RESOLUTION NO. 005-93

Resolution Adopting the Catron County Land Plan.

WHEREAS, the Catron County Commission has appointed a Committee to develop a Catron County Land Plan to describe and protect our culture, customs, and economy, and

WHEREAS, the Committee has conducted many studies, held many public hearings in all the County’s communities, and has used the results of those studies and hearings to draft the Plan, and

WHEREAS, the Plan is before the Commission for final adoption,

NOW THEREFORE BE IT RESOLVED by the Board of Commissioners of Catron County that the Catron County LAND PLAN be, and is, ADOPTED.

PASSED, ADOPTED and APPROVED this 15th day of September, 1992.

Rufus Choate, Chairman

Carl Livingston, Member

Hugh M. McKeen, Jr., Member

ATTEST:

J.W. Blanco, County Clerk

M. Blanco, County Clerk
September 18, 1992

CERTIFICATION

To Whom It May Concern:

I hereby certify that the attached pages constitute Amendment #1 to the Catron County Comprehensive Land Use and Policy Plan.

I am submitting this amendment to the Catron County Clerk for recordation on an emergency basis on verbal authority of the Catron County Board of County Commissioners in lieu of a formal resolution. A formal resolution confirming this action will be adopted at the next county commission meeting.

This emergency action was necessitated by printing deadlines and the urgent need to acquire copies of the land plan for distribution to interested parties.

Danny Fryar
Catron County Manager

The above certification was subscribed and sworn before me by Danny Fryar on September 18, 1992.

James V. Blancq
Notary Public

My commission expires:
12-9-92
The Catron County Comprehensive Land Use & Policy Plan

September, 1992

PRESENTED BY:

The Catron County Land Planning Committee

Chairman: R. C. "Dick" Manning,
County Representative: Danny Fryar
Members: Vic Jenkins, Tom Cox, Elliot McMaster,
         Howard Hutchinson, Bobby McKinley, Jerry McPhaul,
         Doug Baird, Luther Broaddus
Legal Advisors: Jim Catron, Karen Budd
Contractors: Alex Thal, Ron White, Karl Hess

This plan is being submitted to the public for continuing comment and participation in amending and implementation. There have been eight county-wide public meetings to solicit issues and concerns. Additionally, there was a county-wide survey sent to every county resident with a telephone and numerous personal interviews were conducted with randomly selected individuals throughout the County. The policies and implementation strategies contained in this document were developed from the meetings mentioned above. The Catron County Land Use Ordinances contained in Part I, convert the implementation strategies and policies mentioned above into local law. The success of the plan will depend upon continuing comment and participation by the citizens of the county.

The Catron County Land Planning Committee wishes to express their appreciation to the citizens of the county and many people outside the county who contributed many thousands of volunteer hours to make this plan a reality.

This plan has been prepared under the direction of the following Catron County Commissions:

Beginning (90/91):
G.V. "Buddy" Allred, Jr., Chairman
Rufus Choate
Phillip Swapp

Adoption (91/92):
Rufus Choate, Chairman
Hugh B. McKeen
Carl Livingston

The continuity, which has been maintained in the development of the plan during the tenure of two different County Commissions, reflects the unity and commitment which exists among the citizens of Catron County.
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Preface

The Catron County Comprehensive Land Use & Policy Plan

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.

The Declaration of Independence, 1976

Catron County, New Mexico, has arrived at an historic moment when crucial decisions on a people’s destiny must be made. At stake is the future of families and communities whose custom, culture, and livelihood may not survive into the Twenty-First Century. A way of life that is rooted deeply in the ranges and valleys of the Mogollon, Tularosa, Mangas, and Datil mountains and of the rolling grasslands of the north Plains and the Plains of San Agustin is endangered. It is endangered because the county is under siege by forces that deny its democratic birthright. One hundred and twenty-five years of continuous settlement have forged and tempered among the people of Catron County a spirit of independence, self-reliance, and community solidarity. That spirit, which has weathered the rigors of frontier hardship, the deprivation of economic depression, and the harshness of the southwestern environment, must now overcome even greater adversity.

Federal and state agents threaten the life, liberty, and happiness of the people of Catron County. They present a clear and present danger to the land and livelihood of every man, woman, and child. A state of emergency prevails that calls for devotion and sacrifice. It asks that the citizens of Catron County unite themselves and, through their elected government, assert their fundamental rights to human dignity and self-government. Most of all, it seeks from an honorable past the strength to mold and environment of freedom and opportunity for Catron County’s present and future generations.

History is the road over which mankind has reached its present position of civilization. Whether man or his government learns from history or repeats it depends on the wisdom, morals, and integrity of the present population, political leaders and legal system. This document is one more mile in the historical travels of Catron County’s people.
The Catron County Comprehensive Land Use and Policy Plan (comprehensive plan) consists of three parts:

- Part I: Catron County Land Use Ordinances
- Part II: Declaration of Our Culture, Custom, & Economy
- Part III: Implementation

The comprehensive plan is an open-ended road map to survival for Catron County, an adaptive, strategy that tells citizens not where they should go, but how they might best arrive at their desired destination. As such, the comprehensive plan is a strategy that can grow and change with each consecutive generation. It sets forth in unwavering language the spirit and determination of a proud people to recapture their heritage and to be masters of their own destinies. Its authority lies in the will of the people as spoken through the representative voices of the elected commissioners of Catron County. It is the culmination of an effort that began with passage of the Catron County Interim Land use Policy Plan (interim plan), a plan that confidently and unanimously declared:

We, the people of Catron County, State of New Mexico, accept, support and sustain the Constitutions of the United States and of the State of New Mexico. We have demanded through our elected legislature and governor that the federal government comply with the Constitution of the United States…which limits the authority of the federal government to specific lands, and we hereby reaffirm our demand that all lands in Catron County not so specifically designated be relinquished to the citizens thereof.

Further, we affirm the fundamental rights of mankind as enumerated in the Declaration of Independence and acknowledge the limited nature of government as intended by the nation’s founding fathers. Based on these cherished traditions, we declare that all natural resource decisions affecting Catron County shall be guided by the principles of protecting private property rights, protecting local custom and culture, maintaining traditional economic structures through self-determination, and opening new economic opportunities through reliance on free markets. Resource decisions made in the manner will enhance environmental quality.

To meet the intent and spirit of the interim plan, the people of Catron County have chosen a singular and unique approach to land use planning. As will become evident in subsequent chapters, the land use issues of greatest concern are those pertaining to federal and state lands through land use restrictions and regulations placed on private lands and resources by federal and state governments. Consequently, this document is about empowerment. It is about the legal authority of county governments and the legal rights of local citizens as regards the use of federal and state lands. It is also about the constitutional sanctity of private property, and the preservation and protection of right of
Property owners to do with their properties and resources as their consciences dictate.

This document has nothing to do with zoning ordinances or public funds promoting economic development. Its concern is with creating an environment of opportunity for all citizens; an environment where individual initiative and entrepreneurship can be encouraged, applied, and released for the public benefit. This document recognizes, reaffirms, defines, and pledges to defend those prior rights, equitable estates, private property rights, and protectable interests held by individuals in federal and state lands. Under the rights affirmed by existing laws, the county has a partnership in the management of federal and state lands insuring the maintenance of its tax base and protecting the local economic stability. To do this, barriers, particularly the land use barriers arbitrarily imposed by federal and state governments, must be removed in favor of free choice and individual accountability. The comprehensive plan rejects the compulsory, government-imposed land use restrictions illegally imposed without county government input. These restrictions range from environmental zoning ordinances to federally mandated land use targets and prescriptions. Instead, the comprehensive plan relies on an informed and responsible county government working with informed and responsible local citizens; each working cooperatively within their communities and the context of a free market, arriving, after consultation and cooperation with the appropriate federal or state agency, at land uses that are ecologically sound and socially beneficial.

The comprehensive plan does not directly address the wide range of issues pertaining to infrastructure vital to social well-being. It does, however, address the most basic public good of all: freedom, the bundle of rights and liberties that bestows on every citizen the title of free man and free woman. It is the firm belief of the citizens of Catron County that the first objective of government is to secure these rights and liberties, and to that purpose, this plan is dedicated.

Parts II and III of the comprehensive plan are divided into four chapters:

**Part II — Declaration of Our Culture, Custom, & Economy**

- **Chapter One** gives the legal framework for the Catron County comprehensive plan. This chapter discusses the authority for the County to develop a land use plan under both State and Federal law and the regulatory authority of the County regarding both federal lands and federal actions over private lands. This chapter also details the federal governments’ responsibility to consider the impacts of federal policies and decisions on Catron County’s custom, culture, and economic stability.

- **Chapter Two** is a precise statement and definition of custom and culture in Catron County. It lays forth principles and ideas based on the custom and culture of Catron County, that give meaning, spirit, and substance for the comprehensive plan. As such, it provides a political foundation for county and citizen sovereignty in matters of federal state and private land
use. Most importantly, it is the catalyst for the renewal and resurgence of local participatory democracy.

- **Chapter Three** is a portrait of the economic conditions, trends, and impacts that define and effect the social and economic stability of Catron County. It examines the interdependency of private and public lands, reveals the interactions between private and public sectors and assesses the impacts on the community and the economy stemming from current and projected federal and state land and resource use policies. It provides an overview of the impacts on the major economic sectors as well as impacts on the social, culture, and property rights in Catron County. It outlines the basic economic requirements necessary to stabilize the local economy; reduces or eliminates future negative impacts to Catron County’s economy, custom, and culture; and protects private property rights.

**Part III — Implementation of Catron County’s Comprehensive Plan**

- **Chapter One** is the implementation portion of the comprehensive plan. The mere fact that the citizens of the county have defined their custom, culture, and economic stability does not mean that those things will be protected. Unless this plan is implemented as described in this chapter, the comprehensive plan will not be worth the paper upon which it is written.

The issues that face the people of Catron County are so profound and fundamental that they cannot be resolved by traditional planning. They relate to questions that are basic to the meaning of democracy and liberty in a free society. They are the predictable but costly outcome of an aggressive federal policy to standardize and control land uses on private and federal lands. They are the abandoning of the basic American belief in the ability of her citizens, working through their communities, to democratically resolve local social, economic, political, and environmental issues.

The comprehensive plan also contains a glossary of terms. Unless otherwise specified, the definitions in the glossary shall apply throughout the comprehensive plan. Because this plan is based on Catron County’s history, custom, and culture, the words used in this plan shall have the same meaning as they did when they were first used.

The comprehensive plan reaffirms the belief that individuals and communities are the proper focal point for local land use planning. To reaffirm that belief, the comprehensive plan relies on the principals of voluntarism, free association, and social cooperation to achieve the land use goals of Catron County. It looks to the environmental efficacy of private property rights, the ecological power of free markets, the stewardship benefits of personal and community accountability and the diversity of grassroots democracy to create and sustain land uses beneficial to people and nature. It advances the proposition
That when people face the proper incentives, when accountability is appropriately assigned and when human action is guided by markets instead of social engineers, society can then expect to achieve its desired ecological goals and attain environmental excellence.

Simplicity and workability, then, are the commanding virtues of the comprehensive plan. It is simple because it makes no assumptions about what people should do or how they should go about it. It is workable because it is democratic. And it relies on the power of people on the land rather than institutions to attain solutions to land use problems. The comprehensive plan simply sets the pace and direction for the people of Catron County to assume responsibility for the direction of their lives and the quality of their environment. It is by design and intent a profoundly ecological plan; a plan that aspires to the full integration of people in nature; a plan that uses participatory democracy as the organizing principle in the shared affairs of people and nature; and a plan that envisions the fundamental unit of political and ecological organization to be the land community where people and nature are in intimate, mutually beneficial and continuous contact.

Achieving the goals of the comprehensive plan is a matter of social commitment and individual persistence. Some of the elements of the plan can be acted on immediately, bringing relief where most needed to beleaguered people and besieged lands. However, the full realization of the comprehensive plan will take time and patience. Changing how and by whom the lands and resources of Catron County are controlled and stewarded means fundamental enforcement of national environmental policy. Federal and state governments must be made to acknowledge rights of the people and local governments under existing laws and regulations.

Finally, the comprehensive plan also addresses the issue of rights existing prior to the creation of the national Forest Reserves and the Taylor Grazing Act as well as subsequent existing rights in and to federal and state lands. The recognition of those rights by local, Federal, and State agencies will ensure that Catron County’s custom, culture, and economic stability remain viable for the next generation who would work the lands known as Catron County.

Water: Riparian Areas & Wetlands

Catron County water policies and plans are detailed in the Catron County Water Plan (under separate cover). The Comprehensive Land Use Plan deals first and foremost with water-related land issues, specifically riparian and wetland issues associated with federal and state lands or riparian and wetland issues arising from enforcement of federal wetland, clean water, and wild and scenic river acts. In addition, the Comprehensive Land Use Plan considers water to the extent that it is a property right and is, therefore, subject to constitutional protection.

However, common sense dictates that land and water are inseparable. For this reason, the Comprehensive Land Use Plan and the Water Plan should be considered integral parts of
A single whole. Indeed, the policies and plans stated here assume the existence of the Water Plan and rely on its provisions to complement the goals and objectives of the Comprehensive Land use Plan. Finally, it should be apparent that the traditional land uses discussed in this report are neither conceivable nor understandable in the absence of water. In fact, of all the outcomes predicted from the strategies and action plans of land use planning, none is more important than improved watershed conditions and the supply of high quality water over extended periods to the citizens of Catron County. Land forms the body of custom and culture, but water is the life force that courses through the body’s veins and animates life.

THE REMAINDER OF THIS PAGE IS LEFT BLANK INTENTIONALLY
Catron County Commission Policy Statement for Resource Conditions and Management

Watershed and forest health are the most important natural resource needs for all lands within Catron County. Woody growth encroachment and increased density are negatively affecting the biodiversity, hydrology, and productivity of the land. The increasing risk of wildfire, loss of natural resources and the effects on socioeconomic stability are of great concern to the citizens of Catron County. Therefore, the Catron County Commission’s position is that the highest priority be placed on the control and thinning of woody growth and hazardous fuels in all ecological zones.

As all zones within watersheds are experiencing an overabundance of woody growth, treatments within entire watersheds and throughout all vegetation zones are necessary to facilitate change in important ecological functions that will result in restoration of forest and watershed health. This is not to say a single prescription or treatment is needed, but that site specific prescriptions or plans for each watershed, involving all landowners, need to be designed and implemented. The direct benefits of this initiative include:

- reduction of wildfire threat and damage,
- improvement of proper functioning hydrological cycles,
- greater flora and fauna diversity,
- increased sustainable and renewable socioeconomic opportunities (e.g. supply to local sawmills, biomass for energy production and other wood-based industry) for improving forest health, and
- Multi-interest cooperation and planning is also necessary for the success of this initiative, as the effects are broad-reaching and interconnected.

It is the Catron County Commission’s position that common objectives and cooperation with all land and resource managers in the improvement of natural resources will benefit County citizens and visitors alike. Common goals and objectives should lead to the greatest benefit of all parties and increased working cooperation.

County policy – Government Lands

Introduction

This plan encompasses the entire area of Catron County, approximately 6,900 square miles. Of that acreage, approximately 3.3 million acres are lands administered by federal and state agencies. On 24% of this area, which is private propriety, there are about 3,543 people with the majority of them depending upon the natural resources, their availability and the adaptive management of these resources. In this area, there lies part of an Indian reservation, a wilderness area, a primitive area, three mountain ranges, plains, and semi-aired dessert. Many Federal, State, County Government, and private citizens manage these lands. Historically, residents of the sparsely populated county have had to manage the resources properly or they were out. Overall, they feel they have more invested in the resources than anyone else has. They have spent
their lives here and seen newcomers come and go. Therefore, it is extremely important that consideration be given to coordination and consistency with current Catron County plans.

Provisions in the Federal Land Policy and the Management Act (FLPMA), NFMA, RPA Council on Environmental Quality, and the other management and planning regulations provide for Catron County to participate and have a strong voice in the planning and decision making processes associated with managing the Catron County public lands and any activities in adjoining county’s activities that could have an effect on the county and its residents.

**RESOURCE CONDITION**

Watershed and forest health are the most important natural resource needs for all lands within Catron County. Woody growth encroachment and increased density are negatively affecting the biodiversity, hydrology, and productivity of the land. The increasing risk of wildfire, loss of natural resources and the effects on socioeconomic stability are of great concern to the citizens of Catron County. Therefore, the Catron County Commission’s position is that the highest priority be placed on the control and thinning of woody growth and hazardous fuels in all ecological zones.

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**PURPOSE**

Laws and regulations dictate public land management. Various laws and regulation requires public land managers to involve local government in the planning and decision making process. Further, in the case of federal lands, it requires federal land managers to insure that land use
plans, and management decisions, are consistent with local government’s approved plans, ordinances, and policy to the fullest extent possible.

The Public Lands portion of the Catron County’s General Plan reflects Catron County’s policy position on the management and use of public lands that affect the County’s interest.

This plan clearly and concisely states County policies, issues, and objectives. This planning document will be used by the County and federal and state public land management agencies during public land planning efforts and decision-making processes.

This plan was developed to protect the interest of the County, its residents, the State of New Mexico, and in support of our national interests. It is designed to ensure that the spirit and intent of the laws, regulations, and policies that govern management and use of public lands are followed. It provides the basis on which federal and state consistency analysis is to be made in coordination with the County.

Should any part of this policy or implementation plan be found inconsistent with such statute or regulation, or found by a court with competent jurisdiction to be void, unenforceable, or invalid, the remaining provision or parts shall nevertheless remain in full force and effect.

For the purpose of this policy and the implementation plans all reference to analysis means NEPA analysis, unless otherwise specified.

**OBJECTIVES**

The following objectives will guide the development of implementation plans developed under this section and guide for public land managers in consistency review, planning, and management of public lands.

The County’s objectives are:

1. To support the wise use, conservation, and protection of public lands and its resources including well-planned management prescriptions. It acknowledges the need, on occasion, to place strict requirements on the management of some resources in order to provide the needed protection.

2. To insure that the management is accomplished with the full participation of the County and is supported by tested and true scientific data. This will be accomplished in a way that fully analyses the impacts of the economy of the Catron County tax base, culture, heritage, and life styles, and rights of the area residents.

3. That when a negative impact of a proposed action is unavoidable, the impacts on the County and/or its residents must be mitigated or compensated for. If actions result in a taking, all applicable laws must be applied.
4. To insure that public access and right-of-way for utilities and transportation of product must be maintained. This access must be provided for in the future when need is demonstrated.

5. To insure that public lands are managed for multiple use and sustained yield and to prevent waste of natural resources. Further, these lands should be managed to prevent the loss of resources and private property from catastrophic events and to protect the safety and health of the public.

6. In support of our national energy needs and considering the nation’s increasing dependency on foreign oil, all public lands must remain open to the greatest extent possible for the exploration and production of energy and other energy related products.

7. All plans and management decisions must insure that special designations do not influence the use of resources on lands outside of those listed in the designation. The County opposes the use of a buffer zone management philosophy that dictates land use practices and influences decisions beyond the scope and boundaries of the designations.

8. To support agriculture on private and public lands as part of our custom, culture, heritage, and as an important segment of our local economy, as well as providing for a secure national food supply.

9. To provide policy, plans, and other documents for other governmental agencies to use to insure that their resource management and planning is consistent with that of Catron County.

