Objective:**
 1. Promote and support increasing partnerships and exchanges between natural resource agencies, local government and private landowners on watershed restoration projects.
 2. Provide technical assistance in the development of plans for ecologically beneficial conservation projects to take place on state trust lands located within the boundaries of the District (“Project Plans”).
 3. Support the maximum area of land possible to be excluded from single-use or restrictive-use designations, so that excluded land is available for active and sound management on public lands.
 4. Conduct restoration activities in a manner that minimizes impacts to native and sensitive plants, animals, and their habitats by using the most current and up-to-date best management practices.
 5. Develop collaborative strategies to promote a dynamic patchwork mosaic of riparian and wetland vegetation and habitat as water availability and community priorities allow.

4.2-14 CLIMATE CYCLES/WEATHER MODIFICATION (aka: Cloud Seeding/Water Enhancement) -

Cyclical variations in the Earth’s climate occur at multiple time scales, from years to decades, centuries, and millennia. Cycles at each scale are caused by a variety of physical mechanisms. Climate over any given period is an expression of all of these nested mechanisms and cycles operating together.

While paleo-ecological evidence clearly demonstrates major past shifts in climate-vegetation across New Mexico’s landscapes, the large magnitude and rapidity of recent and projected change is thought to be un-

precedented during the past years, and probably much longer. Recent chronic warming, along with increasingly unprecedented episodes of extreme hotter drought stress, have already driven substantial changes in New Mexico vegetation over the past twenty years, foreshadowing massive reorganization of vegetation distributions and cover if current warming trends continue as projected (e.g., Jennings and Harris; Triepke et al.,).

Since water-related environmental stresses occur in parallel with water supply shortages for people, such change could lead to increasing conflict between management of declining water availability for human use (e.g., irrigation) versus “wild” water retained for the maintenance of historical ecosystem values and services (e.g., Grant et al., 2013).

However, through collaborative translational approaches (Jackson 1627 2021) and thoughtful anticipatory planning (Bradford et al., 2018), there is also the potential for creative adaptive conservation strategies that increase resilience to water shortage for both humans and our linked environmental systems.

- **Goal:** SQSWCD strongly believes Climate must be considered when developing strategies to protect and enhance the value of resources. Determining whether a strategy should prioritize investments in high vulnerability areas or not depends on the expected success of the investment. For example, a water resource investment in an area with high vulnerability may not persist as long as an investment in a low vulnerability area. On the other hand, an investment in an area with a high vulnerability rating may have much greater benefit to resources than if it were to occur in a low-hazard area.
- **Guidance:** In 2006, the New Mexico Office of the State Engineer convened a group of scientists who produced a report entitled *The Impact of Climate Change on New Mexico's Water Supply and Ability to Manage Water Resources* (Watkins et al., 2006). The report was generated in recognition that the most significant impact of climate on New Mexico was going to be the negative impact on the state's water resources. Watkins et al. (2006).
- **Objectives:**
 1. The District will support its neighboring District's efforts to advance the proper use of weather modification technologies through research, reaching out to higher education institutions in New Mexico to partner with the District on cloud seeding.
 2. The District will support efforts to continue to improve understanding of the targeted cloud and precipitation processes in planned modification.
 3. Impacts associated with climate include prolonged droughts, increased fire frequency and severity including severe habitat alteration caused by fires and increases in invasive species. The District will educate, inform and promote best management practices that help minimize the effects.
 4. Addressing climate through coordination with local, state and federal agencies to insure the District's policies are considered when dealing with the District's resource concerns.
 5. Continue to grow their shade ball program in an effort to mitigate livestock water trough evaporation.

4.2-15 PLAYA LAKES

Playa lakes are one of the most important types of ephemeral or temporary wetlands in the arid and semi-arid Southwest. Despite their ephemeral nature, these critical water resources recharge groundwater supplies for a growing population; provide habitat for migratory birds, waterfowl, and other wildlife; and support a growing wildlife-related recreational industry. In the Southern High Plains region, playas are the principal source of surface water and are important recharge zones for the freshwater Ogallala aquifer, to communities, ranchers, and rural agricultural economies.

Unfortunately, changes in land use, primarily as a result of agriculture and urbanization, have led to widespread losses and deterioration of playa wetlands. Common impairments to playas include sedimentation (considered to be the greatest threat), pits (deep holes excavated in the basin of the playa), and contamination from urban and agricultural runoff, all of which affect the integrity and function of playas.