10. Restrictions placed on any resource must be based on analysis of trends and only imposed after a complete analysis.

11. Lands designated open for various specified uses should be available for such use on a timely basis. Proposed uses of such land must be promptly processed. If such uses are not covered in a resource management plan, then these uses will be analyzed in a separate document or by amendment to the RMP. Extended delays or no action will not be used as a method to accomplish management goals. The Data Quality act will be adhered to.

To accomplish the above objectives, the County requires that each Public Land Management agency must:

1. File a written report detailing how consistency with the County’s Policies, resolutions, and ordinances were analyzed with respect to their proposed action or plan. The report must identify where inconsistencies exist, why consistency is not possible, and any proposed way to correct the inconsistencies.

2. Provide a detailed economic analysis of the impacts of their action or proposed action on the County tax base and area economy. Where more than one action is proposed the report must analyze cumulative impacts.
3. Provide a certification that applicable data used in development of a proposal or plan has met the requirements of the Environmental Quality Data Executive Order.

4. Notify the County of any proposed action that will affect the County’s culture and heritage values.

5. Provide an opportunity for the County to have meaningful participation in the development, analysis, and monitoring of any studies conducted on resources associated with area public lands.

6. Compensate any individual or entity that is physically or financially harmed or loses property rights as a result of an action taken by that agency. This includes negative impacts on state and local tax bases.

7. Analyze that County’s ability to provide emergency services, law enforcement, water, and waste management, search and rescue, and other essential services needed to support the proposed action.

8. Analyze the impacts of proposed actions on traditional uses such as recreation, grazing, energy development, wildlife, etc.

9. When provided for by law or regulation, the County is to be offered cooperator Status on any proposed actions within the NEPA process. The County will participate in natural resource management actions, affecting resources of the area, and require that they be notified of such actions.

10. Analyze each proposal to prevent piece-meal analysis; the agency must analyze the full impacts of the proposal, present, and future. Including, but not limited to, buffer zones, the need to protect prey species, views capes, etc.

11. Insure that guidelines, protocols, and other policies used to direct any activity on public lands do not contain restriction or protection not provided for by law or regulation. Any such action must be developed and implemented with local government and public participation.

12. Keep the County fully informed of management action proposed or to be implemented on public land and allow the County adequate time to develop the County’s position of such action should it not be clearly defined in the County’s Resource Management Plans or subsequent implementation plan.

13. When an agency is seeking consultation with the County, verbal or otherwise, it must state in writing that the communication will be considered formal or require consultation at the onset of the discussion in order to be considered Consultation. This communication will be done in a timely manner.
OVER ALL ADVISORY COMMITTEE

The Over All Advisory Committee is an advisory committee to the County Commission on public land issues. Under the direction of the County Commission, it works as an interface with federal and state agencies in fashioning management decisions and policies affecting public lands; and participates in the development, coordination, and implementation of the planning objectives to ensure that the provisions of the Catron County’s plans for natural resource management on Public Lands are followed. They will:

1. Insure that all relevant provisions of this plan are followed by federal and state agencies in management of public lands.

2. Improve dialogue and interaction between County residents and agency officials. Relationships will be strengthened and participants will gain a better understanding of County interests and agency operations as communication improves.

3. They will receive input from residents who are interested in, and directly impacted by public land use decisions. The Over All Advisory Committee will utilize the expertise of citizens by slowing input at public land meetings.

4. Act as a public land issues clearing house. This information will be made available to the public for review and comment. The County Commissioners, when developing official County positions on issues, may consider the recommendations for the Over All Advisory Committee.

5. Insure that guidelines, protocols, and other policies used to direct any activity on public lands do not contain restriction or protection not provided for by law or regulations.

6. Keep the County fully informed of management actions that are proposed or to be implemented on public lands. Than allow the County adequate time to develop the County’s Natural Resources Plans or subsequent Implementation Plans.

POLICY STATEMENTS

Introduction

The following policy statements were developed to communicate the County’s position of various Public Land Management issues. These statements express the County’s concerns on the issues and provides direction to Public Land Management agencies on how these concerns should be addressed.

Wilderness Designations

It is the County’s position that:
The only legal designations of Wilderness Study Areas (WSA) are those designated under section 603 of the Federal Land Policy and Management Act (FLPMA) and the opportunity to create additional wilderness ended in 1991, except as authorized by Congress. Some or all of the WSA designations pending before Congress, are legally and/or technically flawed and will pursue that position when the WSAs go before Congress for approval.

That the 1999 Wilderness Study Area Planning Project and the Wilderness Inventory and Study Procedures H6310-1 were legally and technically flawed.

Any new wilderness designation must be provided for by Congress and created in cooperation with the County and the State.

That all WSAs pending before Congress, which were not recommended for wilderness designation by the Secretary of Interior; be released and managed under multiple use.

Any new wilderness designations in Catron County will be a collaborative process by federal, state, and county officials.

Additionally, the County believes that wilderness designation is not an appropriate, effective, efficient, economic, or wise use of land. These lands can be adequately protected through mitigation, minimizing negative impacts, and proper reclamation.

The creation of wilderness limits access for the elderly and the physically impaired. All wilderness management plans must provide for access for these individuals to the fullest extent possible.

Wilderness management must provide for continued and reasonable access for holders of property rights within the area and provide for full use and enjoyment of these rights.

Wilderness Study Areas released by Congress must be managed based on the principles of multiple use and sustained yield. The RMP must be amended, in a timely manner, to reflect the change in status.

**Special Designations**

It is the County’s position that:

Special designations, such as wilderness, Areas of Critical Environmental Concern (ACEC), wild and scenic rivers, critical habitat, semi-primitive, and non-motorized travel, etc., result in single purpose or non-use and are detrimental to the area economy, life styles, culture, and heritage.

Needed protections can be provided by well planned and managed development.

No special designations should be proposed until it is determined and substantiated by verified scientific data, that there is a need for the designation, that protections cannot be
provided by other methods, and the area in question in truly unique when compared to other area lands.

Designations must be made in accordance with the spirit and direction of the acts and regulations that created them.

Designations that are not properly planned or managed are inconsistent with the mandates that public lands be managed for multiple use and sustained yield.

**Introduced, Threatened, Endangered, and Sensitive Species, Recovery Plans, Experimental Populations, and Related Guidelines, and Protocols**

It is the County’s position that:

These designations or reintroductions often grow beyond boundaries and scope and result in detrimental effects on the area economy, life styles, culture, and heritage.

No such designations or reintroductions should be made until it is determined and substantiated by verified scientific data that there is a need for such action, that protections cannot be provided by other methods and the area in question is truly unique when compared to other area lands.

Designation or reintroduction plans, guidelines, and protocols must not be developed or implemented without the full involvement of the County and full public disclosure.

Any analysis of such proposed designations or reintroductions must be inclusive and analyze all needed actions associated with the proposal to prevent growth beyond the scope and boundaries that were analyzed in the proposal.

Recovery plans must provide for indicators to track the effectiveness of the plan and identify at what point recovery is accomplished.

**Public Access, RS-2477 Roads**

It is the County’s position that:

The access across and to public lands is critical to the use, management, and development of those lands and adjoining private lands.

No roads, trails, right-of-way, easements, or other traditional access for the transportation of people, products, recreation, energy, or livestock may be closed, abandoned, withdrawn, or have a change of use without full public disclosure and analysis.

Future access must be planned and analyzed to determine its disposition at the completion of its intended life. This is to insure needed access is maintained or that such access is removed and resulting disturbances are reclaimed.
Roads covered by RS-2477 should remain open and the County will take any action needed to protect these rights. This includes identification, inventory, and participation in any legal process to protect them.

Access to all water related facilities such as dams, reservoirs, delivery systems, monitoring facilities, livestock water, and handling facilities, etc., must be maintained. This access must be economically feasible with respect to the method and timing of such access. Unreasonable restrictions may result in the loss of use of such facilities and property rights.

**Land Exchanges, Acquisitions, and Sales**

It is the County’s position that:

There shall be no net loss of the private land base and that the federal and state government holds a sufficient amount of land to protect public interest. No “net loss” should be measured, in both acreage and fair value, without approval of the County Commission.

A private property owner has a right to dispose of or exchange his property as he/she sees fit within applicable law.

A private property owner should be protected from federal, state, and county encroachment and/or coerced acquisition.

The County will be compensated for any net loss of private lands with public lands of equal value and compensated for any loss of tax base resulting from these exchanges by the appropriate acquiring agency.

**Recreation and Tourism**

It is the County’s position that:

The area has outstanding potential for recreation and tourism.

Resource development, recreation, and tourism are compatible through proper planning and management.

Potential developments should include family oriented activities and developments that are accessible to the general public, not limited to special interest groups.

It supports cultivating recreational facility development and maintenance partnerships with other entities, agencies, and general special interest groups.

**Water Resource**

It is the County’s position that:
Proper management of public land watershed, which supplies the majority of the agricultural, domestic, and industrial water use in this water-short area, is critical.

An adequate supply of clean water is essential to the health of the County’s residents and to the continued growth of the County’s economy. Every aspect of the County’s economy depends on a dependable and clean supply of water.

Agencies must analyze the affect of their action on water quality, watershed yields, and timing of those yields. Any action, lack of action, or permitted use that results in a significant or long-term decrease in water quality or quantity will be opposed.

It is important to protect water from significant long-term decreases in quality or quantity.

Any agency action must analyze the impacts of facilities such as dams, reservoirs, delivery systems, monitoring facilities, etc., located on or downstream from land covered by the proposal.

The County will oppose any movement toward nationalization or federal control of New Mexico’s water resources or rights.

Privately held water rights should be protected from federal and/or state encroachment and/or coerced acquisition.

It is imperative that the quality and quantity of water is not reduced below current levels.

It will support projects that will improve water quality and increase the amount and dependability of the water supply.

All potential reservoir sites and delivery system corridors shall be protected from any federal or state action that would inhibit their future use for such purposes.

Any proposed sale, lease, or other exchange of water must adequately consider and satisfy the County’s interest and concerns before the County will participate or support the proposal.

It will not support any proposal that does not protect the County and compensate them for any losses to the County and/or its residents.

It recognizes and will support the existence of all legal canals, laterals, or ditch right-of-way.

All federal and state mandates governing water or water systems should be funded by those agencies and developed in cooperation with the County.

It supports livestock grazing and other managed uses of watersheds and holds that, if properly managed; multiple uses is compatible with watershed management.
It endorses the New Mexico State Water Laws as the legal basis for all water use within the County.

Beneficial use is the basis for the appropriation of water in the state of New Mexico.

It will support all reasonable water conservation efforts. Water saved because of these efforts should be allocated to those persons or entities whose efforts created the savings.

Many wetlands are created by fugitive water from irrigation systems. When law requires mitigation of impacts from conservation and other projects, the creation of artificial wetlands should be considered only after all other mitigation possibilities have been measured. Creation of artificial wetland is contrary to the intent of conservation.

**Timber**

It is the County’s position that:

All forested lands are to be managed for sustained yield and multiple uses.

Managers of public lands must protect the watersheds with respect to water quality and to insure the water yield is not decreased or that it is improved.

Fire, timber harvesting, and treatment programs must be managed as to prevent waste of forest products.

Management programs must provide for fuel load management that will prevent catastrophic events and provide for reduced fire potential at the urban interface.

Management programs must provide for citizens to harvest forest products for personal needs and provide harvesting opportunities for small businesses.

**Energy and Mineral Resource**

It is the County’s position that:

Continued access to energy and mineral resources associated with public lands is paramount to the well being of County residents and its economy, the state of New Mexico and national security.

Any proposal or action taken by state or federal agencies that will result in restriction on reasonable and economical access to these resources shall/will be opposed.

Identification of energy and mineral potential and location is important to planning for future energy needs and resource management planning. The County supports such activity and requests that appropriate agencies plan, fund, and encourage by way of policy, management decisions for such activity.
All management plans must address and analyze the possibility for the development of minerals where there is a reasonable expectation of their occurrence within the planning area.

After environmental analysis, and as provided for in the governing resource management plan, all tracts will be available and offered for lease or open to be claimed as provided by law.

All permits and applications must be processed on a timely basis. Procedures and required contents of application must be provided to the applicant at the time of application.

**Cultural and Heritage Resources**

It is the County’s position that:

Many sites represent a unique culture and are closely related to early religious settlement of the area. They continue to have historical significance that are held by many residents as reverent or consecrated sites, and are the essence of their entity. These sites must remain accessible and be preserved.

The preservation and perpetuation of heritage and culture is important to the area economy as well as to the life styles and quality of life of the Basin residents.

The maintenance of these resources and their physical attributes such as trails, cabins, livestock facilities, etc., is critical to present and future tourism development.

The land, its people, and their heritage form an inseparable trinity for the majority of the area residents and this relationship must be considered in all proposed actions.

Livestock grazing, the resulting lifestyles, and the resulting imprint on the landscapes of the west is one of the oldest enduring and economically important cultural and heritage resources in the west and must be preserved and perpetuated.

It is the County’s position that the National Historic Preservation Act (NHPA) is the basis for cultural and historical preservation and defines federal agency’s responsibility for protection and preservation of cultural and heritage resources and the agency’s responsibility to the County.

**Soils**

It is the County’s position that:

Soil is the basic building block for virtually for all lands uses. The protection of soils from wind and water erosion and maintaining its fertility is critical to sustaining a viable agricultural economy and maintaining high levels of air and water quality.
The Natural Resource Conservation Service (NRCS) soil survey is the basis on which all public land soil related activities would be based.

Soil related activities would be based on all available survey drafts until survey is published. Any deviation from this material or soil data developed outside of the survey must be coordinated with the NRCS.

**Air Quality**

It is the County’s position that:

Maintaining the County’s air quality at its current level is critical to the health and well-being of its residents.

A high level of air quality is important to future economic development as it reduces the possibility of restrictions being placed on that development due to air quality standards being exceeded.

Air quality baselines must be established for the Basin with the full participation of the County.

All air quality related plans and decisions must be based on deviation from a baseline standard established for the County.

To maintain high air quality the County must protect the area’s air from degradation from non-county’s sources. The County will take any actions necessary to protect air quality from degradation by non-Basin sources.

**Wildlife**

It is the County’s position that:

Properly managed wildlife populations are important to the recreation and tourism economy and to the preservation of the culture and lifestyles of its residents.

With proper management and planning, healthy wildlife population are compatible with other resource development.

Wildlife numbers will remain at the allocated level until study and analysis are completed to determine the ability of forage resources to support the increases and species population trends.

No increases in wildlife numbers or the introduction of additional species may be made until the increase in forage or habitat has been provided for and the impacts on other wildlife species has been assessed.
Reduction in forage allocation resulting from forage studies, drought, or other natural disasters will be shared proportionately by wildlife.

Wildlife target levels and/or populations must not exceed the forage assigned to wildlife in the RMP forage allocations.

In evaluating a proposed introduction of wildlife species, priority will be given to species that will provide for increased recreational activities.

Predator and wildlife numbers must be controlled to a level that protects livestock and other private property from loss or damage and to prevent decline in populations of other wildlife species.

That through wildlife habitat mitigation banking impacts of development can be mitigated in a more efficient and planned manner. While providing for multiple use and when implemented, this system could provide much-needed habitat for wildlife.

**Forage Allocation/Livestock Grazing**

It is the County’s position that:

The proper management and allocation of forage on public lands is critical to the viability of the County’s agriculture, recreation, and tourism industry.

The viability of a large number of agriculture and livestock operations are dependent on access to grazing on public lands.

Management of forage resources directly affects water quality and water supplies.

Forage allocated to livestock may not be reduced for allocation to other uses. Current livestock allocation will be maintained.

Increases in available forage resulting from conservation practice, improved range condition, or development of improvements by the livestock permittee or other allocations, unless the funding source specifies the benefactor.

Increases in available forage resulting from practices or improvements implemented by managing agency will be allocated proportionately to all forage allocations, unless the funding source specifies the benefactor.

Upon termination of a permit, livestock permittee will be compensated for the remaining value of improvements or be allowed to remove such improvements that permittee made on his/her allotment.
Forage reductions resulting from forage studies, fire, drought, or other natural disasters will be implemented on an allotment basis and applied proportionately based on the respective allocations.

Permittee may sell or exchange permits. Such transaction shall be promptly processed.

Changes in season of use or forage allocation must not be made without full and meaningful consultation with permittee. The permittee must be the first point of contact.

Livestock allocations must be protected from encroachment by wild horses and wildlife.

Permanent increases or decreases in grazing allocations reflecting changes in available forage will be based on the vegetative type of the forage and applied proportionately to livestock or wildlife based on their respective dietary need.

**Paleontology/Archeology/Geology**

Remnants of early life forms, geological history and cultures have evolved as an important segment of a local economy and has become the signature of the local tourism trade. Considerable investment has been made in museums and visitors centers to promote these important resources.

It is the County’s position that:

All significant artifacts found in the area remain here.

Resource Management Plans must provide opportunity for amateur collectors and students of these sciences to study, explore for, and collect related items as provided for by law.

Public land management agencies should promote these resources with educational material, signage, and information centers where appropriate.

**Off Highway Vehicles (OHV)**

It is the County’s position that:

OHV’s have become an important segment of the recreation industry and is an important tool and mode of transportation for farmers, ranchers, and resources development.

It supports the current policy of open recreation areas.

The County will support limiting of OHV to existing roads and trails and the development of designated trail system only in areas that demonstrate documented and substantiated adverse impacts. These designations must occur only in situations where it has been substantiated that adverse impacts cannot be mitigated by other management methods.
When the necessity for a closure has been established, additional trails, and areas must be opened to offset the loss of that recreational opportunity.

Public land management agencies must implement and maintain an aggressive OHV program to educate users on how to reduce resource impacts. This is to be followed by an aggressive enforcement program.

The non-recreational use of OHVs, such as development and livestock operations, must be provided for in all areas unless restricted by law.
Glossary of Terms

The legal foundation for the Catron County Comprehensive Plan dates back to 1803. To correctly interpret the laws cited in the comprehensive plan, it is necessary to apply word definitions which were in effect when the laws were promulgated. For example, a Supreme Court decision of 1855 stated that the meaning of the words of the Guadalupe-Hidalgo Treaty were to be locked forever under the meaning of the words of the ancient treaty of the Louisiana Purchase of 1803. Applicable definitions have been provided below.

Definitions as applied to the *Catron County Comprehensive Plan* are taken primarily from the two following sources:


**Affected Interest**

One whose pecuniary interest in the subject matter of an action is directly and injuriously affected and whose right of property is either established or divested by the complained by decision. *Whitman v. Whitman*, 397 P.2d 667 (Okla 1964). One whose legal right is invaded by an act complained of, or whose pecuniary interest is adversely affected by a decree or judgment. *Black’s Law Dictionary*, 65 (6th ed. 1991).

**Appurtenance**

That which belongs to something else; an adjunct; an appendage. Appropriately, such buildings, rights, and improvements, as belong to land, are called to *appurtenances*, as small buildings are the *appurtenances* of a mansion. *Webster*
Appurtenant
Belonging to; pertaining to of right. In law, common appurtenant is that which is annexed to land, and can be claimed only by prescription or immemorial usage, on a legal presumption of a special grant. Webster

Common Law
That system of law or form of the science of jurisprudence which has prevailed in England and in the United States of America, in contradistinction to other great systems, such as the Roman or Civil Law. Those principles, usages, and rules of action applicable to the government and security of persons and of property, which do not rest for their authority upon any express and positive declaration of the will of the legislature… The law of any county to denote that which is common to the whole county, in contradistinction to laws and customs of local application. The most predominant characteristic which marks this contrast, and perhaps the source of distinction, lies in the fact that in the common law neither the stiff rule of a long antiquity, on the one hand, nor, on the other, the sudden changes of a present arbitrary power, are allowed ascendancy, but, under the sanction of a constitutional government, each of these is set off against the other; so that the will of the people, as it is gathered both from long-established custom and from the expression of legislative power, gradually forms a system, --just, because it is the deliberate will of a free people, --stable, because it is constant revision of the people. A full idea of the genius of the common law cannot be gathered without a survey of the philosophy of English and American history. Bouvier

Culture
The application of labor or other means to improve good qualities in or growth; and the culture of the mind; the culture of virtue. Any labor or means employed for improvement, correction, or growth. Webster

Custom
In law, long established practice, or usage, which constitutes the unwritten law, and long consent to which gives it authority. Customs are general, which extend over a state or kingdom, and particular, which are limited to a city or district. Webster

Such a usage as by common consent and uniform practice has become the law of the place, or of the subject matter, to which it relates. In order to establish a custom, it will be necessary to show its existence for so long a time that —the memory of man runneth not to the contrary,— and that the usage has continued without any interruption of the right; for, if it has ceased for a time for such a cause, the revival gives it a new beginning, which will be what the law calls within memory. It will be no objection, however, that the exercise of the right has been merely suspended.
[Citations Omitted] It must also have been peaceably acquiesced in and not subject to dispute; for, as customs owe their origin to common consent, their being immemorially disputed, either at law or otherwise, shows that such consent was wanting. [Citations Omitted] In addition to this, customs must be reasonable and certain… Evidence of usage is never admissible to oppose or alter a general principle or rule of land, so as, upon a given state of facts, to make the legal rights and liabilities of the parties other than they are by law. [Citations Omitted] Bouvier

Equitable Estate
A right or interest in land, which not having the properties of a legal estate, but being merely a right of which courts of equity will take notice, requires the aid of such court to make it available. These estates consist of uses, trusts, and powers. Bouvier

Grant
To admit as true what is not proved; to allow; to yield; to concede. We take that for granted which is supposed to be true…to give; to bestow or confer on with compensation, particularly in answer to prayer or request… To transfer the title of a thing to another, for a good or valuable consideration; to convey by deed or writing. Webster A generic term applicable to all transfers of real property. Bouvier

Office grant applies to conveyances made by some officer of the law to effect certain purposes where the owner is either unwilling or unable to execute the requisite deeds to pass title. Private grant is a grant by the deed of a private person. Public grant is the mode and act of belonged to the government. The public lands of the United States and or the various states have been to a great extent conveyed by deeds or patents issued in virtue of general laws; but many specific grants have also been made, and are the usual method of transfer during the colonial period. Bouvier

Hereditament
Any species of property that may be inherited; lands, tenements, anything corporeal or incorporeal, real, personal, or mixed, that may descend to an heir. A corporeal hereditament is visible and tangible; and incorporeal hereditament is an ideal right, existing in contemplation of law, issuing out of substantial corporeal property. Webster

Incorporeal Hereditament
Anything, the subject of property, which is inheritable and not tangible or visible. A right issuing out of a thing corporate (whether real or personal) or concerning or annexed to or exercisable within the same. Bouvier
Interested Party
The most general term that can be employed to denote a right, claim, title, or legal share in something. For the purposes of an administrative hearing, interested parties are those who have a legally recognizable private interest and not a simple pecuniary interest. First National Bank v. Oklahoma Savings & Loan Bd, 569 P.2d 993 (Okla. 1977).

Occupancy
The act of taking possession. In law, the taking possession of a thing not belonging to any person. The person who first takes possession of land is said to have or hold it by right of occupancy. Occupancy gave the original right to the property in the substance of the earth itself. Webster

The taking possession of those things corporeal which are without an owner, with an intention of appropriating them to one’s own use. Pothier defines it to be the title by which one acquires property in a thing which belongs to nobody, by taking possession of it with design of acquiring it. Bouvier

Occupant
In law, one that first takes possession of that which has no legal owner. The right of property, either in wild beasts and fowls, or in land belonging to no person, vests in the first occupant. The property in these cases follows the possession. Webster

Occupy
The person who first occupies land which has no owner, has the right of property. Webster

Pioneer
One that goes before to remove obstructions or prepare the way for another. Webster

Preemption
The right of purchasing before others. Prior discovery of unoccupied land gives the discoverer the prior right of occupancy. Prior discovery of land inhabited by savages is held to give the discoverer the preemption, or right of purchase before others. Webster

Preemption Right
The right given to settlers upon the public lands of the United States to purchase them at a limited price in preference to others. It gives a right to the actual settler who has entered and occupied without title, to obtain a title to a quarter-section at the minimum price fixed by law, upon entry in the proper office and payment, to the exclusion of all other persons. It is an equitable title, [Citations Omitted] and does not become a title at law to the land till entry and payment [Citations Omitted].
It may be transferred by deed, [Citations Omitted] and descends to the heirs of an estate. [Citations Omitted] Bouvier

Preference
The act of preferring one thing before another; estimation of one thing above another; choice of one thing rather than another. Webster

Prescription
In law, a prescribing for title; the claim of title to a thing by virtue of immemorial use and enjoyment; or the right to a thing derived from such use. Prescription differs from custom, which is a local usage. Prescription is a personal usage, usage annexed to the person. Nothing but incorporeal hereditaments can be claimed by prescription. In Scots law, the title to lands acquired by uninterrupted possession for the time which the law declares to be sufficient, or 40 years. This is positive prescription. Negative prescription is the loss or omission of a right by neglecting to use it during the time limited by law. Webster

Prescriptive
Consisting in or acquired by immemorial use and enjoyment; as a prescriptive right or title. Pleading the continuance and authority of custom. Webster

Presumption
Blind or headstrong confidence; unreasonable adventurousness; a venturing to undertake something without reasonable prospect of success, or against the usual probabilities of safety; presumptuousness. Webster

Prior Appropriation
The doctrine created by the customs or common law of the mining industry Irvin v. Phillips, S Cal 104 (1855), and recognized by the general mining law of 1872 30 U.S.C. 322. Prior or Priority means precedence; going before. He who has the precedency in time has the advantage in right, is the maxim of the law; not that time, considered barely in itself, can make any such difference, but because, the whole power over a thing being secured to one person, this bars all others from obtaining a title to it afterwards. Bouvier

Appropriation of water flowing on the public domain means that capture, impounding, or diversion of it from its natural course or channel and its actual application to some beneficial use private or personal to the appropriator, to the exclusion (or exclusion to the extent of the water appropriated) of all other persons. Black’s Law dictionary 93 (5th ed. 1979)
Privilege
A particular and peculiar benefit or advantage enjoyed by a person, company, or society, beyond the common advantages of other citizens. A privilege may be a particular right granted by law or held by custom, or it may be an exemption from some burden to which others are subject. Any peculiar benefit or advantage, right, or immunity, not common to others of the human race. Webster

Property
The exclusive right of possessing, enjoying, and disposing of a thing; ownership. In the beginning of the world, the Creator gave to man dominion over the earth, over the fish of the sea and the fowls of the air, and over every living thing. This is the foundation of man's property in the earth and in all its productions. Prior occupancy of land and of wild animals gives to the possessor the property of them. Property is sometimes held in common land or stock is exclusively his own. One man may have the property of the soil, and another the right of use, by prescription or by purchase. Webster

Public
The whole body politic, or all the citizens of the state. The inhabitants of a particular place: as, the New York public… When the public interests and its rights conflict with those of an individual, the latter must yield… In such a case both law and justice require that the owner shall be fully indemnified. Bouvier

Right
Just claim; immunity; privilege. All men have a right to the secure enjoyment of life, personal safety, liberty, and property. In the United States, a tract of land; or a share or proportion of property, as in a mine or manufactory. Webster

Settlement
The act of giving possession by legal sanction. The act of plating or establishing, as a colony. Webster

Settle[r]
To fix; to establish; to make permanent in any place. To plant with inhabitants; to colonize. To fix one's habitation or residence. Webster
The Catron County Comprehensive Land Use & Policy Plan

Part I
Catron County Land Use Ordinances
The following ordinances have been adopted by the Catron County Commission for the implementation of the comprehensive plan:

001-91  An Ordinance Adoption the Public Rangelands Improvement Act in Catron County

002-91  An Ordinance Adopting the Criminal and Civil Provisions of Title 18 & Title 42 USC Civil Rights Act into County Law

003-91  An Ordinance Pertaining to Unconstitutional Takings

001-92  An Ordinance Defining and Declaring Highways

003-92  An Ordinance Repealing Catron County Ordinance No. 004-91, The Interim Land Plan

004-92  An Ordinance Declaring the Catron County Board of County Commissioners to be a Land Management Agency

005-92  An Ordinance Recognizing Property Rights

008-92  An Ordinance Providing for Intergovernmental Coordination in Water Planning

009-92  An Ordinance Providing for Water Allocation and Riparian Management

010-92  An Ordinance Providing for Emergency Water Management

011-92  An Ordinance Providing for the Protection of Rights to and Uses of Water.

001-93  An Ordinance providing for the Implementation of the Catron County Comprehensive Land Use Plan.

002-93  An Ordinance Revising the Catron County Environmental Planning and Review Process and Repealing Ordinance 006-92

004-93  An ordinance Providing for the Implementation of the Catron County Water Plan and Repealing Catron County Ordinance 007-92

001-94  An Ordinance Providing for the formation of and Outlining the Duties of the Catron County Land Planning Committee

002-2002 An Ordinance Prohibiting Release into the Wild of Certain Genera (Repealing Ordinance 002-93)
ORDINANCE OF THE CATRON COUNTY COMMISSION, State of New Mexico, (1) adopting an emergency Ordinance to protect the public peace, general welfare, health, and safety of the citizens and the Governments of Catron County from immediate and ongoing economic and financial damage, (2) requesting that the Legislature of the State of New Mexico enact similar legislation to codify within state law such statutes as enacted by county Ordinance and by the United States Congress.

THE COMMISSION FINDS:

1. That the Public Rangelands Improvement Act (PRIA), 43 U.S.C. §§1901 et seq, was authorized by Congress on October 25, 1978, and has not been repealed by statute, regulation or court decree.

2. That the purpose of the Public Rangelands Improvement Act is to “(1) inventory and identify current public rangeland conditions and trends as part of an inventory process” and “(2) manage, maintain and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values.” 43 U.S.C. §1901(b).

3. That pursuant to the Public Rangelands Improvement Act, on July 30, 1980, the State of New Mexico entered into a Memorandum of Understanding (MOU) with the Bureau of Land Management, U.S. Department of the Interior, the purpose of which is to provide for “consultation, cooperation, and coordination between the parties in matters relating to rangeland management on public lands of the United States in New Mexico administered by the Bureau of Land Management, New Mexico and the Governor of New Mexico to further expand the concept of consultation, cooperation, and coordination expressed in Section 8 of the public Rangelands Improvement Act into additional phases of the Rangeland Management Program and thus complement the Congressional intent of the Act.”

4. That this MOU between the State of New Mexico and the Bureau of Land Management, Department of the Interior has not been repealed or rescinded.

5. That pursuant to the Public Rangelands Improvement Act, on July 28, 1987, the Director of the New Mexico Department of Agriculture (NMDA) entered into a Memorandum of Understanding (MOU) with the Regional Forester, U.S. Department of Agriculture, Forest Service, Southwestern Region, the purpose of which is to “promote efficient multiple-use management of the range resources in the Southwestern Region, USDA Forest Service. That management is to be responsive to the overall public interest, produce healthy, useful forests and grasslands, reflect a strong land ethic and apply current scientific Forest and rangeland management principles.” The MOU goes on to state, “When a single allotment is involved, such cooperation (as authorized by the Public Rangelands Improvement Act of October 25, 1978) ensures full participation of the permittee(s) and NMDA in the planning process if requested and agreed to by the permittee.”

6. That the MOU between the New Mexico Department of Agriculture and the U.S. Forest Service has not been repealed or rescinded.

7. That the Public Rangelands Improvement Act and the accompanying Memorandums of Understanding represent sound land management principles for all federal lands management by the U.S. Forest Service and the Bureau of Land Management, including those lands within Catron County, New Mexico.
BE IT DECREED BY THE CATRON COUNTY COMMISSION,
STATE OF NEW MEXICO

THE COMMISSION DECLARES:

1. That to provide for the general welfare, public peace, health and safety of the citizens of Catron County, emergency passage of this Ordinance is required to protect the economic base upon which this County and its citizens depend.

2. That the Public Rangelands Improvement Act, 43 U.S.C. §§1901 et seq. shall be adopted as a county Ordinance by the County Commissioners of Catron County, New Mexico.

3. That the Memorandum of Understanding between the Governor of New Mexico and the New Mexico State director, Bureau of Land Management, U.S. Department of the Interior, dated July 30, 1980 shall be incorporated by reference into this county ordinance, with the following provisions.

4. That the Memorandum of Understanding between the Director of the New Mexico Department of Agriculture (NMDA) and the Regional Forester, U.S. Department of Agriculture, Forest Service (USFS) Southwestern Region, dated July 28, 1987 shall be incorporated by reference into this county ordinance, with the following provisions.

5. That the procedures set forth in the Public Rangelands Improvement Act and accompanying Memorandums of Understanding as modified by this Ordinance shall govern all actions involving the federal agencies of the Bureau of Land Management and the U.S. forest Service and either an individual or group of livestock grazing permittee(s) or lessee(s), including but not necessarily limited to the issuance of a grazing permit(s) or lease(s) by the federal agencies, the transfer or sale of a gazing permit(s) or lease(s) from one party to another, the creation or revision of an allotment management plan, and other like actions or as requested by the permittee(s) or lessee(s).

6. That upon the initiation of the actions described above by the Bureau of Land Management or the permittee(s) or lessee(s), the Bureau of Land Management shall initiate the consultation procedures described in the Memorandum of Understanding between the Governor of New Mexico and the New Mexico Director, Bureau of land management, U.S. department of the Interior, dated July 30, 1980, and adopted by this Ordinance. The initiation of such action under the MOU shall occur within a two week period of time.

7. That upon initiation of the actions described above by the U.S. Forest Service or the permittee(s) or lessee(s), the U.S. Forest Service shall initiate the consultation procedures described in the Memorandum of Understanding between the Director of the New Mexico Department of Agriculture (NMSA) and the Regional Forester, U.S. Department of Agriculture, Forest Service (USFS) Southwestern Region, dated July 28, 1987, and adopted by this Ordinance. The initiation of such action under the MOU shall occur within a two week period of time.

8. That violations of this Ordinance by the federal agencies shall be deemed to be a violation of Catron County Ordinance number 001-91. Liability under this Ordinance shall be placed upon the federal official or officials responsible for making and implementing any decision which fails to comply with this Ordinance.

9. That no violation of this Ordinance shall be assessed if all of the permittee(s) or lessee(s) effected by the agency decision release, in waiting, the federal agency of all responsibility for the violation within two weeks of the date of the agency decision.

10. That if any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.
PASSED, ADOPTED, AND SIGNED by the Catron County Board of County Commissioners as Catron County Ordinance No. 001-91 and recorded with the Catron County Clerk this 21st day of August, 1990.

ATTEST:

/s/ ____________________________
Jim Blancq, Clerk

BOARDS OF CATRON COUNTY COMMISSION

/s/ ____________________________
G. V. Allred, Jr.

/s/ ____________________________
S. Rufus Choate

/s/ ____________________________
Phillip W. Swapp
THE COMMISSION ADDITIONALLY FINDS:
4. That an additional purpose of the Civil Right Act, 42 U.S.C. § 1983, based upon the Act of April 20, 1871, ch 22, §1, 17 Stat. 13, is to protect citizens of the United States from acts which deprive them from enjoying their Constitutionally protected rights, privileges, and immunities. Should such deprivation occur, such offender shall be liable to the injured party in a suit in equity, or action at law. The Civil Rights Act 1871 states:

That any person who, under color of law or any law, statute, ordinance, regulation, custom, or usage of any State, shall subject, or cause to be subjected, any person within the jurisdiction of the United States to the deprivation of any rights, privileges, or immunities secured by the Constitution of the United States, shall, any such law, statute, ordinance, regulation, custom, or usage of the State to the contrary notwithstanding, be liable to the party injured in any action at law, suit in equity, or other proper proceeding for redress. 17 Stat. 13 (1871).

5. That the Civil rights Act at 18 U.S.C. §§241, 245, states:

If two or more persons conspire to injure, oppress, threaten, or intimidate any citizen in the free exercise or enjoyment of any right or privilege secured to him by the Constitution of laws of the United States... They shall be fined not more than $10,000 or imprisoned not more than ten years, or both; and if death results, they shall be subject to imprisonment for any term of for life. 18 U.S.C. §241.

Nothing is this section shall be construed as indicating an intent on the part of Congress to prevent any State, any possession or Commonwealth of the United States, or the District of Columbia, from exercising jurisdiction over any offense which it would have jurisdiction in the absence of this section, nor shall anything in this section be construed as depriving State and local law enforcement authorities of responsibility for prosecuting acts that may be violations of this section and that are violations of State and local law. 18 U.S.C, §1245(a)(1).

6. That the U.S. Supreme Court has ruled that rights in property are basic civil rights. The Supreme Court states:

Property does not have rights. People have rights. The right to enjoy property without unlawful deprivation, no less than the right to speak or
the right to travel, is in truth a “personal” right, whether the “property” in question be a welfare check, a home, or a savings account. In fact, a fundamental interdependence exists between the personal right to liberty and the personal property right. Neither could have meaning without the other. That rights in property are basic civil rights has long been recognized. (Citations omitted) Congress recognized these rights in 1871 when it enacted the predecessor of §§1983 and 1343(3). We do no more than reaffirm the judgment of Congress today. *Lynch v. Household Finance Corp*, 405 U.S. 538 (1972).

**THE COMMISSION ADDITIONALLY DECLARES:**

7. That in addition to any criminal actions that may occur through the enforcement of this statute, that every person, who under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory or the District of Columbia, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress. (This language has been taken from 42 U.S.C. §1983). In any such action at law, suit in equity, or other proceeding, the injured party may include a request for and offer evidence that punitive and/or other monetary damages should be assessed upon the offending party.

**PASSED, ADOPTED, AND SIGNED** by the Catron County Board of County Commissioners as Catron County Ordinance No. 002-91 Amendment 1, and recorded with the Catron County Clerk this 16th day of October, 1990.

**BOARD OF COUNTY COMMISSIONERS**
**CATRON COUNTY, NEW MEXICO**

**ATTEST:**

/s/ ________________________________
G. V. Allred, Jr.