Changes in land use, primarily as a result of agriculture and urbanization, have led to widespread losses and deterioration of playa wetlands (Haukos and Smith, 1994; Hall et al., 2004). Common impairments to playas include sedimentation (considered to be the greatest threat) and contamination from urban and agricultural runoff, both of which affect playas' integrity and function. Urban expansion has resulted in many playas being filled, leveled, and bisected with roads. Urban playas have often been used to store stormwater accumulation from urban runoff. Common contaminants in urban runoff include heavy metals, hydrocarbons, pesticides, fertilizers, and chemicals associated with automobiles. Because urban playas rarely have adequate vegetative buffers to intercept surface runoff, these pollutants become concentrated in playas, and can contaminate underlying aquifers.

Playa Lakes exist within their own individual watersheds with the playa situated in the lowest point. Because of their distinct setting and are lined with a layer of hydric clay soil, it is critical we consider the effects of land use and management practices within the entire playa watershed to avoid the reduction of hydrologic function.

- **Goal: Active management of playas is needed to maintain and improve their functions, groundwater recharge, and the critical wetland habitat they provide.** Coordinate with area natural resource managers and landowners on the prioritization of playa restoration and conservation activities.
- **Objectives:**
 1. Continue and promote the District's **Playa Restoration Cost Share Program**. The purpose is to restore playa wetlands within the borders of SQSWCD. The activities are expected to provide benefits to wildlife, including migratory waterfowl and provide additional water to the underlying aquifer.
 2. Promote playa condition assessments and identification of threats through a selection criteria that include factors such as present condition, ecological importance, future threat outlook, cost of restoration, likelihood of successful restoration, educational potential and specific use requirements.
 3. Promote and implement restoration practices e.g. establish native vegetation buffers, remove accumulated sediment, fill drainage features, and restore water flow.
 4. Inform the landowners and county workers that water is the primary driver influencing most natural

functions in playas, any future modifications within the catchment area e.g. road maintenance, terrace rebuilds, and ditch clean outs can impact playa health and have to be carefully planned.

5. Promote that playas can be part of a grazing system and that landowners should plan careful utilization rates and monitored so the vegetation height within the buffer can continue to effectively trap sediment. Also promote that playas within cropland can also be grazed as part of an effort to utilize crop residues for forage.
6. Promote interdisciplinary and collaborative scientific studies between geologists, hydrologists, ecologists, biologists, agronomists, and land-conservation scientists. This will likely result in knowledge that best fills the remaining gaps needed to predict recharge rates beneath playas.

A Continuing Process . . .

The District recognizes that this Plan is dynamic and adaptive and will be updated as needed. It will require the cooperation, work and dedication of many District residents and partners. The ongoing planning will include consideration of historic, current and future land uses in SQSWCD. This Land Use Plan shall be the basis for enforcing FLPMA and NFMA consistency requirements for public land management.

Land and natural resources are essential to local industry and residents. It is the policy of the District that the design and development of all federal and state land dispositions and acquisitions, including boundary adjustments or land exchanges, be carried out for the benefit of individual property owners and to the benefit of the citizens within the boundary of SQSWCD.

REFERENCES:

1. Soil and Water Conservation District Act (2009)
2. Revised Statute 2477 of 1866
3. Desert Land Act of 1877
4. Carey Act of 1894
5. National Irrigation Act of 1902
6. The Reclamation Act of 1905
7. Antiquities Act of 1906
8. Stock-Raising Homestead Act of 1916
9. General Exchange Act of 1922
10. Recreation and Public Purposes Act of 1926
11. Fish and Wildlife Coordination Act of 1934
12. Taylor Grazing Act of 1934
13. Soil Conservation and Domestic Allotment Act of 1935
14. Bankhead-Jones Act of 1937
15. Mineral leasing Act for Acquired Lands of 1947
16. Watershed Protection and Flood Prevention Act of 1954
17. Townsite Act of 1958
18. Multiple-Use, Sustained Yield Act of 1960
19. Food and Agriculture Act of 1962
20. Wilderness Act of 1964
21. Land and Water Conservation Act of 1965
22. Water Resources Planning Act of 1965
23. Community Planning and Resource Development-Soil Surveys 1966
24. Noxious Plant Control Act of 1968
25. National Environmental Policy Act of 1969
26. Environmental Quality Improvement Act of 1970