/s/ ________________________________
J. V. Blancq, Clerk

/s/ ________________________________
S. Rufus Choate

/s/ ________________________________
Phillip W. Swapp
ORDINANCE OF THE CATRON COUNTY COMMISSION, STATE OF NEW MEXICO, (1) ADOPTING AN EMERGENCY ORDINANCE TO PROTECT THE PUBLIC PEACE, GENERAL WELFARE, HEALTH, AND SAFETY OF THE CITIZENS OF CATRON COUNTY FROM VIOLATIONS OF THE CONSTITUTIONAL AND CIVIL RIGHTS OF THE CITIZENS, (2) PROVIDING PENALTIES FOR VIOLATIONS OF THE ORDINANCE, AND (3) REQUESTING THAT THE LEGISLATURE OF THE STATE OF NEW MEXICO ENACT SIMILAR LEGISLATION TO CODIFY WITH STATE LAW SUCH STATUTES AS ENACTED BY COUNTY ORDINANCE AND BY THE UNITED STATES CONGRESS.

THE COMMISSION FINDS:
1. That the purpose of the Civil Rights Act, 18 U.S.C. §§241 et seq. is to protect the citizens of the United States from acts which “injure, oppress, threaten, or intimidate any citizen in the free exercise or enjoyment of any right or privilege secured to him by the Constitution or laws of the United States.”

2. That as part of the Civil Rights Act, 18 U.S.C. §§245(a)(1) allows state and local law enforcement authorities the authority and responsibility for prosecuting acts that may be in violation of the Civil Rights Act and that violate state or local law.

3. That the Commissioners of Catron County endorse the protections, rights or privileges afforded by the U.S. Constitution and the Civil Rights Act and desire to ensure that those protections, rights or privileges are afforded to the citizens of Catron County.

BE IT DECREED BY THE CATRON COUNTY COMMISSION, STATE OF NEW MEXICO

THE COMMISSION DECLARES:
1. That to provide for the general welfare, public peace, health and safety of the citizens of Catron County, emergency passage of this Ordinance is required to protect the citizens of Catron County from current or potential violations of their rights or privilege as guaranteed by the U.S. Constitution, federal statutes and local Ordinances.

2. That the Civil Rights Act, 18 U.S.C. §§241 et seq. shall be adopted as a county Ordinance by the County Commission of Catron County.

3. That all violations of this Ordinance and the rights or privileges that this Ordinance protects, shall be filed with the county, district or prosecuting attorney or with the district court judge for submission to a grand jury. Once a petition regarding such violations of a right or privilege protected by this Ordinance is filed with the county, district or prosecuting attorney or the grand jury, an investigation of such violation must occur, including a determination of the identification of the person(s), including but not limited to any employee of the federal, state or county government responsible for such violation.
4. That nothing is this Ordinance shall be construed to prohibit the county officers or the grand jury from investigating any potential violation of this Ordinance.

5. That all violations of this Ordinance shall be considered a criminal matter, therefore the punishment imposed upon the determination of guilty verdict shall be the maximum punishment allowed by the state law of New Mexico.

6. That if any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

THE COMMISSION DIRECTS that a copy of this Ordinance be forwarded to the Legislature for the State of New Mexico and respectfully requests that similar legislation be passed by the state.

PASSED, ADOPTED, AND SIGNED by the Catron County Board of County Commissioners as Catron County Ordinance No. 002-91 and recorded with the Catron County Clerk this 21st day of August, 1990.

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

ATTEST:

/s/ ______________________________
G. V. Allred, Jr.

/s/ ______________________________
J. V. Blancq, Clerk

/s/ ______________________________
S. Rufus Choate

/s/ ______________________________
Phillip W. Swapp

THE COMMISSION FINDS:

1. That the fifth and Fourteenth Amendments to the United States Constitution provides that private property shall not be taken for a public use without payment of just compensation and without due process.

2. That the Supreme Court of the United States has also examined those constitutional protections and affirmed that such taking shall not occur. (See First Evangelical Lutheran Church of Glendale v. County of Las Angeles, 107 S.Ct. 2378 (1987) (Reaffirming the Constitutional right granting compensation to a private property owner for a governmental regulation that deprived that owner of the reasonable economic use of his property, even though the deprivation or taking was only temporary) and Nollan v. California Coastal Commission, 107 S.Ct. 3141 (1987) (Requiring that governmental land use decisions or regulations be narrowly focused on the public benefit as compared to the necessity of taking private property).

3. That on March 18, 1988, Presidential Executive Order 12630 was enacted and requires all federal agencies to analyze the economic effects or takings implications of their proposed policies, decisions, rules, and regulations on the private property, private property rights and investment backed expectations of individual citizens.

4. That pursuant to this Executive Order and Supreme Court cases, the Attorney General for the United States has promulgated guidelines that define private property and property rights and establish a procedure for federal agencies and departments to utilize in analyzing the effects of their proposed rules, action, and decisions on private property.

5. That the Commissioners of Catron County endorse the private property protections guaranteed by the U.S. Constitution and desire to ensure that those protections and rights are afforded to the citizens of Catron County.
BE IT DECREED BY THE CATRON COUNTY COMMISSION,  
STATE OF NEW MEXICO

THE COMMISSION DECLARES:

1. That to provide for the general welfare, public peace, health and safety of the citizens of Catron County, emergency passage of this Ordinance is required to protect the citizens of Catron County from current or potential violations of their Constitutionally protected property rights.

2. That the following definition of private property as taken from the Attorney General’s Guidelines for the Evaluation of Risk and Avoidance of unanticipated Takings, dated June 30, 1988 (Guidelines adopted pursuant to Executive order 12630) shall be adopted within Catron County:

   a. Private property includes all property protected by the Fifth and Fourteenth Amendments to the United States Constitution, including but not limited to, real and personal property and tangible and intangible property.

   b. Private property protections shall also include protection for “investment backed expectations.”

3. That all private property and private property rights within Catron County as herein defined shall be fully protected under the Fifth and Fourteenth Amendments of the U.S. Constitution and under the Civil Rights Act.

4. That violations of this Ordinance by the state and federal agencies shall be deemed to be a violation of Catron County Ordinance number 003-91. Liability under this Ordinance shall be placed upon the federal official or officials responsible for making and implementing any decision which fails to comply with this Ordinance.

5. That if any provision of this Ordinance or the application thereof is held invalid, does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

THE COMMISSION DIRECTS that a copy of this Ordinance be forwarded to the Legislature for the State of New Mexico and respectfully requests that similar legislation be passed by the state.

PASSED, ADOPTED, AND SIGNED by the Catron County Board of County Commissioners as Catron County Ordinance No. 003-91 and recorded with the Catron County Clerk this 25th day of September, 1990.

BOARD OF COUNTY COMMISSIONERS  
CATRON COUNTY, NEW MEXICO

ATTEST:  

/s/ ________________________________  
Rufus Choate

/s/ ________________________________  
J. V. Blancq, Clerk
/s/ G. V. Allred, Jr.

/s/ Phillip W. Swapp
STATE OF NEW MEXICO
CATRON COUNTY
RESERVE, NEW MEXICO 87830

ORDINANCE 001-92

AN ORDINANCE DEFINING AND DECLARING HIGHWAYS

WHEREAS, 43 USC 932 (RS 2477) provides that “the right of way for the construction of highways over public land, not reserved for public uses, is hereby granted;” and,

WHEREAS, although RS 2477 was repealed with passage of the 1976 Federal Land Policy and Management Act, existing rights under the old Statute were preserved; and,

WHEREAS, Section 67-2-1, NMSA, 1978 declares “all roads and highways, except private roads, established in pursuance of any law of New Mexico, and roads dedicated to public use, that have not been vacated or abandoned, and such other roads as are recognized and maintained by the corporate authorities of any county in New Mexico, are hereby declared to be public highways;” and,

WHEREAS, the Catron County Commission wishes to assert rights of way on all its roads created by public use,

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF CATRON COUNTY, NEW MEXICO:

Section 1. All roads in Catron County on Federal Lands created prior to the U.S. forest reservation, or Bureau of Land Management creation are defined and declared public roads by Section 67-2-1, NMSA, 1978.

Section 2. This ordinance shall be recorded in the book kept for that purpose and shall be authenticated by the signature of the County Clerk and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 6th day of October, 1992.

ATTEST:

/s/ ____________________________
Rufus Choate, Chairman

/s/ ____________________________
J. V. Blancq, County Clerk

/s/ ______________________________
Carl Livingston, Member

/s/ ______________________________
Hugh B. McKeen, Jr., Member
AN ORDINANCE REPEALING CATRON COUNTY ORDINANCE NO. 004-91,
THE INTERIM LAND PLAN.

WHEREAS, on 21st May, 1991, the Catron County Commission passed
Ordinance No. 004-91, the Interim Land Plan; and,

WHEREAS, on September 1, 1992, the Commission adopted the Catron County
Comprehensive Land Plan; and,

WHEREAS, the interim Land Plan is now obsolete,

NOW THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY
OF CATRON COUNTY:

Section 1. Catron County Ordinance No. 004-91, The Interim Land Plan is
hereby repealed in full.

Section 2. This ordinance shall be recorded in the book kept for the purpose and
shall be authenticated by the signature of the County Clerk and shall take effect in
accordance with law.

PASSED, APPROVED, AND ADOPTED this 6th day of October, 1992.

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

ATTEST:  /s/                      Rufus Choate, Chairman

/s/                      J. V. Blancq, County Clerk  /s/                      Carl Livingston, Member

/s/                      Hugh B. McKeen, Jr., Member
STATE OF NEW MEXICO
CATRON COUNTY
RESERVE, NEW MEXICO 87830

ORDINANCE 004-92

AN ORDINANCE DECLARING THE CATRON COUNTY BOARD OF COUNTY
COMMISSIONERS TO BE A LAND MANAGEMENT AGENCY

WHEREAS, seventy-five percent of Catron County is Federal or State Land; and,

WHEREAS, certain Federal and State laws accord preferences to land management agencies; and,

WHEREAS, Catron County has adopted a Comprehensive Land Plan,

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF CATRON
COUNTY:

Section 1. The Catron County Board of County Commissioners is hereby declared to be a land management agency.

Section 2. This ordinance shall be recorded in the book kept for that purpose and shall be authenticated by the signature of the County Clerk and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 6th day of October, 1992.

ATTEST:

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

/s/ _________________________________
Rufus Choate, Chairman

/s/ _________________________________
J. V. Blancq, County Clerk

/s/ _________________________________
Carl Livingston, Member

/s/ _________________________________
Hugh B. McKeen, Jr., Member
STATE OF NEW MEXICO
CATRON COUNTY
RESERVE, NEW MEXICO 87830

ORDINANCE 005-92

AN ORDINANCE RECOGNIZING PROPERTY RIGHTS

WHEREAS, the issue of property and property rights is a matter reserved to State law; and,

WHEREAS, Catron County is a political subdivision of the State; and,

WHEREAS, historically was Spanish and Mexican custom that one grazing public lands earned an equitable estate in such lands; and,

WHEREAS, the original Forest Service regulations sanctioning grazing on federal lands recognized and protected the herdsman’s prior right to the forage and taxed grazing permits as private property; and,

WHEREAS, grazing permits have been recognized by the Forest Service (Heart Bar, Grant County) and by the Bureau of land management (McGregor Range, Otero County) to have monetary values; and,

WHEREAS, the I.R.S. recognizes and taxes the property rights in grazing permits {Shufflebarger vs I.R.S., 24T.C. 980 (1955)}; and,

WHEREAS, in some Western States Federal grazing permits are recognized and taxed by the State as property rights.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF CATRON COUNTY:

Section 1. Hereafter in Catron County federal land grazing permits will be recognized as property rights.

Section 2. This ordinance shall be recorded in the book kept for that purpose and shall be authenticated by the signature of the County Clerk and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 6th day of October, 1992.

ATTEST:

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

/s/
Rufus Choate, Chairman

/s/
J. V. Blancq, County Clerk

/s/
Carl Livingston, Member

/s/
Hugh B. McKeen, Jr., Member
ORDINANCE 008-92

AN ORDINANCE PROVIDING FOR INTERGOVERNMENTAL COORDINATION IN WATER PLANNING

WHEREAS, Federal agencies are, in accordance with Federal land management laws, to ensure that their planned actions consider and coordinate with the Catron County Water Plan; and,

WHEREAS, it is the intent of Catron County Citizens to be directly involved in the planning for and the management of the water within the County.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF COUNTY OF CATRON:

Section 1. The Catron County Commission is to be notified of all Interstate and Federal water development or other actions that may have any impact on the water rights or uses within Catron County prior to initiating actions. Failure to notify the County shall constitute a violation of this ordinance and all decisions made without prior notification shall be considered null and void.

Section 2. If any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

Section 3. Conviction of violation of this Ordinance may carry a fine of $300 or imprisonment of 90 days or both.

Section 4. This Ordinance shall be recorded in the book kept for that purpose and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 17th day of November, 1992.

ATTEST:

/s/ Rufus Choate, Chairman

/s/ J. V. Blancq, County Clerk

/s/ Carl Livingston, Member

/s/ Hugh B. McKeen, Jr., Member
AN ORDINANCE PROVIDING FOR WATER ALLOCATION AND RIPARIAN MANAGEMENT

WHEREAS, the development of additional sources of water and the enhancement of current sources for future water needs is a desirable goal expressed by the Citizens of Catron County; and,

WHEREAS, the Citizens of Catron County recognize the value of a healthy economy and environment.

INTENT

How, what for and where water is used are the central issues in management of water. It is the intent of the Catron County Water Plan to ensure that diverse opportunities for water use are maximized.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF COUNTY OF CATRON:

Section 1. Definitions as used in this ordinance.

a. “reserved water rights” means: Future water needs defined by examination of current uses and 40 (forty) year projections based on the best information available.

Section 2. Water Allocation

a. The County Commissioners may cause to be established the Catron County Water Bank to promote or pursue development of water markets for existing, as well as future water rights for agricultural, municipal, industrial, domestic, and environmental purposes.

b. Reserved water rights may be held in the County’s name in the Catron County Water Bank or by other appropriate means for each basin until each basin forms their own water Association or other local water authority capable of ownership of said reserved water rights. At such time the County shall transfer each basin’s respective rights to said association or appropriate water authority.

c. The County Commission may promote and may engage in providing opportunities for the development of water-based recreation within the County. This may include, but not be limited to, flat water recreation, stream fishery enhancement, wildlife viewing and river floating.

d. The County Commission may promote and may engage in providing opportunities for the development of alternate water uses and alternatives to water use within the County. This shall include, but not be limited to, watershed improvement, in-stream flow, riparian management, liquid and solid waste disposal and drought management.

Section 3. Riparian Management

a. Wild and Scenic river designation boundaries shall not be located closer than two miles upstream or downstream of private property unless the designation is negotiated with and approved by the property owner.
b. Wild and Scenic river designations, in-stream flow requirements, designations of critical habitat, wilderness designations and riparian management plans shall not act to jeopardize customary and cultural human, livestock, and wildlife access to water.

c. In-stream flow requirements shall only be established within the parameters of historic flows. Average or mean flows shall not be used in setting flow requirements.

Section 4. If any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

Section 5. Conviction of violation of this Ordinance may carry a fine of $300 or imprisonment of 90 days or both.

Section 6. This Ordinance shall be recorded in the book kept for that purpose and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 17th day of November, 1992.

ATTEST:

/\ /
/\ J. V. Blancq, County Clerk

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

/\ /
/\ Rufus Choate, Chairman

/\ /
/\ Carl Livingston, Member

/\ /
/\ Hugh B. McKeen, Jr., Member
AN ORDINANCE PROVIDING FOR EMERGENCY WATER MANAGEMENT

WHEREAS, it is important to the citizens of Catron County to protect and enhance watersheds and groundwater recharging areas for our health, safety, and environment; and,

WHEREAS, emergency situations can threaten the health and well-being of the Citizens of Catron County.

INTENT

The Citizens of Catron County consider infringing on private property or water rights a serious action and therefore only grant the power of eminent domain to the County Commission for the establishment of Critical Water Areas under the most dire and pressing emergencies. Even then, the desire is there to ensure that any such designation be carried out at the Local Basin level. The concern goes even further to require that the question of sustaining the designation must go to the people for a vote.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF COUNTY OF CATRON:

Section 1. Definitions as used in this ordinance.

a. “election” means: Any primary, general, or Local Basin Water Advisory Board election.

Section 2. Critical Water Area Designation.

a. Critical water areas shall only be created when the long-term health and safety of citizens of Catron County can be determined to be in immediate danger due to diminished water supply or water quality.

b. Declarations shall only be enacted by unanimous vote of the Local Basin Water Advisory Board.

c. Declarations of critical water areas shall go into effect immediately and remain in effect until the next scheduled election unless rescinded by the Local Board.

d. The County Commissioners shall cause to be initiated a referendum for any critical water area established. A majority vote of two-thirds of the Local Basin registered voters is required to sustain the creation or change a critical area designation. Should the designation fail to be sustained in the referendum, it shall immediately be suspended.

e. Upon the receipt of a petition to change a critical water area, bearing the signatures of 10% (ten percent) of the registered voters of a Local Basin, the County Commissioners shall cause to be created a ballot question at the next election.

f. Just compensation and due process shall be guaranteed for any diminishing or loss of water rights, other property or values thereof that result from the designation of a critical water area.

g. During periods of drought or other emergencies, the WAS and the Local Boards shall work closely with the State Engineer and other agencies to ensure availability of water to critical needs. These shall include in this order of priority, but not
be limited to, human consumption, agriculture, and wildlife. All emergency management actions shall be subject to notice to the Board of Commissioners of Catron County.

Section 3. If any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

Section 4. Conviction of violation of this Ordinance may carry a fine of $300 or imprisonment of 90 days or both.

Section 5. This Ordinance shall be recorded in the book kept for that purpose and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 17th day of November, 1992.

ATTEST:

/s/
Rufus Choate, Chairman

/s/
J. V. Blancq, County Clerk

/s/
Carl Livingston, Member

/s/
Hugh B. McKeen, Jr., Member
STATE OF NEW MEXICO
CATRON COUNTY
RESERVE, NEW MEXICO 87830

ORDINANCE 011-92

AN ORDINANCE PROVIDING FOR THE PROTECTION OF RIGHTS TO AND USES OF WATER

WHEREAS, the Citizens of Catron County by their nature adhere to and demand democratic participation in their government; and,

WHEREAS, the citizens of Catron County expect full compliance with the New Mexico and U.S. Constitutions and the laws and regulations promulgated thereunder; and,

WHEREAS, Federal agencies are, in accordance with Federal land management laws, to ensure that their planned actions consider and coordinate with the Catron County Water Plan.

WHEREAS, the ownership of water rights and the expectancy that the water, derived from the beneficial use associated with that right, is free of introduced contaminants are considered basic civil rights by the Citizens of Catron County.

WHEREAS, the protection of existing water rights and water uses within the County is of primary importance to the County’s economic and cultural well-being.

INTENT

The intent of this Ordinance is to create a mechanism that citizens can use to enforce their rights to: 1) A supply of water equal to the amount appropriated under the laws of the State of New Mexico, and; 2) Expect that water will be free of introduced contaminants.

This approach is designed to limit the use of county police power to protection of private water rights from third parties and acts where criminal intent is alleged in restricting the transfer or uses of water or introducing contaminants to ground or surface waters.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF COUNTY OF CATRON:

Section 1. The County Commission shall use all means available to oppose the involuntary restriction of water rights or use within the county.

Section 2. No person shall fraudulently restrict or nullify water rights under color of law.