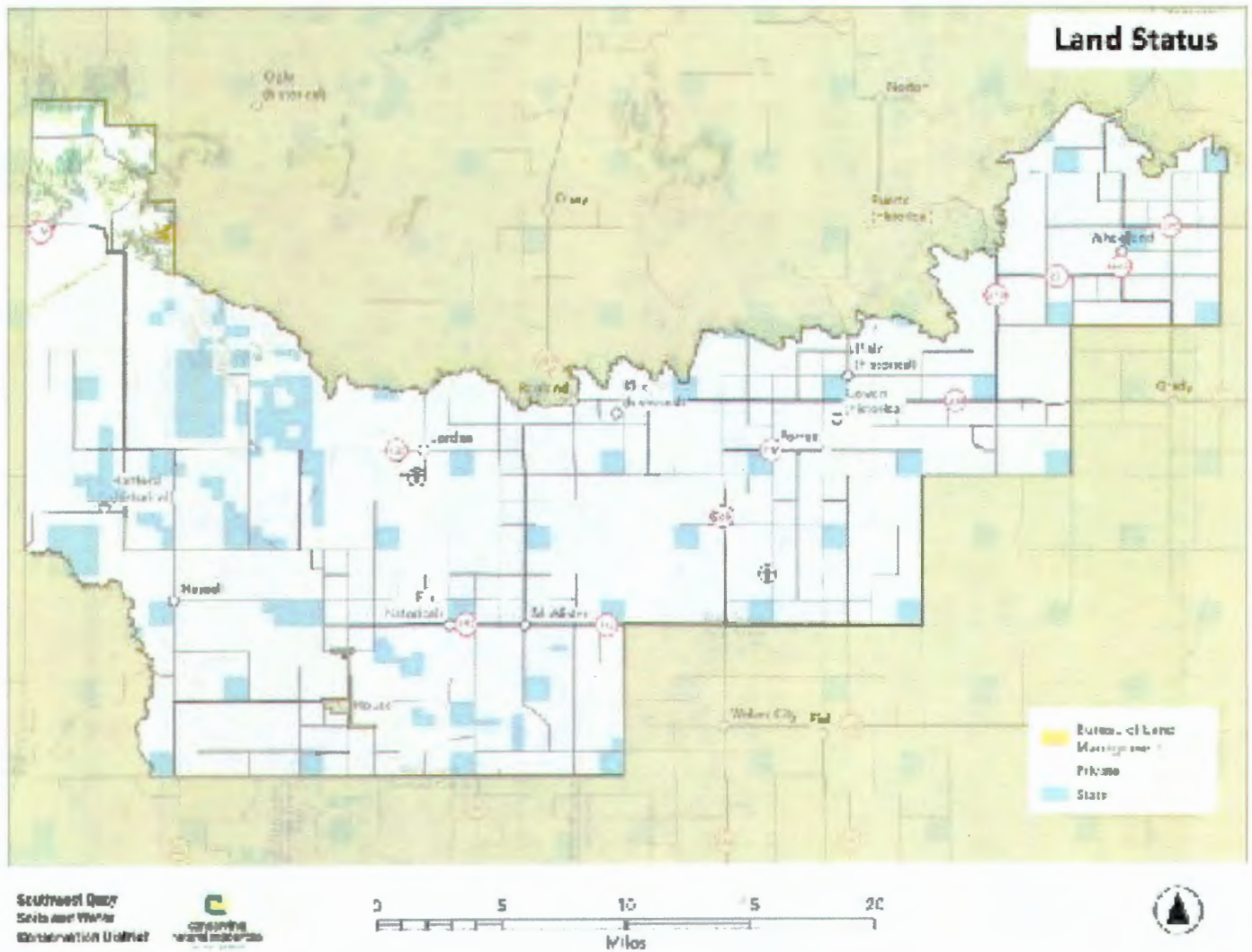
27. Water Bank Act of 1970
28. Mining and Minerals Policy Act of 1970
29. Federal Insecticide, Fungicide, and Rodenticide Act of 1971
30. Rural Development Act of 1972
31. Agriculture and Consumer Protection Act of 1973
32. Endangered Species Act of 1973
33. Disaster Relief Act of 1973
34. Federal Land Policy and Management Act of 1976
35. Payment in Lieu of Taxes Act, 1976
36. Resource Conservation and Recovery Act of 1976
37. Energy Research and Development Administration Act of 1977
38. Food and Agriculture Act of 1977
39. Soil and Water Conservation Act of 1977
40. Clean Water Act of 1977
41. Renewable Resources Extension Act of 1978
42. Water Research and Development Act of 1978
43. Public Rangelands Improvement Act of 1978
44. Weather Control and Precipitation Enhancement rule, pursuant to the New Mexico Weather Control Act.
45. The Impact of Climate Change on New Mexico's Water Supply and Ability to Manage Water Resources (Watkins et al., 2006)

ACRONYM	FULL DESCRIPTION OR NAME
BLM	Bureau of Land Management (Associated with U. S. Department of Interior)
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH	Critical Habitat (Associated with ESA)
CWA	Clean Water Act
DOI	Department of the Interior
EA	Environmental Assessment (Associated with NEPA)
EIS	Environmental Impact Statement (NEPA)
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FDQA	Federal Data Quality Act
FLPMA	Federal Lands Policy and Management Act of 1976
FOIA	Freedom of Information Act (Federal Government)
FONSI	Finding of No Significant Impact
FR	Federal Register
FS	Forest Service (associated with USDA)
IPRA	Inspection of Public Records Act (New Mexico)
LUP	Land Use Planning
MUSYA	Multiple Use Sustained Yield Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act (U.S. Forest Service)
NHPA	National Historic Preservation Act (NHPA)
NRCS	Natural Resources Conservation Service (U. S. Department of Agriculture agency)
OMA	Open Meetings Act
Sec. 10	Section 10 of the ESA
Sec. 7	Section 7 of the ESA
Section 7	Section under the ESA requiring federal agencies to consult with FWS when any action may affect a listed species.
SHPO	State Historic Preservation Officer
SOPA	Schedule of Proposed Actions (Forest Service)
SWCD	Soil & Water Conservation District
TGA	Taylor Grazing Act
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WOTUS	Waters of the US (associated with Clean Water Act)

This map illustrates the Sacramento-San Joaquin River Delta, a complex network of rivers, channels, and islands. Key features include:

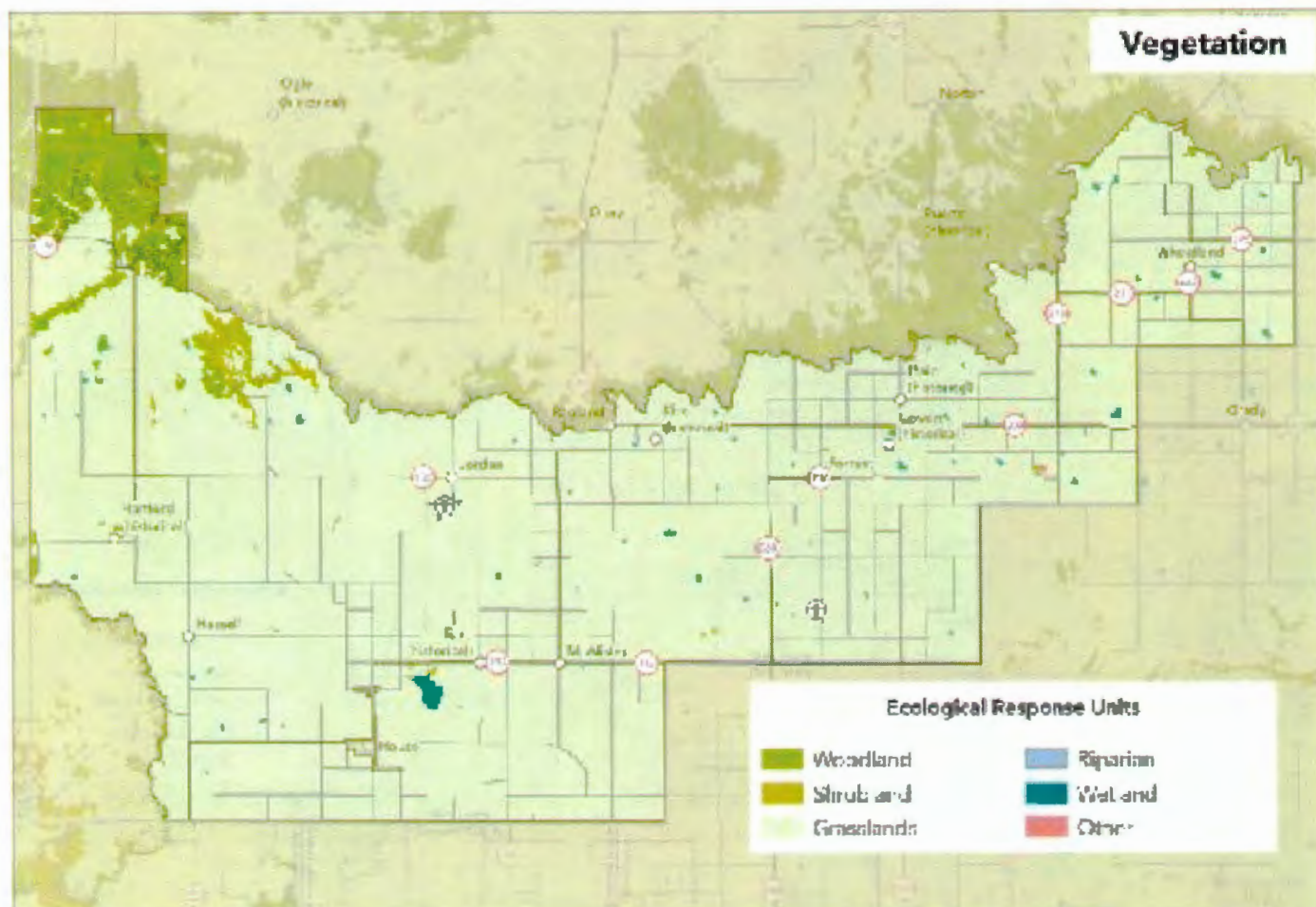
- Rivers and Channels:** Sacramento River, San Joaquin River, Delta Channel, Feather River, Yuba River, and others.
- Islands:** Sutter Island, Yuba Island, Knights Island, and many smaller ones.
- Scale:** A scale bar at the bottom indicates distances from 0 to 10 miles.