Section 3. No person using Federal appropriations or grants nor Federal agent shall transfer water rights, change the use of water or nullify water rights without prior coordination with the Catron County Commission.

Section 4. The County Commission shall review or cause to be reviewed changes in water use to determine if there is no adverse impact to the historical, customary and cultural use retained by the citizens of the County.

Section 5. The County Commission shall act immediately to initiate criminal actions upon the complaint of one or more affected persons who allege criminal acts that threaten their lawful use of water rights or result in the introduction of contaminants into surface or ground waters.

Section 6. No person shall contaminate ground or surface water. The contamination of ground or surface water shall be considered trespass and each individual affected shall constitute one count.
Section 7. If any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

Section 8. Conviction of violation of this Ordinance may carry a fine of $300 or imprisonment of 90 days or both.

Section 9. This Ordinance shall be recorded in the book kept for that purpose and shall take effect in accordance with law.

PASSED, APPROVED, AND ADOPTED this 17th day of November, 1992.

ATTEST:

/s/ J. V. Blancq, County Clerk

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

/s/ Rufus Choate, Chairman

/s/ Carl Livingston, Member

/s/ Hugh B. McKeen, Jr., Member
AN ORDINANCE PROVIDING FOR THE IMPLEMENTATION OF THE CATRON COUNTY COMPREHENSIVE LAND USE & POLICY PLAN THROUGH ESTABLISHMENT OF THE LIVESTOCK, FARMING, TIMBER, WILDLIFE, MINING, AND RECREATION/BUSINESS COMMITTEES.

WHEREAS, the Board of County Commissioners on the 1st day of September, 1992 did by Resolution No. 005-93 adopt the Catron County Comprehensive Land Use & Policy Plan (Comprehensive Plan); and,

WHEREAS, Chapter Four of the Comprehensive Plan calls for creation by ordinance the Livestock, Farming, Timber, Wildlife, Mining, and Recreation Committees (herein after inclusively referred to as committees) with certain responsibilities and structural requirements.

INTENT

The Committees are intended to facilitate the implementation of the Comprehensive Plan. The Committees shall ensure compliance with County ordinances, State and Federal laws and the will of the people of Catron County.

NOW, THEREFORE BE IT ORDAINED BY THE GOVERNING BODY OF THE COUNTY OF CATRON:

Section 1. Structure common to all Committees.

A. Each Committee shall meet once every three (3) months or more as needed.

B. Actions of each Committee shall be by majority vote.

C. At the first meeting of the new term the members shall elect a Chairman, Vice-Chairman, and Secretary. In the absence of the Chairman, the Vice-Chairman shall chair meetings and perform the functions of the Chairman.

D. Members shall serve without pay. The Board of County Commissioners may approve the payment of per diem and mileage for members to attend meetings of the committee or to secure or present information for committee purposes.

E. All Committee meetings shall be conducted in accordance with the “Open Meetings Act” and he Secretary shall take minutes and cause the same to be made available to the public.

F. Attendance is required of members of each committee for no less than six (6) of each eight (8) consecutive meetings of their respective committee.
G. Failure to meet member requirements of non-attendance is cause for removal.

H. Committee members shall serve four (4) year terms and shall serve until their successors are duly elected and notice thereof is made to the Board of County Commissioners.

I. Terms of committee membership shall be staggered so that approximately one-half of the members of each committee have their terms expire on alternate two year periods.

J. Upon death, resignation, or removal of a committee member the committee shall appoint a member to serve out the term of the departed member.

K. The Chairman of each committee shall serve as the regular member of the Land Planning Committee.

L. Each committee shall be responsible to appoint an alternate to vote at Land Planning Committee meetings when the regular member cannot attend.

M. The County Manager and the County Extension Agent shall be ex-officio members of all committees.

**Section 2. Duties of the Committees.**

A. Each committee shall be responsible to create working manuals appropriate to the committee purposes.

B. The Committees shall be responsible for monitoring proposed actions, legislation, and regulations for compliance with the Comprehensive Plan, Catron County ordinances, potential takings of property rights, or infringements on the customs, culture or economic stability of the county.

C. The Committees shall advise the Board of County Commissioners and the public on proposed actions legislation and regulations that may impact agriculture issues and uses in Catron County.

D. Each committee shall be responsible for drafting recommendations to the Board of County Commissioners and reporting the activities of the committee to the Commission.

E. The Committees shall open and maintain communications with, but not limited to State, Federal, and local agencies

F. The Committees shall, as appropriate to each committee create and maintain range, timber, soil, mineral, wildlife resources, and other data bases for Catron County. They shall acquire, develop, and synthesize alone or in coordination with other government agencies including but not limited to the following: maps, overlays, computer software, natural resource and socio-economic surveys, studies, and data. This information shall be made available to the public.
G. The Committees shall sponsor symposiums, school presentations, workshops, and any other projects that aid county residents in understanding the county’s resources.

H. The committees along with the County Manager or Commission Administrative Assistant may administer development or planning contracts appropriate to the function of the particular committee.

I. The Committees shall be available to mediate or arbitrate any dispute over agriculture uses. The decision by a committee shall not be binding on either party of a dispute unless the parties agree to and request binding arbitration. Parties to a dispute may imitate a call to mediate or arbitrate by contacting any member of a Committee. Upon notification, the Chairman of the Committee shall call a meeting of the Committee or Subcommittee in on less than two (2) weeks and more than three (3) weeks to hear the dispute.

J. Secretaries of the Committees shall keep and provide for public inspection minutes of all meetings and forward said minutes to the County Manager.

K. The Committees shall thoroughly review and discuss this Ordinance at the first meeting of incoming members.

L. The Committees shall perform other duties as may be assigned by the Board of County Commissioners.

Section 3. Transitional Provisions.

A. The Catron County Board of County Commissioners shall appoint Interim Committees to carry out the duties described to this Ordinance for the Committees.

B. The Interim Committees shall be composed of no less than three (3) members representing all areas of the County.

C. The Interim Committees shall serve until the selection for the Committees are carried out in accordance with this Ordinance.

D. The Interim Committees shall recommend the method of selection and additional structure requirements for their respective committees within three (3) months of appointment.

Section 9. If any provision of this Ordinance or the application thereof is held invalid, such invalidity does not affect any other provision of this Ordinance which can be given effect without the invalid provision or application, and to those ends the provisions of this Ordinance are severable.

Section 10. This ordinance shall be recorded in the book kept for that purpose and shall take effect in accordance with law.
PASSED, APPROVED, AND ADOPTED this 19th day of January 1993.

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

ATTEST:

/s/ _________________________________
John Hand, Member

/s/ _________________________________
Sharon Armijo, Clerk

/s/ _________________________________
Carl Livingston, Member

/s/ _________________________________
Hugh B. McKeen, Member
CATRON COUNTY COMPREHENSIVE LAND PLAN POLICY TO BE ADDED TO ORDINANCE 001-93

WHEREAS, the Catron County Comprehensive Land Plan was created to describe and protect our culture, customs, private property rights, and economy; and, 

WHEREAS, the Catron County Comprehensive Land Plan was created to protect the rights and liberties of citizens from intrusions by governments and identify ways in which private property rights and free markets can be used to achieve economic and social property for its citizens; and, 

WHEREAS, Catron County is a public unit of local government and a 3 member elected Board of Catron County Commissioners as its chief governing authority; (by New Mexico statutes misc. power of counties NM STAT Ann 4-36-1 to 4-36-7); and, 

WHEREAS, the Catron County Board of Commissioners primary responsibility is to protect the health, safety, and wellbeing of Catron County Citizens; and, 

WHEREAS, the Catron County Board of Commissioners is charged with supervising and protecting the tax base of the county and establishing comprehensive land use plans (including, but not limited to the General Plan) outlining present and future authorized uses for all lands and resources situated within the county (NM STAT Ann 4-37-1 to 4-37-13) 1978 (also see Article 36); and, 

WHEREAS, Catron County is engaged in the land use planning process for future land uses to serve the welfare of all the citizens of Catron County; and, 

WHEREAS, Catron County’s best management practices change as new issues and technology are discovered, the land plans are living documents and are enhanced as issues arise. 

WHEREAS, Catron County is comprised of approximately twenty-five percent (25%) privately-held lands with the balance of lands and/or resources publicly owned, managed, and/or regulated by various federal and state agencies; and, 

WHEREAS, the citizens of Catron County historically earn their livelihood from activities reliant upon natural resources critical to the economy of Catron County; and, 

WHEREAS, the economic base and stability of Catron County is largely dependent upon commercial and business activities operated on federally and state owned, managed, and/or regulated lands that include, but are not limited to recreation, tourism, timber harvesting, mining, livestock grazing, and other commercial pursuits; and,
WHEREAS, Catron County, it’s citizens, schools, and services are dependent upon healthy natural resources, properly functioning, which is best achieved through multiple use management; and,

WHEREAS, due to social, economic, and environmental changes in Catron County since the plan was codified; and,

WHEREAS, Catron County has determined that the changes require updating; and,

WHEREAS, Catron County deems it necessary to emphasize coordination due to the mixed jurisdictions and responsibilities over the various natural resources in the county; and,

WHEREAS, provisions in the Federal Land Policy and Management Act, National Forest Management Act, Resource Planning Act, the National Environmental Policy Act, and other federal and state management and planning regulations provide for Catron County to participate and have a strong voice in the planning and decision making process associated with managing the Catron County Natural resources, environment, and public lands and activities in adjoining county’s activities that could have an effect on the county and its residents; and,

WHEREAS, Catron County has developed an Interim Land Use Plan, a Natural Resource Plan, Water Plan, Travel Management Plan, and several other plans which shall be used as reference materials for this policy and the Catron County Public Lands Policy; and,

WHEREAS, the Government Lands Policy gives the basic issues and management plans for the county.

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Catron County, New Mexico that be and is ADOPTED:

Section 1: The Catron County revised Plan reiterates and declares that the primary purpose of the Plan is to protect our culture, customs, private property rights, and economy of Catron County; and,

Section 2: The revised Plan constitutes policy for the Comprehensive Land Plan for Catron County.

Section 3: The revised Plan shall be construed as the primary policy for guiding resource, environmental, and land planning, management, and guidance for the conservation and use of the County’s natural resources.

Section 4: Catron County current Comprehensive Land Plan, Catron County Community Wildfire Protection Plan, Water Plan, Travel Management Plan, and other related plans, ordinances and resolutions shall be incorporated by reference into this policy.

Section 5: Catron County Board of County Commissioners shall pursue intergovernmental coordination with state and federal resource and environmental agencies pursuant to federal statutory and regulatory coordination requirements and County requirements to improve the implementation of natural resource management.
Section 6: Catron County Board of County Commissioners shall pursue equal partnerships and intergovernmental coordination with all local government entities, including but not limited to local conservation districts, community ditch associations, the Village of Reserve for improving the implementation of natural resources management.

WHEREAS, this policy shall take precedence over other land use plans but shall keep those plans for references with changes to be made as time deems forth.

DONE, ESTABLISHED, AND APPROVED this 6th day of January, 2010 in regular session by the Board of County Commissions, at Reserve, Catron County, New Mexico.

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

ATTEST:

/s/ ________________________________
Ed Wehrheim, Chairman

/s/ ________________________________
Sharon Armijo, Clerk

/s/ ________________________________
Allen Lambert, Member

/s/ ________________________________
Hugh B. McKeen, Member
AN ORDINANCE REVISING THE CATRON COUNTY ENVIRONMENTAL PLANNING & REVIEW PROCESS & REPEALING ORDINANCE NO. 006-92

WHEREAS, the Catron County Comprehensive Land Use & Policy Plan sets forth the general declaration of the County’s customs, culture, and economic stability, and specifies the legal framework for land and environmental planning and mandates that an Environmental Plan ordinance be developed; and,

WHEREAS, New Mexico statutes provide for counties to develop ordinances for controlling not only private fee property but also for regulating uses on federal lands;¹ and,

WHEREAS, Catron County has been granted by the state legislature “‘Home Rule’ powers” through the Home Rule Validation Act, which allows New Mexico counties to develop land use, resource management, and environmental planning resolutions and ordinances necessary to “secure the public health, safety, convenience, and welfare;”² and,

WHEREAS, the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ),³ the Intergovernmental Cooperation Act, and Presidential Executive order 12372 provide mechanisms for intergovernmental coordination and joint environmental planning; and,

WHEREAS, NEPA and the CEQ regulations⁴ require assessment of the direct, indirect, and cumulative effects of federal agency decisions on the environment (including ecological, aesthetic, historic, cultural, economic, social, and health factors); ⁵

WHEREAS, the Catron County Commission adopted Catron County Ordinance No. 006-92 which established the Catron County Environmental Planning and Review Process; and,

WHEREAS, the Catron County Commission has found that Catron County Ordinance No. 006-92 is unnecessarily complex and is in need of streamlining,

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF CATRON COUNTY:

1. That Catron County Ordinance No. 006-92 is hereby repealed, and

2. That this revised Environmental Planning and Review Process Ordinance is hereby established and implemented to protect the nature resources of Catron County for future generations as well as protect the economic and community (customs and cultures) stability for present and future generations.

¹ 4-37-2 NMSA 1978
² 4-37-13 NMSA 1978
³ 40 CFR § 1506.2.
⁴ 40 CFR § 1506.2.
⁵ 40 CFR § 1508.8.
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Section 1. Intent

The intent of the Catron County Commission, in adopting this ordinance, is to promote the stated purposes and philosophy of the National Environmental Policy Act (NEPA) which is:

“To declare a national policy which will encourage the productive and enjoyable harmony between man and his environment; to promote efforts which will eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the national…”

The intent, therefore, of this ordinance is to create a Catron County environmental planning process which will:

1. Ensure the protection of not only the physical environment but also the customs, culture, and economic stability of Catron County.
2. Require that federal agencies abide by existing laws which require them to conduct joint planning with Catron County for proposals on federal land and state lands within the County.
3. Ensure full mitigation of adverse effects of environmental decisions to Catron County and its citizens.

Section 2. Environmental Policy

It is the policy of the Catron County Commission that all federal agencies proposing to undertake or engage in any planning activities which will significantly affect the quality of both the physical and socioeconomic environment in Catron County, shall henceforth comply with the requirements of:

- The Catron County Environmental Planning and Review Process Ordinance.
- The National Environmental Policy Act (NEPA).
- The Council on Environmental Quality (CEQ) regulations.
- The National Forest Management Act (NFMA) and supporting regulations.
- The Federal land policy and Management Act (FLPMA) and supporting regulations.
- All other federal, state, and county laws, regulations, and ordinances relating to management of the human and physical environment.

Section 3. Objectives

The Catron County Commission has identified the following primary objectives for environmental planning and review within the County:

- To disclose to federal and state decision makers and the public the significant environmental effects of proposed government actions on the physical environment and the customs, culture, property rights, and economic stability of Catron County.
- To identify means to mitigate or eliminate adverse impacts to both the physical and socioeconomic environment.
- To prevent injury to both the physical and socioeconomic environment by requiring implementation of feasible alternatives or mitigation measures.

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6 42 USC § 4321
To require intergovernmental coordination and joint planning in the environmental planning and review process in Catron County.

To encourage and enhance public education and participation in the environmental review process.

To plan and manage natural resources consistent with environmental and community standards.

Section 4: Joint Planning

Catron County’s economy is dependent upon federal and state lands to a major extent. It is therefore advantageous that state and federal agencies work closely together with Catron County to jointly determine the benefits, impacts, and costs of resource plans and decisions. By pooling local, state, and federal resources, the general public will be better informed about resource decisions. Joint planning and coordination will also provide an unique opportunity to cooperatively develop realistic mitigation alternatives for redressing negative environmental, social, and economic impacts.

The procedures and guidelines of this Catron County Environmental Planning and Review Process ordinance shall be consistent with the requirements of federal and state laws and their implementing regulations. Furthermore, in the event that environmental assessment documentation is required by both the Catron County Ordinance and MEPA, environmental impact assessment documentation shall be coordinated and jointly prepared by the County Commission and the federal agency.

The legal authority for this ordinance is derived from state and federal statutes as defined in the Catron County Comprehensive Land Use & Policy Plan. The joint intergovernmental planning and coordination requirements of this ordinance are consistent with the requirements of NEPA CEQ regulations as follows:

- Joint Environmental Planning
- Joint Environmental Research
- Joint Public Hearings
- Joint Preparation of Environmental Documents

A. Joint Environmental Planning

Under the NEPA and CEQ requirements for coordinated resource project planning, the Catron County Comprehensive Land Use and Policy Plan specifically requires that a coordinated planning and review process be established for all federal actions and plans within Catron County.

Upon invoking the joint impact assessment process, the County Commission shall, as it deems necessary, enter into a Memorandum of Agreement (MOA) for joint planning and preparation of joint impact assessment documents, including procedures for designating Catron County as a joint lead agency in the federal environmental assessment process in accordance with CEQ regulations. The MOAs shall be in full conformance with the requirement of this ordinance and NEPA.

All federal agencies shall notify the Catron County Commission immediately upon initiation of any proposal or planning activity that may lead to a proposal affecting the human environment in Catron County. At the first Commission meeting following notification, the County Commission shall make a formal decision as to whether to require joint planning and/or documentation in accordance with the impact assessment process detailed in this ordinance, and so

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7 Catron County Comprehensive Land Use & Policy Plan, Part II, Chapter 1, and Appendix 1.
8 40 CFR § 1506.2(b).
9 40 CFR § 1506.2(c).
10 As defined in 40 CFR §1508.14.
notify the initiating agency(s).

In Catron County, joint planning shall be conducted in the following sequence to ensure that all planning and proposals are formulated and/or evaluated against appropriate and realistic objectives:

1. Establish management objectives in terms of people values for the site impacted. These can, in part, be determined though review of federal, state, and county land plans. They may need to be refined and defined specific to the site impacted. This definition of objectives must include the commodity and amenity outputs or production thresholds needed to achieve the values the citizens of the County have determined to be important or necessary to their well being.

2. Design “Desired Future Conditions (DFC)” to best meet the above determined management objectives within the physical capabilities of the environment.

3. Evaluate all proposals against achieving the DFCs and management objectives established for the area.

4. Utilize an ecosystem management approach to evaluate any single proposal. That is, all uses, management objectives, and environmental capabilities will be considered.

B. Joint Environmental Research

The Catron County Commission hereby states its intent to take advantage of the Joint Environmental Research and Studies clause of NEPA\(^\text{11}\) by entering into joint pilot research and studies with the federal agencies. The purpose of the joint pilot research and studies will be to develop a coordinated approach to resource management through:

1. Promoting understanding of “like values” or the customs and culture of Catron County.

2. Identifying outputs/products requirements for improving resource conditions and trends, and for protecting the community and economic stability of the County.

3. Developing landscape descriptions for DFCs, including standards and monitoring methods.

4. Coordinating the development of resource management approaches for preferred management alternatives in the planning process.

C. Joint Public Hearings

Joint public hearings shall be conducted “…to the fullest extent possible” in accordance with NEPA requirements.\(^\text{12}\)

D. Joint Preparation of Environmental Assessment Documentation

In accordance with NEPA requirements\(^\text{13}\) and Section 5 of this ordinance, federal agencies shall Work jointly with Catron County to conduct environmental impact analyses of the proposal and

\(^{11}\) 40 CFR § 1506.2.b.2
\(^{12}\) 40 CFR § 1506.2.b.3
\(^{13}\) 40 CFR § 4331(B)(2)(4), § 4332(2)(C)(I)-(V) and (2) (G), 40 CFR § 1502.14, and 40 CFR §1506.2(c).
alternatives for both the physical and the socioeconomic environment.