Status	Acres	Percentage
BLM	354.9	0.1%
Private	378,954.0	89.3%
State	45,273.4	10.7%
Total	424,582.3	100.0%

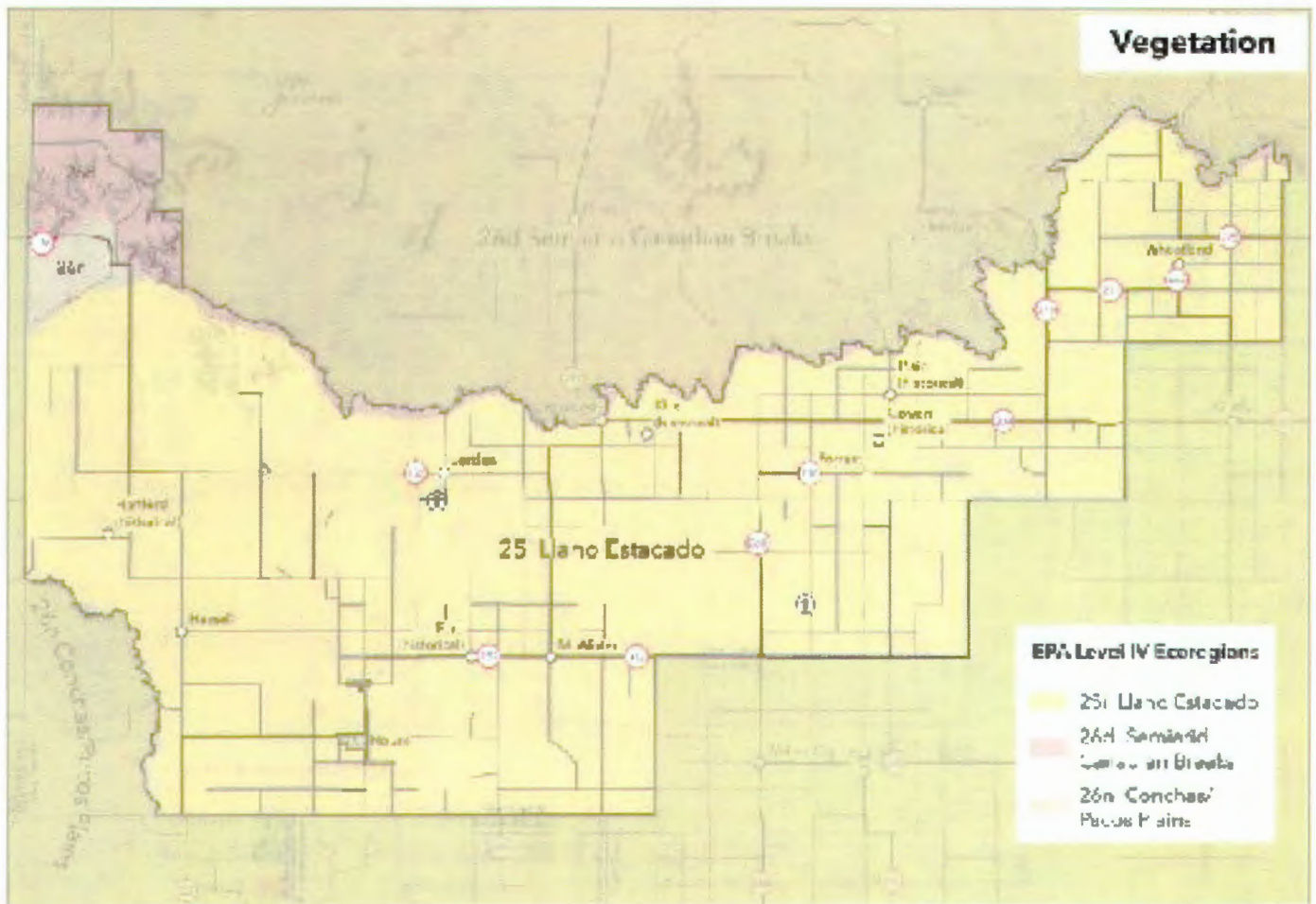
Vegetation



Southwest Quesada
Sealand Water
Conservation District



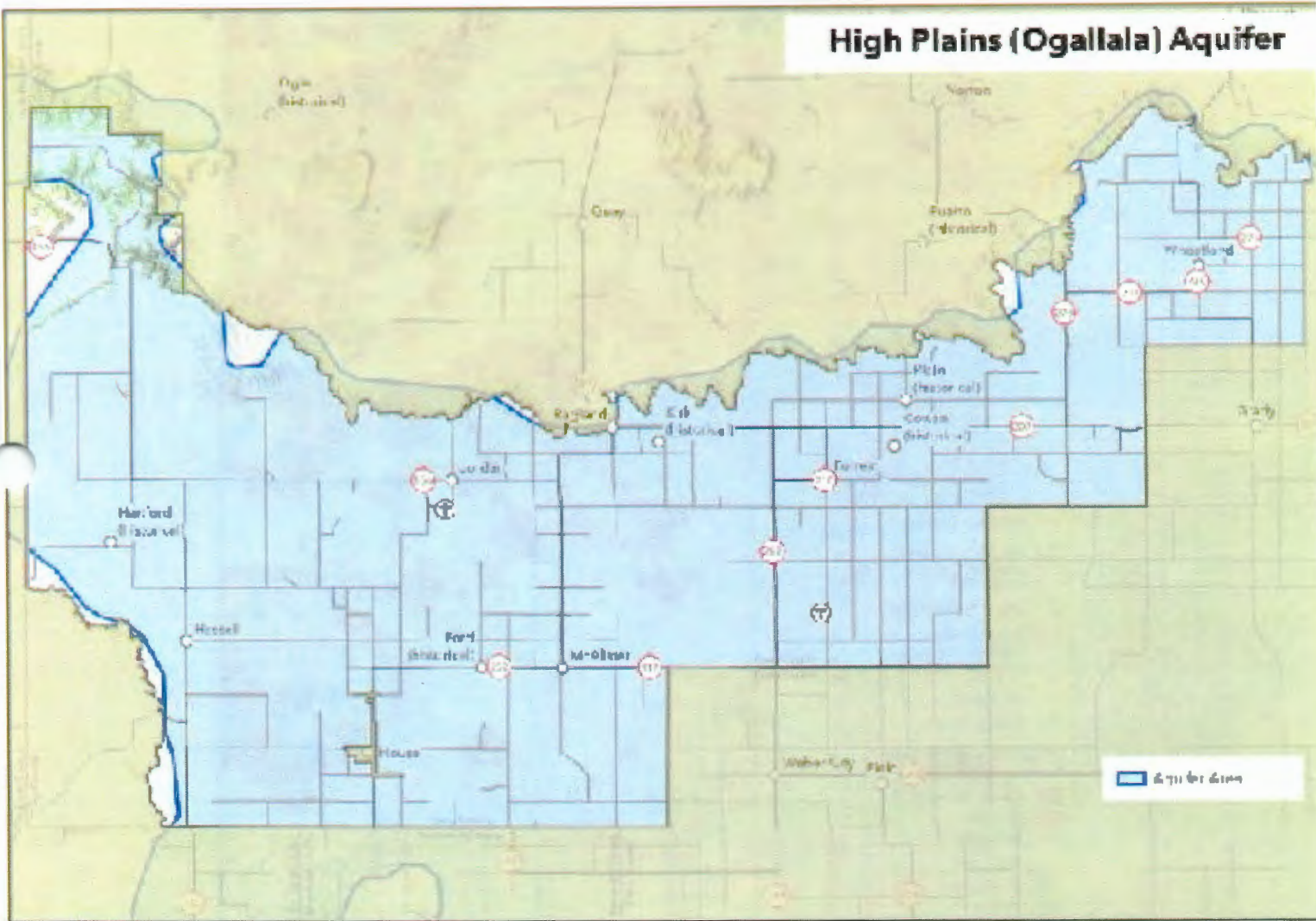
Vegetation



Southwest Quarter
Sealand Water
Conservation Unit

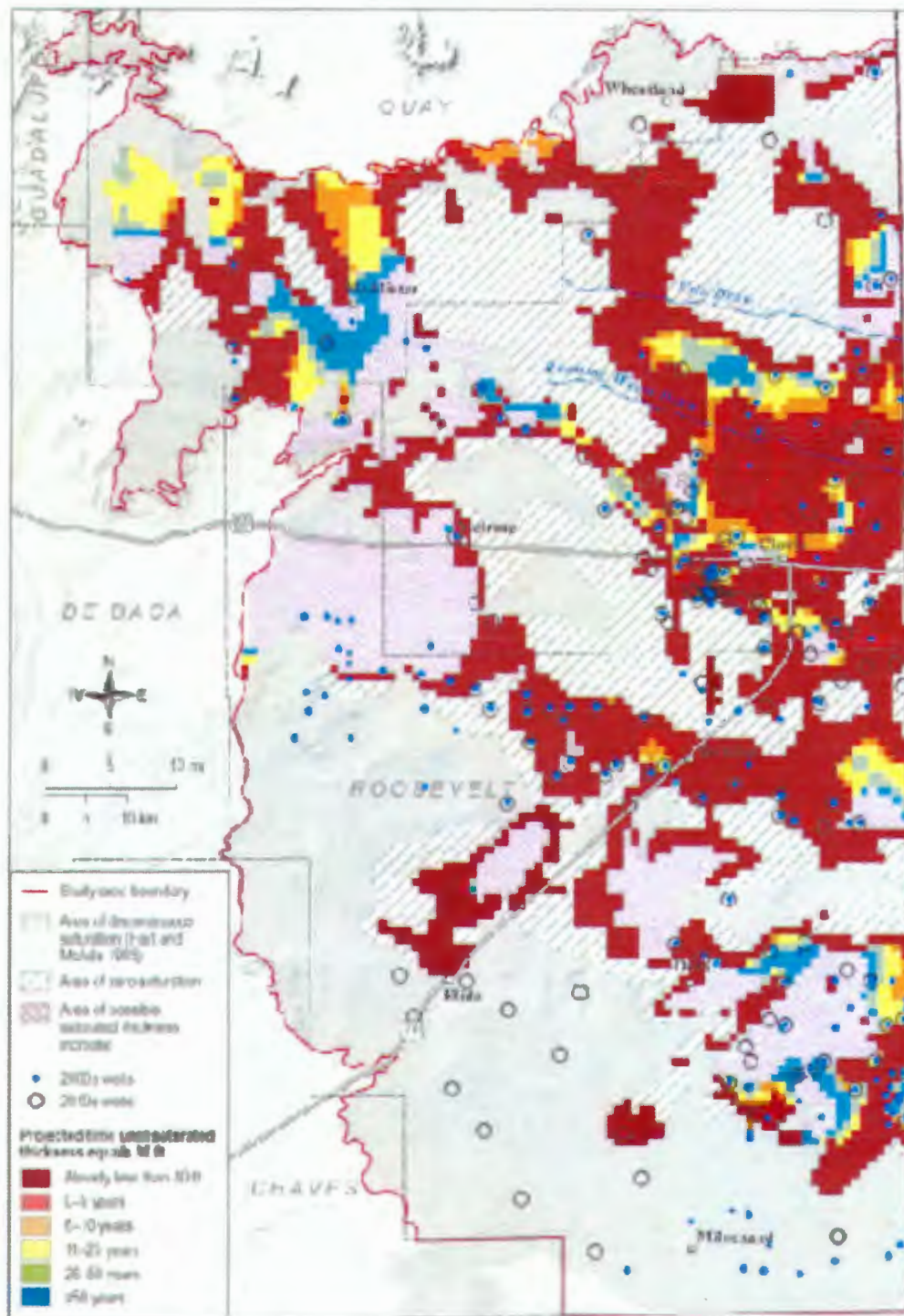


High Plains (Ogallala) Aquifer



Southwest Quay
Soil and Water
Conservation District



NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES:
BULLETIN 162

Projected lifetime of the High Plains aquifer until a threshold saturated thickness of 30 ft is reached, based on water-level declines over the 20-year interval from the 1990s to 2010s decade. This represents the usable lifetime for large-scale irrigated agriculture. "Already less than 30 ft" indicates areas where saturated thickness is already below the threshold.

Summary - New Mexico Bureau of Geology and Mineral Resources (Bulletin 162)

Several thousand water-level measurements spanning over 50 years, from over a thousand wells, were used to create aquifer lifetime projections for the HighPlains aquifer in east-central New Mexico. Lifetime projections were based on water-level changes and decline rates calculated over ten- and twenty-year intervals.

Projected lifetimes were calculated until a 30-ft saturated thickness threshold is reached, and until the aquifer is completely dewatered. The former condition represents the usable life of wells for large-scale irrigated agriculture. The latter condition represents the lifetime of the aquifer for domestic and low-yield municipal wells. It can be considered a "worst-case scenario," as water levels may decline less rapidly if less groundwater is pumped for agricultural uses after the 30-ft threshold is reached. The resulting maps show the projected lifetime graphically, along with progressively enlarging areas of zero saturation.

A confidence factor based on the kriging variance was used to estimate the reliability of the results, and indicates that projected areas of water-level and saturated thickness decline are more reliable than projected areas of increases in these quantities. Comparisons of projected lifetimes from past time periods to present conditions show reasonable agreement, with most differences attributable to spatial and temporal variation in well networks and differences between actual decline rates and those projected into the future from any given time period in the past. The spatial distribution of projected lifetimes matches well with lifetime projections made across the state line in the Texas Panhandle.

The situation in New Mexico appears similar to conditions in the High Plains aquifer across northwest Texas and western Kansas. Much of the region already has insufficient saturated thickness for the operation of large-capacity irrigation wells. Even when considering the lifetime of the entire thickness of the aquifer, projected lifetimes across much of the study area are a few tens of years or less.