Section 5. Joint Impact Assessment

This section provides the specific and detailed methods which shall be followed in a coordinated way to conduct intergovernmental joint environmental assessments. There shall be three classes of environmental assessment documentation which may be required by the Catron County Commission: Informal letters, Initial Environmental Assessment Reports, and Environmental Impact Reports.

A. Preliminary Review—Informal Letters

Informal letters shall be used to document preliminary discussions and decisions of proposals categorically excluded from NEPA assessments, and for planning activities establishing or refining management objectives, desired future conditions, or identifying or rejecting future management needs or proposals. The activities appropriate to Informal Letters are usually those proceeding formal proposals requiring NEPA assessment.

B. Initial Environmental Assessment Report (IEAR)

An IEAR shall be prepared at the request of the Catron County Commission when there is an indication that an effect on the environment (physical, social, cultural, property right, and/or economic factors) will result from proposed federal agency(s) actions. The IEAR is similar to NEPA environmental assessment documentation. The IEARs must be consistent with the Catron County Comprehensive Land Use & Policy Plan. There is no standard format required, but the IEARs should include the following information:

- Proposal description.
- Environmental setting.
- Local citizens values and management objectives.
- Production thresholds for the area(s) involved.
- Potential environmental impacts.
- Alternatives (if appropriate).
- Mitigation measures.
- Consistency of the proposal with the Catron County Comprehensive Land Use & Policy Plan.

C. Environmental Impact Report (EIR)

Based on findings documented in an IEAR, the Catron County Commission shall make its determination whether to require a more formal and detailed EIR. The EIR is similar to the NEPA environmental impact statement documentation. The EIR shall be developed jointly by the federal agency(s) and by Catron County, as a joint lead agency, as provided by NEPA CEQ regulations. The “affected environment” shall encompass the human environment as described in the NEPA CEQ regulations:

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14 40 CFR § 15013.
16 40 CFR §1506.2(v) and (c).
17 40 CFR § 1502.15.
“Human environment” shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment... When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.”

Since the majority of the land is Catron County is federal land, and the County’s major industries—livestock, timber, and recreation—are tied to that land, then all “economic or social and natural or physical environmental effects” are interrelated.

The purpose of an EIR is to:

1. Identify the significant effects of a proposal on the environment (natural, social, cultural, property rights, and economic factors).

2. Identify reasonable alternatives to the proposal when there is a negative affect, especially on the health, safety, and livelihood (economic welfare) of County Citizens.

3. Indicate the manner in which those significant effects can be mitigated or avoided.

The EIRs will assess cumulative impacts along with the “direct effects and their significance...(and) indirect effects and their significance” of proposed actions in accordance with NEPA CEQ regulations. Also, in accordance with NEPA requirements, the EIRs shall consider all reasonable alternatives to the proposed action with the goal of finding the alternative with the least adverse environmental impacts in relation to its benefits.

Information developed in individual EIRs shall be incorporated into a database which can be used to reduce delay and duplication in preparation of subsequent environmental impact reports.

The contents of the EIRs shall be as follows:

**Cover Sheet.**

**Summary of Environmental impacts.**

**Table of Contents.**

1. Purpose and Need for the Action.
2. Description of the Proposal.
3. Affected Physical & Socioeconomic Environment.
4. Management Objectives for the Affected Area.
5. Desired Future Conditions for the Affected Area.
   a. Assessment of Impacts on the Physical Environment.
   b. Assessment of Impacts on the Social Environment (culture, governance, schools).
   c. Assessment of Impacts on the Economic Environment (industries and customs).
   d. Assessment of Impacts on Private Property Rights (takings).
   e. Assessment of Impacts of Cumulative Effects.

7. Alternatives.

8. Mitigation Plans.

9. Public Involvement Requirements.

10. Time Schedules for Completion of the Environmental Impact Report

**Appendices**

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19 42 USC § 1508.7 and §1508.8.
1. **Purpose and Need for Action:** A brief statement of the underlying purpose and need which has brought about the proposal and the alternatives.

2. **Description of the Proposal:** A summary description of the proposal. Where EIRs are required for allotment management plans, the proposal and alternatives will be grazing management concepts and application of best management practices, and not specific technical management plans.

3. **Affected Physical & Socioeconomic Environment:** The environmental setting, both physical and socioeconomic, which will be affected or created by the proposed alternatives.

4. **Management Objectives for the Affected Area:** The management objectives for the planning process which take into account people values, socioeconomic needs, and production thresholds necessary for realization of the values important to people of the county. These management objectives and production levels will then become the goals and evaluation criteria against which all proposals and alternatives shall be evaluated.

   The management objectives shall be drawn from reviews of the Catron County Comprehensive Land Use and Policy Plan and various federal and state land management plans. Since most of these land plans are programmatic and broad in scope, the management objectives may have to be refined specific to the affected area or site.

5. **Desired Future Conditions for the Area:** A description of the vegetation mosaic or landscape that best accomplishes the desired management objectives, within the physical capabilities of the natural resources. Since different landscape descriptions will produce different levels of outputs, Catron County must be involved in designing landscape descriptions to best preserve the customs, culture, and economic stability of County citizens when choices have to be made between conflicting management objectives through public involvement. Limitations and/or special preferences for best management practices and management tools to use in achieving the landscape description will also be identified in this section.

6. **Environmental Impacts:** A concise description showing the affects of the proposal on both the physical and socioeconomic environment, including current and desired future conditions of the area.

   a. **Assessment of Impacts on the Physical Environment:** A description of any effects on the County’s natural resource assets and environmental quality to include effects on:

      1) Forest and timber resources.
      2) Range resources.
      3) Dry land crops.
      4) Watershed resources.
      5) Private surface and ground water rights and irrigated cropland.
      6) Environmental quality: air, water (including surface and ground water, energy, soils, etc.).
      7) Integrated resource planning and management in which county private parties and/or public interests are involved.
      8) Multiple use, sustained yield, and range resource laws.
      9) Private investments and costs into public land resources.
10) The “productive and enjoyable harmony between man and his environment.” The plan must “stimulate the health and welfare of man…and support diversity and variety of individual choice” in accordance with the NEPA mandate.  

b. **Assessment of Impacts on the Social Environment:** A description of any effects on Catron County’s culture, governance, schools, and other local programs including effects on:

1) The culture of Catron County due to population loss.
2) The culture of Catron County from possible limitations and restrictions on cultural beliefs and practices, and maintenance of cultural and community cohesion and kinships.
3) Cultural and community aesthetics, including historical sites, natural resource vistas, river ways, and landscapes.
4) The County’s ability to protect the health, safety, and social, and cultural well-being of its citizens.
5) The County’s ability to promote environmental values and resource protection and development.
6) The County’s ability to finance public programs and services through bonding, lending, and other financing mechanisms.
7) Local governments (e.g., villages, towns, and county) schools from identified tax revenue losses.
8) Local emergency medical services, law enforcement, fire protection, and nuisance abatement.
9) The local government infrastructure, including transportation, community water systems, (including those provided through irrigation and reclamation districts), and landfill services.
10) Local community well-being, stability of governance, and the education of children from cumulative and long-term impacts.

c. **Assessment of Impacts on the Economic Environment:** A description of any effects on the County’s economy, customs, services, and businesses, to include effects on:

1) Private investment backed expectations.
2) The economic value of private water rights and real property.
3) Direct, indirect, and cumulative employment.
4) The base industries of timber, cattle, and mining—specifying unit cost effects (e.g., economic value of AUMs, MMBFs, etc.).
5) Local businesses directly and indirectly related to the resource decisions or plans.
6) Housing, real estate values, and residential energy needs.
7) Thresholds for business demand and markets.
8) Local community well-being, stability, and ability to maintain current and future debt services by long-term and cumulative impacts.

d. **Assessment of Impacts on Private Property (Takings):** A description of any effects on property rights and protectable interests in the County. In addition to the requirements above, there shall be an evaluation of the impacts on property rights, using the Presidential Executive order No. 12630, entitled “Government Acts and Interference with Constitutionally Protected Property Rights,” and the Attorney General’s guidelines entitled “Evaluation of Risks and Avoidance of Unanticipated

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21 42 USC 4321.
Takings.” In addition, the Catron County Comprehensive Land Use &Policy Plan mandates that the following tests or criterion be used in assessing possible taking of private property rights:

1) Whether the proposal constitutes an actual physical intrusion or actual taking of private property.
2) Potential for loss of economic value or investment backed expectation.
3) Related effects on custom and culture.
4) Whether the agency action conforms to constitutionally protected property rights and commonly accepted notions of fairness and due process.

\[ e. \text{ Assessment of Cumulative Effects:} \text{ An analysis of the effects of planning decisions to ensure that there are no cumulative, long-term effects on the County’s economy, customs, culture, services, and businesses.} \]

Because the monitoring and maintenance efforts of federal agencies are inadequate to effectively measure the cumulative and long-term effects of their proposals, these impacts remain unmeasured in any sense that will permit remedial action. This is especially true for the impacts on multiple uses of natural resources and economic stability. To provide a necessary tool for addressing these issues, Catron County shall develop and make available local economic studies containing unit cost and other indices for the purpose of measuring economic impacts.

One of the primary reasons for enacting the procedures contained in this ordinance and the commitment of county resources for the development of accurate data is to assist federal agencies to systematically identify both present and cumulative impacts associated with their actions and to develop effective and feasible mitigation measures and alternatives so that these adverse impacts may be eliminated or substantially reduced or compensated.

\[ 7. \text{ Alternatives:} \text{ A description of the environmental impacts of the proposal and the reasonable alternatives in comparative form which will provide a clear basis for choice among the options by the decision makers and the public (in accordance with NEPA CEQ regulations).}^{22} \text{ This section will:} \]

\[ a. \text{ Provide an objective evaluation of all reasonable alternatives and a discussion of why any alternatives were eliminated.} \]

\[ b. \text{ Provide a detailed description of each alternative, including the proposal, so that reviewers may evaluate their comparative merits.} \]

\[ c. \text{ Include reasonable alternatives not within the jurisdiction of the lead agency.} \]

\[ d. \text{ include the alternative of no action.} \]

\[ e. \text{ Identify the preferred alternative or alternatives.} \]

\[ f. \text{ Include appropriate mitigation measures not already included in the mitigation plan.} \]

\[ 8. \text{ Mitigation Plan:} \text{ A mitigation plan which will provide detailed and realistic alternatives in accordance with NEPA.}^{23} \text{ It is the policy of the Catron County Commission that federal agencies shall not approve proposals if there are feasible alternatives or mitigation measures available which would, if implemented, reduce or eliminate significant impacts to both the physical and socioeconomic environment. The mitigation plan shall:} \]

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23 40 CFR § 1508.20.
a. Identify each impact which the mitigation measures is intended to address.

b. Identify the party or agency responsible for the implementation and monitoring of the proposed mitigation measure.

c. Specify the following for each mitigation alternative (in accordance with NEPA CEQ regulations):24
   1) How impacts may be avoided altogether by not taking certain actions.
   2) How impacts may be minimized by limiting the degree or magnitude of the proposed action.
   3) How impacts may be rectified through repair, rehabilitation, or restoration of the affected environment.
   4) How impacts may be reduced or eliminated over time through preservation and maintenance actions during the life of the action.
   5) How the agency could compensate for the impact by providing substitute resources of equal economic value.

d. Specify, for each mitigation measure, it:
   1) Legal authority.
   2) Technical feasibility.
   3) Fiscal and economic feasibility.
   4) Social, cultural, and political feasibility.

e. Provide a mitigation monitoring plan, which is based on specific objectives and performance standards, to ensure implementation of mitigation measures during the life of the proposal.

f. Provide feedback to the County Commission from the mitigation monitoring process.

9. Public Involvement Requirements: During the preparation of an analysis for a decision document, or amendment to a proposal, Catron County and the federal agencies shall jointly provide opportunities for the involvement of Catron County citizens, local governments, schools, utility companies, civic, or other community groups, and all economic segments within Catron County. This shall be done through public hearings and other means the Catron County Commission deems appropriate. The joint public involvement program shall have the following elements.25

   a. Federal agencies shall coordinate joint public involvement planning, programs, and processes with the Catron County Commission, pursuant to this section of the Catron County Environmental Planning and Review Process Ordinance, and in accordance with the Council on Environmental Quality regulations.26

   b. The public involvement program shall include objectives to:
      1) Identify the management objectives, affected parties, and opportunities of the proposed action.
      2) Apprise land owners of regulations and decisions that may affect their property rights.

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24 40 CFR § 1508.20.
25 40 CFR § 1506.6.
26 40 CFR §1502.(b)(3).
3) Provide public opportunities to evaluate alternatives and to participate in choosing the preferred alternative.
4) Create an atmosphere in which conflicting demands for resources and uses can be resolved without destabilizing community economic, social, and/or cultural fabrics.

10. **Time Schedules for Completion of the EIR:** Estimated time schedules shall be developed for all phases of the EIR. The time schedules shall be developed early in the process for each phase of the assessment, including issuance of a final decision.

**Section 6. Implementation of the Environmental Planning & Review Process**

In additional to the procedures contained in this ordinance, the Catron County Commission shall:

1. Adopt such administrative rules and oversight guidelines deemed necessary to carry out this ordinance.
2. Establish an oversight committee or other organization to assure that the intent and purposes of the procedures established by this ordinance are maintained.
3. Develop such environmental and resource related cooperative agreements, memorandums of understanding, joint policy statements, and joint letters of intent with appropriate state and federal agencies, so that the goals and objectives of this ordinance and the Catron County Comprehensive Land Use & Policy Plan may be carried out.

**Section 7. Severability**

If any section, subsection, sentence, clause, phrase, or portion of this ordinance or the application thereof to any person or circumstances is declared invalid or unconstitutional by the decision of a court of competent jurisdiction, the remainder of this ordinance shall be severed therefrom and shall remain in full force and effect.

**Section 8. Recording & Authentication**

This ordinance shall be recorded in the books kept for that purpose and shall be authenticated by the signature of the County Clerk and shall take effect in accordance with the law.

**PASSED, APPROVED, AND ADOPTED** this 4th day of May, 1993

**BOARD OF COUNTY COMMISSIONERS**
**CATRON COUNTY, NEW MEXICO**

**ATTEST:**

/s/ ______________________________
Car Livingston, Chairman

/s/ ______________________________
Sharon Armijo, County Clerk

/s/ ______________________________
John Hand, Member

/s/ ______________________________
Hugh B. McKeen, Jr., Member
AN ORDINANCE PROVIDING FOR THE IMPLEMENTATION OF THE CATRON COUNTY WATER PLAN AND REPEALING CATRON COUNTY ORDINANCE 007-93

WHEREAS, the Catron County Commissioners, on the 1st day of September, 1992, did by Resolution Number 005-93 adopt, the Catron County Comprehensive Land Use & Policy Plan (Comprehensive Plan); and,

WHEREAS, Part III, Chapter 1 of the Comprehensive Plan calls for creation by ordinance the Catron County Water Advisory Board (WAB) with certain responsibilities and structure requirements, and also provides for Local Water Boards to assist the WAB;

INTENT

The Water Advisory Board and Local Water Boards are intended to facilitate the implementation of the Catron County Water Use Plan. The WAB and Local Water Boards shall ensure compliance with County ordinances, State and Federal Laws and the will of the people of Catron County. There is no intent to vest any authority over privately held water rights in the WAB, Local Water Boards or the Catron County Commission except in case of dire and pressing emergencies.

NOW, THEREFORE BE IT ORDAINED BY THE COUNTY OF CATRON COMMISSION:

Section 1. Structure of the Catron County Water Advisory Board.

a. One member shall be appointed from each Local Water Basin by the County Commission pursuant to the requirements in Section 5b.

b. At the first meeting of the new term, the members shall elect a chairman, vice chairman and secretary. In the absence of the chairman, the vice chairman shall perform the functions of the chairman.

c. The County Manager and immediate past chairman shall serve as ex-officio members.

d. Each Local Water Board shall be responsible for appointing an alternate to vote at WAB meetings when the regular member cannot attend.

e. WAB members shall serve two years terms and shall continue to serve until their successor is appointed.
f. WAB members may serve as officers of a Catron County Water Bank or other appropriate water holding and marketing entity.

g. WAB members may be removed from office by a majority vote resolution of other members directed to the Local Water Board from which the member was appointed. The local Water Board shall have final authority over removal. If the Local Water Board rejects the resolution, the WAB member in question shall serve out his/her term. If the Local Water Board accepts the resolution, it shall appoint another member.

Section 2. Structure of Local Water Boards.

a. Local Water Boards may be appointed by the County Commission or may, at the discretion of the County Commission, be elected by residents of the local basins. In the event the County Commission decides to hold Local Water Board elections, it shall prescribe election procedures.

b. Members of Local Water Boards must be residents and water rights owners in the basin in which they serve.

c. Local Water Board members shall serve two year terms or shall serve until their successors are appointed.

Section 3. Duties of the Water Advisory Boards.

a. The WAB shall create a water rights manual for Catron County.

b. The WAB shall be responsible for monitoring proposed actions, legislation and regulations.

c. The WAB shall advise the County Commission and public on proposed actions, legislation and regulations that may impact water use in Catron County.

d. The WAB and Local Water Boards shall sponsor symposiums, develop school presentations, water right workshops and any other projects that aid county residents in understanding the county's water resources.

e. The WAB and Local Boards shall maintain and expand the geologic, hydrologic and biologic database for Catron County. The WAB shall acquire, develop and synthesize alone, or in coordination with, the Local Boards and other government agencies, the following, including, but not limited to: maps, overlays, computer software, drilling information, water well testing information, flood prone information, and riparian information. This information shall be made available to the public so that water use decisions can be based on good information.

f. The WAB shall be responsible for drafting recommendations to the County Commission and reporting the activities of the WAB to the Commission.

g. The WAB and the Local Water Boards shall be responsible for monitoring compliance with this Ordinance. The WAB and Local Boards shall immediately inform the County Commission of any violation of which they become aware.

h. The WAB of Local Water Boards may be called by the County Commission to review subdivision requests for variances to water supply requirements.
i. The WAB and Local Water Boards shall spend a minimum of 2 hours reading aloud and discussing this Ordinance at the first meeting after its adoption.

j. The WAB and Local Water Boards shall review the Catron County Water Plan regularly, and annually, at the second County Commission meeting in January of each year, report their findings and recommended updates to the Commissioners and the public.

k. The WAB or the Local Water Boards along with the County Manager may administer water development contracts.

l. The WAB shall open and maintain communications with, but not limited to the following: State and Federal agencies, schools, industries and individuals.

m. The WAB or Local Water Boards shall be available to mediate or arbitrate any dispute over water use or appropriation. The decision of a Board shall not be binding on either party of a dispute unless the parties request and agree to binding arbitration. Parties to a dispute may initiate a call to mediate or arbitrate by contacting any member the WAB or their Local Water Board. Upon notification, the Chairman of the WAB or Local Board shall call a meeting of the Board in no less than two weeks and no more than three weeks to hear the dispute.

n. During periods of drought or other emergencies, the WAB and the Local Boards shall work closely with the State Engineer and other agencies to ensure availability of water to critical needs. These shall include, but not be limited to, human consumption, agriculture, and wildlife. All emergency management actions shall be subject to notice to approval of the Catron County Commission.

o. The WAB and Local Water Boards shall meet quarterly or more often if necessary.

p. All WAB and Local Water Board meetings shall be conducted in accordance with the State Open Meetings Act and the Secretary shall take minutes and cause the same to be made available to the public.

q. Board members shall serve without pay. The County Commission may approve the payment of per diem and mileage as deemed appropriate and in accordance with state law.

r. Upon the death, resignation, or removal of a WAB or Local Water Board member, the affected Local Water Board shall appoint a member to serve out the term of the departed member.

s. The WAB shall perform other duties as may be assigned by the Board of County Commissioners.

t. Actions of the boards shall be by majority vote.