[illegible][illegible]

Stephanie Davis Kropf
 Coordinator of Public Lands
 800-827-4797
www.dnr.state.nj.us



SW Quay
Soil and Water Conservation District

LAND USE PLAN

Adopted

April 1, 2024

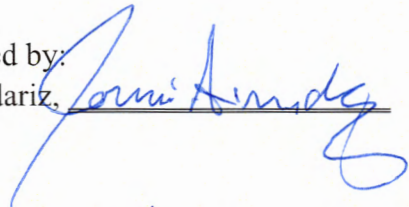
SQWCD Board of Supervisors

Original signed by:

Kole Tatum, 

Chairman

Original signed by:

Jovani Amendariz, 

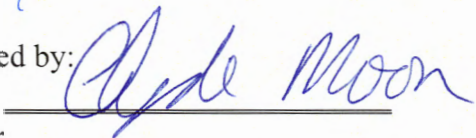
Vice Chair

Original signed by:

Lisa Runayn, 

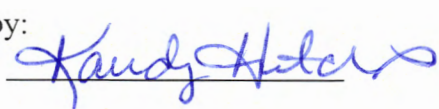
Supervisor

Original signed by:

Clyde Moon, 

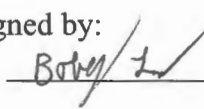
Sec/Treasurer

Original signed by:

Kandy Hutchins, 

Supervisor

Original Signed by:

Bobby Lee, 

Supervisor

Notary Stamp

STATE OF NEW MEXICO

NOTARY PUBLIC

TOMI J. MILLER

Commission No: 1110482

Commission Expires: April 18, 2026

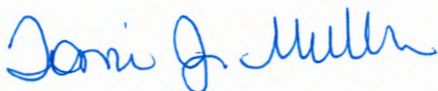


Photo credit

< Malorie McAllister 🔍



Malorie McAllister