Section 4. Catron County Water Banks

a. The WAB or Local Water Boards may cause, by unanimous vote, to be created water banks or other water banks or other water holding or marketing entities under appropriate state laws.
Section 5. Transitional Provisions.

a. The Catron County Commission shall appoint an Interim Water Advisory Board to carry out the duties described in this ordinance for the WAB.

b. The Interim Board shall be composed, as much as practical, of members representing all areas of the county.

c. The Interim WAB shall serve until the Local Water Boards are operational.

Section 6. If any provision of this ordinance or the application thereof is held invalid, such invalidity shall not affect any other provision of this ordinance which can be given effect without the invalid provision or application, and to that end, the provisions of this ordinance are severable.

Section 7. This Ordinance shall be recorded in the Catron County Clerk’s Office and shall take effect in accordance with state law.

Section 8. Catron County Ordinance 007-92 is hereby repealed.

PASSED, APPROVED, AND ADOPTED this 7th day of September, 1993.

ATTEST:

/\s/___________________________
Carl Livingston, Chairman

/\s/___________________________
Sharon Armijo, Clerk

/\s/___________________________
Hugh B. McKeen Jr., Member

/\s/___________________________
John Hand, Member
AN ORDINANCE PROVIDING FOR THE FORMATION OF AND OUTLINING THE DUTIES OF THE CATRON COUNTY LAND PLANNING COMMITTEE

WHEREAS, there is a need for coordination of the activities of the various committees established by Catron County Ordinance 001-93 incidental to the implementation of the Catron County Comprehensive Land Plan;

NOW THEREFORE BE IT ORDAINED BY THE CATRON COUNTY COMMISSION:

Section 1. The Catron County Land Planning Committee is hereby established.

Section 2. Structure of the Land Planning Committee

A. The Land planning Committee shall be composed of the Chairpersons of the Livestock, Timber, Farming, Mining, Recreation/Business and Wildlife Committees, Chairperson of the Water Advisory Board and the Chairpersons of such other committees as may be created by the Commission. The County Manager and the County Extension Agent shall be ex-officio, nonvoting members of the Land Planning Committee.

B. Actions of the Land Planning Committee shall be by majority vote.

C. At the first meeting of the new term, the members shall elect a Chairperson, Vice Chairperson, and Secretary. In the absence of the Chairperson, the Vice Chairperson shall chair the meeting and perform the functions of the Chairperson.

D. Members shall serve without pay. The County Commission may approve the payment of per diem and mileage for members to attend meetings of the committee or to secure or present information for committee purposes.

E. Members must attend six (6) of eight (8) consecutive meetings.

F. Failure to meet membership requirements or nonattendance is cause for removal.

G. Committee members shall serve their terms as prescribed by their respective committee’s term structure.

H. Upon the death, resignation or removal of a committee chairperson, the respective committee shall select, in accordance with their rules, another chairperson to serve on the Land Planning Committee.
I. The vice-Chairman of each committee shall serve as an alternate to the Chairman member on the Land Planning Committee.

Section 3. Duties of the Land planning Committee

A. All committee meetings shall be conducted in accordance with the “Open Meetings Act” and the secretary shall take minutes, ensure that they are made available to the public and the County Manager for filing in the office of the County Clerk.

B. The Land Planning Committee shall be responsible for coordinating the proposed actions and proposed policy statements of the various committees.

C. The Land Planning Committee shall oversee the implementation of the Catron County Commission resolution listing protocols for committee operation.

D. The Committee shall thoroughly review and discuss this ordinance at the first meeting of each year.

E. The Committee shall perform other duties as assigned by the Catron County Commission.

Section 4. Transitional Provisions

A. The Catron County Commission shall appoint interim members to the Land Planning Committee to represent those committees not functioning or without a chairman.

B. The interim committee members shall serve until their respective committees are formed and chairpersons selected.

Section 5. If any provision of this ordinance or the application thereof is held invalid, such invalidity shall not affect any other provision of this ordinance which can be given effect without the invalid provision or application, and to that end, the provisions of this ordinance are severable.

Section 6. This ordinance shall be recorded in the Catron County Clerk’s office and shall take effect in accordance with state law.

PASSED, APPROVED, AND ADOPTED this 1st day of February 1994.

ATTEST:

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO

/s/         
Carl Livingston, Chairman

/s/         
Sharon Armijo, Clerk

/s/         
Hugh B. McKeen Jr., Member

/s/         
John Hand, Member
PROHIBITING RELEASE INTO THE WILD OF CERTAIN GENERA

WHEREAS, the Livestock Industry is vital to the Catron County economy; and,

WHEREAS, predators are drastically destructive of livestock and deleterious to the livestock industry,

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE COUNTY OF CATRON:

Section 1. Within the boundaries of Catron County, no person shall release into the wild any animal of the genera Canis, Usus, Felis or Panthera.

Section 2. Conviction of violation of this ordinance shall carry a fine of $300 or imprisonment of 90 days or both.

Section 3. This Ordinance shall be recorded in the book kept for that purpose and shall be authenticated by the signature of the County Clerk and shall take effect in accordance with law.

Section 4. Catron County Ordinance No. 002-92 is hereby repealed and superseded.

PASSED, APPROVED, AND ADOPTED this 17th day of May, 2002.

ATTEST:

/s/ Carl Livingston, Chairman

/s/ Sharon Armijo, County Clerk

/s/ Auggie Shellhorn, Member

/s/ John Hand, Member

BOARD OF COUNTY COMMISSIONERS
CATRON COUNTY, NEW MEXICO
Chapter 1

The Legal Framework for the Catron County Comprehensive Plan

The legal foundation for the Catron County Comprehensive Plan dates back to 1803. To correctly interpret the laws cited in the comprehensive plan, it is necessary to apply word definitions which were in effect when the laws were promulgated. For example, a Supreme Court decision of 1855 stated that the meaning of the words of the Guadalupe-Hidalgo Treaty were to be locked forever under the meaning of the words of the ancient treaty of the Louisiana Purchase of 1803. Applicable definitions have been provided in the Glossary at the front of this document.

A. INTRODUCTION

This chapter presents the legal framework for Catron County land planning authority. The first section outlines the New Mexico enabling act for county home rule and jurisdiction. The remainder of the chapter presents the legal framework for Catron County to plan, particularly with regards to federal lands. A full discussion of all the federal and state laws and administrative rules bearing on local county authority and coordination is presented in Appendix 1, The Legal & Administrative Environment.

Catron County is facing challenges to the viability of its economy and the well-being of its citizens. Catron County is especially vulnerable to these challenges because over 70 percent of Catron County is under the jurisdiction of government land agencies. Federal land agency decisions have adversely affected county sovereignty, eroded private property rights, and diminished democratic principles. Catron County government, however, does have a legal framework provided in the U.S. Constitution and existing federal and state laws and regulations. The basic county sovereign authority is to protect the health, safety and economic well-being of its citizens.

B. CATRON COUNTY PLANNING AUTHORITY

Catron County has been granted by the state legislature ‘Home Rule’ powers necessary and proper to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort, and convenience of its citizens. The Home Rule Validation Act allows New Mexico counties to develop land use, resource management and environmental planning resolutions and ordinances.
B.1 County Home Rule

In general, “included in this grant of powers to the counties are those powers necessary and proper to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort, and convenience of any county or its inhabitants.” “The board of county commissioners may make and publish an ordinance to discharge these powers not inconsistent with statutory limitations placed on counties.”¹

In 1987, the “Home Rule County Validation Act” was enacted as follows:²

4-37-10. Short.
This act [4-37-10 to 4-37-13 NMSA 1978] may be cited as the “home Rule County Validation Act.” (Approved march 4, 1987)

4-37-11. Validation.
All amendments adopted under color of law to a county charter adopted under the provisions of Article 10, Section 5 of the constitution of New Mexico allowing or purporting to allow the county to exercise all legislative powers and perform all functions not expressly denied by general law or charter as provided in Article 10, Section 6 of the constitution of New Mexico and all acts and proceedings heretofore taken under such charter amendments are hereby validated, ratified, approved, and confirmed, as of the date of adoption or attempted adoption of such amendments, notwithstanding any lack of power, authority or otherwise, and not withstanding any defects and irregularities in such acts and proceedings.

4-37-12. Effect and Limitations.
The home Rule County Validation Act [4-37-10 to 4-37-13 NMSA 1978] shall operate to supply such legislative authority as may be necessary to validate any amendments to a county charter adopted under Article 10, Section 5 of the constitution of New Mexico allowing the county to exercise the powers provided for in Article 10, Section 6 of the constitution of New Mexico and any acts and proceedings heretofore taken under such charter amendments which the legislature could have supplied or provided for or can now supply of provide foe in the law under which such amendments were adopted and such acts and proceedings were taken. The Home Rule County Validation Act, however, shall be limited to the validation of charter amendments, acts, and proceedings to the extent to which such validation can be effectuated under the state and federal constitutions. The Home Rule County Validation Act shall not operate to validate, ratify, approve, confirm, or legalize any charter amendment, act, or proceeding or other matter which has heretofore been determined in any

¹ 4-37-1 NMSA 1978
² 4-37-1 NMSA 1978
Legal proceeding to be illegal, void, or ineffective. (Approved March 4, 1987).

The Home Rule County Validation Act [4-37-10 to 4-37-13 NMSA 1978], being necessary to secure the public health, safety, convenience, and welfare, shall be liberally construed to carry out its purposes.

B.2 County Ordinance Jurisdiction

New Mexico statutes establish the county ordinances are effective on privately owned land or land owned by the United States as follows:

4-37-2. Areas in which county ordinances are effective.
County ordinances are effective within the boundaries of the county, including privately owned land or land owned by the United States.³

4-37-3. Enforcing county ordinances; jurisdiction.
County ordinances may be enforced by prosecution for violations of those ordinances in any court of competent jurisdiction of the county. Penalties for violations of any county ordinances shall not exceed a fine of three hundred dollars ($300) or imprisonment for ninety days, or both the fine and imprisonment.⁴

B.3 U.S. Supreme Court Decision: Jurisdiction of State & Local Courts⁵

On May 20, 1991, the United States Supreme Court declared that the federal agencies are required to submit to the jurisdiction of state and local courts.⁶ In a unanimous decision, the court declared that federal agencies sued under state law in a state court cannot seek to have the case removed to federal court. The question before the Supreme Court was whether the National Institute of Health, an agency of the federal government, could force a case under state law to be heard in federal district court. The Supreme Court ruled that cases involving federal agencies could not be automatically removed to federal court. The Court concluded that although persons or officers of the federal government specifically named in a state action is state court can cause a case to be heard in federal court, federal agencies named as sole defendants cannot cause a case to be removed to federal court. Individuals or county governments seeking to protect their rights under state or local law, in state or local courts, against the federal government should name only the federal agency creating the statutory violation rather than naming individual employees.

³ 4-37-2 NMSA 1978.
⁴ 4-37-3 NMSA 1978.
⁵ 4-37-10 to 4-37-13 NMSA 1978.
C. DUAL SOVEREIGNTY & DUAL REGULATION ON FEDERAL LANDS

C.1 The Constitution & Federalism

The Founders of the U.S. Constitution did not want the federal government to serve as the watchdog over the states’ responsibility to protect the rights of their citizens. Thus, the Founders wrote a Constitution, including a Bill of Rights, that strictly limited the powers of the federal government and allocated most powers to the states and reserved the remaining powers to the American people. This is the basis of federalism. The Tenth Amendment clearly articulates these principles:

The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.7

The states were to exist free from external control except for powers specifically granted to the federal government in the Constitution. The federal government’s role is largely to guarantee that the states can exist as sovereign governments and to facilitate the coordination of matters affecting the states.8 Sovereignty is “characterized by equality…among states, and self-government within its own territorial limits, and jurisdiction over its citizens beyond its territorial limits”.9 The powers and the rights vested in the states by the U.S. Constitution guaranteed them the basic powers and rights of self-determination.

The State of New Mexico recognizes its rights and obligations in the State Constitution:

The state of New Mexico is an inseparable part of the federal union, and the constitution of the United States is the supreme law of the land.10

All political power is vested in and derived from the people: all government of right originates with the people, is founded upon their will and is instituted solely for their good.11

The people of the state have the sole and exclusive right to govern themselves as a free, sovereign, and independent state.12

All persons are born equally free, and have certain natural, inherent and unalienable rights, among which are the rights of enjoying and defending life and liberty, of acquiring, possessing, and protecting property, and of seeking and obtaining safety and happiness.13

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8 ibid.
10 Constitution of New Mexico, Article II, Section 1.
11 Constitution of New Mexico, Article II, Section 2.
12 Constitution of New Mexico, Article II, Section 3.
13 Constitution of New Mexico, Article II, Section 4.
C.2 Dual Sovereignty & Concurrent Regulations on Federal Lands

As a landowner in the West, the federal government has enormous political and legal leverage that affects local and state laws and economies. The property Clause of the Constitution provides the authority of the federal government to administer federal lands.14 But federalism that evolved from the U.S. Constitution is designed to disperse political power, to avoid “centralization of power”. According to Dave Frohnmayer:

federalism is the bulwark of protection to individual liberty. It is a structural arrangement of government power which safeguards individual liberties by means that are unrelated to a bill of rights.15

In relation to the federal government as a landowner, local, and state governments are more than political subdivisions. They are political sovereigns that have dual or concurrent authority to plan and regulate on federal lands. This is defined as “dual sovereignty” and exercising it is referred to as “concurrent” (dual) planning and regulation on federal lands. In order to exercise this authority, there must be a state (or local) interest.16 Again, the overriding interest for Catron County as a sovereign, is its responsibility to protect the rights of its citizens.17

As a political sovereign, Catron County government has an interest in federal and state lands within the County. Over seventy per cent of the land is managed by federal agencies. The citizens in Catron County rely mostly on federal lands for their livelihoods, their recreation and their way of life. Because the health, safety, and welfare of Catron County’s citizens is dependent upon their use of federal lands, Catron County, as a sovereign political subdivision, has concurrent jurisdiction on the federal lands.

To exercise concurrent authorities between local/state and federal jurisdiction three arrangements must exist:

1. No preemption of a Field. Preemption of a field of law expressly precludes any concurrent regulations by state or local governments. Barring state or local concurrent regulations from the field is rare.

2. Concurrent State/Local Jurisdiction Must Be Consistent with Federal Law. When both sovereigns (state and federal government) exercise legal authority… “a law that provides to the extent not inconsistent with federal law, a state may

14 Article IV., § 3, cl. 2 of the U.S. Constitution.
17 ibid at 7.
Regulate...” Good examples of this are state game and fish concurrent regulations on federal lands. Other examples are the provisions in federal land management statutes specifying consistency and coordination requirements with local and state government plans and management policies.

3. State Authority Over Federal Activities. “…In these cases Congress surrenders some of its constitutional prerogatives in order to establish acceptable working relationships with the states.” An example here is the protection of citizen property rights by the state which supersedes federal agency decisions.18

The key elements for achieving consistency and coordination trace back to the doctrine of dual sovereignty and concurrent regulations:

- Federal jurisdiction to manage the resources of federal lands.
- Local/state jurisdiction to protect the health, safety, economic welfare, and rights of its citizens.

The statutes related to federal-local consistency and coordination in land use planning are highlighted below. For a more in-depth presentation of all the federal and state statutes related to coordination with county governments, see Appendix 1, The Legal and Administrative Environment.

D. HOW DOES CATRON COUNTY PLAN?

The preceding sections outline the legal framework for Catron County planning and regulation on both private and government lands. This section identifies the Catron County planning framework, especially on federal lands. The Catron County economy is primarily dependent upon federal lands. The national Environmental Policy Act (and other relevant laws discussed later) contain provisions for Catron County to plan on federal as well as private land to protect its natural environment (consistent with federal laws) and to protect the culture, customs, social, and economic well-being of Catron County citizens. Catron County’s primary planning mechanism for planning on federal lands is to coordinate with federal land agencies to reach consistency between federal land agency plans and Catron County land resource plans.

Federal statutes and regulations require federal agencies to consider and protect from adverse impacts, the economic structure of counties. Furthermore, federal agencies must consider and protect more than just economic structures. For example, the National Environmental Policy Act (NEPA) requires all federal agencies to assure safe, healthful, productive, and aesthetically, and culturally pleasing surroundings and to preserve cultural aspects and maintain an environment supporting a variety of individual choices. More significantly, federal agencies must specify mitigation plans—how to reduce or

17 ibid at 7.
Eliminate adverse impacts to local communities. 19

The U.S. Forest Service and Bureau of Land Management regulations require the respective agency to consider effects of its actions on communities adjacent to, or near, federal lands, and on employment in affected areas. The spirit and the letter of the statutes and regulations require agencies to protect a community’s way of life—the delicate fabric holding families together—as well as a community’s economic base before taking actions that might prove harmful. This comprehensive plan refers to the federal obligation in terms of protecting and preserving the community’s economic base as either “economic stability” or “community stability.”

The remainder of this chapter identifies the legal and administrative framework, under existing federal law, that provides Catron County (and the state of New Mexico) the opportunities, not only to participate, but to plan and regulate land use decisions on federal lands. The primary statute is the National Environmental Policy Act (NEPA). Other related laws are also discussed here and in Appendix 1.

E. CATRON COUNTY & THE NATIONAL ENVIRONMENTAL POLICY ACT

The NEPA is the basic national charter requiring consideration of the environment. It establishes policies, sets goals, and provides the means for carrying out policies and attaining goals. NEPA is extremely important to county governments. While it is a federal law, each state is expected to assist in implementation of NEPA. Under the “federalism” concept, it means that states and local governments can develop their own environmental plans under NEPA. Catron County environmental planning and review elements are outlined in Appendix 1, The Legal & Administrative Environment.

E.1 NEPA: Congressional Declaration of Policy

Federal land and resource agencies are required to carry out the mandates of NEPA within Catron County. It requires that these federal agencies consult, coordinate and jointly conduct environmental studies, plans, reviews, and hearings with Catron County’s Environmental Plan.

As the umbrella environmental law, NEPA declares:

“…that it is the continuing policy of the Federal Government, in cooperation with State and local governments,” 20 “…to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate

19 40 CFR § 1502.14(F), 1502.16(H), 1508.20.
20 42 USC 4331(a).
Federal plans, functions, programs, and resources to the end that the Nation may--”\textsuperscript{21} “…assure for all Americans safe, healthful, \textbf{productive}, and aesthetically, and \textbf{culturally pleasing surroundings};”\textsuperscript{22} and “…\textbf{preserve} important historic, \textbf{cultural}, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice.”\textsuperscript{23} [Emphasis added]

\textbf{E.2 NEPA: Protection of Culture & Custom}

NEPA not only requires the federal government to consider the impacts of the actions on the environment, but it also requires federal agencies to preserve culture and heritage. NEPA states that cooperation and coordination will occur with “local governments,” and that the culturally pleasing surroundings and cultural aspects of community will be preserved so as to support diversity and variety of individual choice.

Each county must determine and define its local custom and culture and then act to protect them. Catron County has defined its custom and culture in Chapter Two. Once a county government has identified and defined its custom and culture, it must inform the federal agencies of the definition and request that custom and culture be preserved under NEPA. State agencies should also be informed and requested to comply, accordingly.

\textbf{E.3 Mandate to Federal Agencies under NEPA}

NEPA mandates specific performance requirements which are crucial to the Catron County Comprehensive Plan:

\begin{quote}
All agencies of the Federal Government shall…\textsuperscript{©}include in every recommendation or report of proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on…
\end{quote}

(i) the environmental impact of the proposed action,
(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) alternatives to the proposed action,
(iv) the relationship between short-term uses of man’s environment and the \textbf{maintenance} and \textbf{enhancement} of long-term productivity, and

\textsuperscript{21} 42 USC 4331(b).
\textsuperscript{22} 42 USC 4331(b)(2).
\textsuperscript{23} 42 USC 4331(b)(4).
any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.\textsuperscript{24}

A significant element in (i) above relates to the term “cumulative” effects:

Cumulative impacts can result from individually minor but collectively significant actions taking place over a time period...\textsuperscript{25} Effects include ...historic cultural, economic, social, or health, whether direct, indirect, or cumulative.\textsuperscript{26}

In addition, means of mitigation (reducing the negative impacts) shall be detailed and provided realistic alternatives.\textsuperscript{27} In order to develop realistic mitigation plans and alternatives, it is necessary to coordinate with local government officials to adequately identify, at a minimum, the fiscal relationships between federal agencies and local governments. \textit{Identifying mitigation alternatives in a \textit{coordinated} way between the Catron County Commission and federal agencies is the key element to achieving \textit{consistency} between the comprehensive plan and federal agency plans.}

Furthermore, NEPA requires:

Prior to making any detailed statement, the responsible federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and view of the appropriate Federal, enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, and shall accompany the proposal through the existing agency review processes;

(G) Make available to States, counties, municipalities, institutions, and individuals, advice, and information useful in restoring, maintaining, and enhancing the quality of the environment;\textsuperscript{28}

Catron County should be alert to federal proposals, plans, legislation, or other major federal actions and request, when necessary, that an environmental impact statement be prepared (if one is not otherwise prepared) by the involved federal agency.

\textsuperscript{24} 42 USC 4332(2)(C)(i)-(v).
\textsuperscript{25} 40 CFR §1508.6.
\textsuperscript{26} 40 CFR § 1508.8.
\textsuperscript{27} ibid at 19.
\textsuperscript{28} 42 USC 4332(2)(C)(i)-(v) and (2)(G).
The president, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive [pertaining to NEPA substance] requirements.”

A major objective of the NEPA regulations is:

(b) Emphasizing cooperative consultation among agencies before the environmental impact statement is prepared rather than submission of adversary comments on a completed document.

NEPA requires agencies to circulate both the draft and final environmental impact statements, except for certain appendices and unaltered statements, to appropriate Federal, State, and local agencies authorized to develop and enforce environmental standards.

E.4 Joint Environmental Planning

NEPA provides the following guidelines for federal coordination with county governments to integrate federal environmental plans with local planning processes:

(b) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and State and local requirements, unless the agencies are specifically barred from doing so by some other law. Except for cases covered by paragraph (a) of this section, such cooperation shall, to the fullest extent possible, include:

(1) Joint planning processes.
(2) Joint environmental research and studies.
(3) Joint public hearings (except where otherwise provided by statute).
(4) Joint environmental assessments.

(c) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and comparable State and local requirements, unless the agencies are specifically barred from doing so by some other law…such cooperation shall to the fullest extent possible include joint environmental impact statements. In such cases, one or more Federal agencies and one or more State or local agencies shall be joint lead agencies. Where state laws or local ordinances have environmental impact statement requirements in addition to… those in NEPA, Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws so that one document will comply with all applicable laws.

28 40 CFR 1500.1(a).
29 40 CFR 1501.1(b).
30 40 CFR 1502.19(a).
(d) To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.32

The NEPA process is intended to help public officials make decisions that are based on environmental consequences, and that take actions to protect, restore, and enhance the environment and preserve local custom and culture. NEPA and the implementing CEQ regulations require all federal agencies to coordinate with county governments as outlined above. County governments can always resort to use of the NEPA process regardless of the federal agency, law, program, or action involved. Significantly, pertinent federal agencies (e.g., U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, and U.S. Park Service) are mandated in a wide range of laws to comply with NEPA. Accordingly, the Council on Environmental Quality has promulgated regulations to guide federal agencies through the NEPA process. Catron County will enact ordinances requiring its own environmental review, assessment and local public hearings processes (see Part I Ordinances).

Four major federal statutes—the NEPA, the Intergovernmental Cooperation Act (ICA), the National Forest management Act (NFMA), and the Federal Land Policy and Management Act (FLPMA)—mandate intergovernmental coordination and cooperation, especially where local and state governments can be or are affected by federal agency decisions. Furthermore, these federal statutes mandate resource allocation decisions and land uses on public lands must be made through a comprehensive public planning process. The complex mixture of data collection, analysis of impacts, review of alternatives, and implementation of strategies includes extensive public review and involvement by county government. These four statutes are briefly described below. Refer to Appendix 1, The Legal & Administrative Environment, for a more detailed discussion of these statutes and other relevant laws.

E.5 The Intergovernmental Cooperation Act

In addition to NEPA, the ICA requires federal agencies to coordinate and review with state and local governments, federal government programs and project plans. ICA:

…provides opportunities for strengthening the consultation and coordination between federal, local, and state governments through coordination and review of proposed federal assistance and direct federal development programs.33

32 40 CFR 1506.2(b)(c),(d).
33 Intergovernmental Cooperation Act, § 401 and 3 USC § 301.
Furthermore, the President of the United States issued Executive Order 12372. It requires federal agencies to coordinate with state and local governments. It requires federal agencies to comply with state processes for intergovernmental review and coordination of federal programs and actions.

Executive Order 12372 states:

Section 1. Federal agencies shall provide opportunities for consultation by elected officials of those state and local governments that would provide the non-federal funds for or that would be directly affected by proposed federal financial assistance or direct federal development.

Section 2.
(a) …federal agencies shall to the extent permitted by law:…determine official views of State and local elected officials.
(b) Communicate with State and local elected officials as early in the program planning cycle as is reasonably feasible to explain specific plans and actions.
(c) Make efforts to accommodate State and local elected officials’ concerns with proposed federal financial assistance and direct federal development…where the concerns cannot be accommodated, federal officials shall explain the basis for their decisions in a timely manner.

In Catron County, New Mexico, two agencies provide such review and coordination under ICA and Executive order 12372: (1) New Mexico Budget Division, New Mexico Intergovernmental Relations and Coordination program; and, (20 Southwest New Mexico Council or Governments. Catron County can use either the state office or the County of Governments as its coordinating body, or petition to establish its own review process. This third option is stated in the Executive Order:

Section 3. (a) The state process referred to in Section 2 shall include those where States designate, in specific instances to local elected officials the review, coordination, and communication with federal agencies.

It should be noted that under ICA and the Executive Order 12372, the review body has the unique authority to appeal federal decisions directly to the U.S. Secretaries of Agriculture and Interior departments. At present, only these government entities can appeal federal land decisions and plans directly to these cabinet heads. Furthermore, under the new federal appeals process, the general public and special interest groups will not be afforded liberal appeals as in the past; only the Executive Order 12372 ICA organizations will have the unique appeal access to these cabinet heads.
E.6 U.S. Forest Service Land & Resource planning/NEPA Processes

Laws require the Forest Service (FS) to consider Catron County government in its planning processes. For a detailed review of the Forest Service laws for coordination and consistency requirements with county governments, see appendix. The discussion below highlights the major policies of the Forest Service.

The Multiple Use and Sustained yield Act of 1960 directed the Secretary of Agriculture “to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom.”\(^33\) The Act authorizes the Secretary of Agriculture “to cooperate with interested State and local government agencies and others in the development and management of the national forests.”\(^34\) The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) strengthens the opportunity for county input. In Section 3, the RPA recognizes the importance of renewable forest and range resources, and directed the Secretary of Agriculture to prepare a Renewable Resource Assessment. The RPA elevates the relationship between the FS and county governments from one of cooperation to one of coordination with the following requirement:

6(a) As a part of the Program provided for by section 3 of this Act, the Secretary of Agriculture shall 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 planning processes of State and local governments and other Federal agencies.\(^35\) [Emphasis added]

The RPA was extensively amended by the national Forest Management Act of 1976. Significantly, Section 6(a) of the RPA, quoted above, was not amended. The National Forest Management Act requires that each plan developed “be revised (A) from time to time when the Secretary finds conditions in a unit have significantly changed, but at least every fifteen years.”\(^36\) It must coordinate land use planning efforts with those of county governments under this Act and through the NEPA process:

The resulting plans shall provide for multiple use and sustained yield of goods and services from the national Forest System in a way that maximizes long-term net public benefits in an environmentally sound manner.

(b) Plans guide all natural resource management activities and establish management standards and guidelines for the National Forest System. They determine resource management practices, levels of resource production and management, and the availability and suitability of lands

\(^{33}\) 16 USC 529.  
\(^{34}\) 16 USC 530.  
\(^{35}\) 16 USC 1604(a).  
\(^{36}\) 16 USC 1604(f)(5).
For resource management. Regional and forest planning will be based on the following principles:

(5) **Preservation of** important historic, cultural, and natural aspects of our national heritage;

(9) **Coordination with** the land and resource planning efforts of other Federal agencies, State and local governments, and Indian tribes;

(13) Management of National Forest System lands in a manner that is sensitive to economic efficiency; and

(14) Responsiveness to changing conditions of land and other resources and to changing social and economic demands of the American people. [Emphasis added]

Specific requirements for accomplishing the purposes of planning coordination with county governments are provided as follows:

(a) The responsible line officer shall coordinate regional and forest planning with the equivalent and related planning efforts of other Federal agencies, State and local governments, and Indian tribes. [Emphasis added]

(c) The responsible line officer shall review the planning and land use policies of other Federal agencies, State and local governments, and Indian tribes. The results of this review shall be displayed in the environmental impact statement for the plan (40 CFR 1502.16(c), 1506.2).

**E.7 U.S. Bureau of Land Management Land & Resource Planning/NEPA Processes**

The guiding statute for the Bureau of Land Management (BLM) to administer public lands is the Federal Land Policy and Management Act of 1976. The statute defines the term “public lands” as any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except: (1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos. FLPMA specifically requires the BLM to prepare land use plans:

(a) The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and, when appropriate, review land use plans which provide by tracts or areas for the use of the public lands. Land use plans shall be developed

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For the public lands regardless of whether such lands previously have been classified, withdrawn, set aside, or otherwise designated for one or more uses,38

It is significant to note that FLPMA provides explicit directives for the BLM to coordinate public land use planning with county governments, and to ensure that federal land use plans are consistent with local plans to the maximum extent possible. The statute details the BLM’s mandate as follows:

(c) In the development and revision of land use plans, the Secretary shall—

(9) ...to the extent consistent with the laws governing the administration of the public, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the State and local governments within which the lands are located, including, but not limited to, the statewide outdoor recreation plans developed under the Act of September 3, 1964 (78 Stat. 897), as amended, and of or for Indian tribes by, among other things, considering the policies of approved State and tribal land resource management programs. In implementing this directive, the Secretary shall, to the extent he finds practical, keep apprised of State, local, and tribal land use plans; assure that consideration is given to those State, local, and tribal plans that are germane in the development of land use plans for public lands; assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans, and shall provide for meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands, including early public notice of proposed decisions which may have a significant impact on non-Federal lands. Such officials in each State are authorized to furnish advice to the Secretary with respect to the development and revision of land use plans, land use guidelines, land use rules, and land use regulations for the public lands within such State and with respect to such other land use matters as may be referred to them by him.

(f) The Secretary shall allow an opportunity for public involvement and by regulation shall establish procedures, including public

38 43 USC 1712(a).
Hearings where appropriate, to give Federal, State, and local
governments and the public, adequate notice and opportunity to
comment upon and participate in the formulation of plans and
programs relating to the management of the public lands. 39
[Emphasis added]

Both the Forest Service and the BLM regulations require coordination and consistency
with state and local governments. The requirements pertain to both long-range plans
(e.g., forest plans) as well as coordination and consistency with county governments in
plan implementation; that is, project planning and development. For a more detailed
discussion of these requirements refer to appendix “The legal and Administrative
Environment.”

F. CATRON COUNTY ENVIRONMENTAL PLANNING & REVIEW

F.1 Purpose of the Environmental Review Plan

Under NEPA guidelines, Catron County shall establish and implement environmen
tal review plan ordinances to protect the resources for future generations as well as protect
the economic and community (customs and cultures) stability for present and future
generations. The planning process is designed for early detection and mitigation of
possible negative impacts of proposed state or federal decisions on resources in Catron
County, and on the custom, culture, and the economy of the citizens of Catron County.
To carry out this plan, coordination with federal and state agencies is important.

F.2 Intergovernmental Coordination

Federal statutes and presidential executive orders provide the framework for coordinated
planning between Catron County, state, and federal agencies. Federal statutes and
regulations require these agencies to coordinate with local governments in the initial
planning stages. 40 They also require that federal agencies working close consultation
when there are major changes in their federal resource plans. To date, such coordination
has not happened in a coordinated or consistent way.

In addition, the Intergovernmental Cooperation Act (42 USC § 4231) specifies
coordinated planning requirements between local, state, and federal agencies. Under
ICA, the Presidential Executive Order 12372 further mandates that federal agencies
coordinate federal actions and projects with local governments, especially when federal
projects impact local governments.

F.3 Plan Elements For Environmental Review

The Major elements of the Catron County Environmental Plan Ordinance shall be:

39 43 USC 1712(c)(9),(f).
40 16 USC § 1604 a, and 43 CFR § 1601.0-5, c.e.
Catron County

Part II: Chapter 1

Comprehensive Plan

The Legal Framework for the Catron County Comprehensive Plan

A. Coordinated Environmental Planning and Review
B. Environmental Assessment (Social and Economic)
C. Impacts on private Property Rights
D. Cumulative Effects
E. Mitigation Plans

Catron County economy is dependent upon federal and state lands to a large extent. It is, therefore, necessary that County, state, and federal agencies work closely to determine the benefits and costs of resource plans and decisions. By pooling local, state, and federal resources, the general public will be better informed about resource decisions and it will provide an unique opportunity to cooperatively develop realistic mitigation alternatives to reducing negative environmental social and economic impacts.

NEPA provides the legal framework for intergovernmental coordination:

1. Joint environmental planning approach
2. Joint environmental research
3. Joint public hearings
4. Joint preparation of environmental documents
5. Cumulative effects
6. Joint mitigation planning to include:
   - Realistic alternatives
   - Detailed alternatives

Catron County Commission shall promulgate environmental review ordinances to protect natural resources, stabilize the economy, and protect its custom, culture, and social resources and property rights.

F.4 Catron County Land Use Plan

Federal laws and regulations require that federal natural resource management (includes plans, activities, programs, and efforts) be coordinated with County land use plans and policies. Furthermore, they are required to protect Catron County culture and economic stability. The Catron County Comprehensive Plan defines the culture, custom, and the economic and community stability of Catron County. The next two chapters describe in detail what is to be protected in regards to Catron County custom and culture and what is required to protect its social and economic stability. The chapter on Catron County economy describes the social and economic aspects of the County, the recent impacts of federal decisions on the County, and describes the amount and type of commodity, recreational, or other industrial or land uses that are required to support the tax base for Catron County and maintain community and economic stability of Catron County.

41 1640 CFR § 1506.2.
Chapter 2

Culture & Custom

The legal foundation for the Catron County Comprehensive Plan dates back to 1803. To correctly interpret the laws cited in the comprehensive plan, it is necessary to apply word definitions which were in effect when the laws were promulgated. For example, a Supreme Court decision of 1855 stated that the meaning of the words of the Guadalupe-Hidalgo Treaty were to be locked forever under the meaning of the words of the ancient treaty of the Louisiana Purchase of 1803. Applicable definitions have been provided in the Glossary at the front of this document.

A. INTRODUCTION

The purpose of the custom and culture section of the comprehensive plan is to begin to define custom and culture as required by the National Environmental Policy Act (NEPA). Among other things, NEPA requires:

It is the continuing responsibility of the Federal Government to use all practical means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings,…

(4) preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment which supports diversity and variety of individual choice.¹

Culture, as used in NEPA, is defined as:

The body of “customary beliefs, social forms, and material traits”² constituting a distinct complex of tradition “of a racial, religious, or social group”³—that complex whole that includes knowledge, belief, morals, law, customs, opinions, religion, superstition, and art.

As stated in the above definition, culture includes custom.

¹ 42 USC § 4331(b)(2),(4).
“Custom” is defined by Black’s Law Dictionary as:

A usage of practice of the people, which by common adoption and acquiescence, and by long and unvarying habit, has become compulsory, and has acquired and force of a law with respect to the place or subject-matter to which it relates…An habitual or customary practice, more or less widespread, which prevails within a geographic or sociological area.4

Custom, as used in the context of the comprehensive plan, refers to land usages and practices that have “acquired the force of a tacit and common consent.” Such land uses and practices, livestock grazing, logging, and hunting, to mention just a few, are well established, readily identifiable, and are the foundation of Catron County’s economy.

Common use are everyday experience teaches us that the words “custom” and “culture” are frequently interchanged. We often rely on just one of the two terms to convey the meanings of both. Yet, in very important ways, the individual meanings of “custom” and “culture” are quite different and are not so easily switched or substituted. Culture deals more with human activities and practices and the acceptance and adoption of those activities and practices as community immediately evident on the surrounding landscape. It pertains to what people believe and value and how they pursue and realize those beliefs and values. Custom, on the other hand, is the way that people implement their culture. It deals with the way that people traditionally use the land and its natural resources, make a living and act toward each other. Custom is the visible and tangible manifestation of the shared beliefs that binds a group of people into a community.

In Catron County, culture, in a very down to earth sense, comprises the shared values and beliefs that give guidance and meaning to the lives of local residents. These shared values and beliefs that give guidance and meaning to the lives of local residents. These shared values and beliefs, including such traits as independence, égalité, self-sufficiency and devotion to family, work, and the land, have their origins in religion, folk traditions and in the shaping influence of environment on the individual and community. Moreover, culture in Catron County includes the array of social standards and social institutions, from family ties, to kindly neighbors, to high school sports, to the county rodeo, that hold together and give common purpose and meaning to community life.

Of all the qualities of culture coloring the American experience, equality may be the most crucial.

The principle of equality, which makes men independent of each other, gives them a habitat and taste for following in their private actions, no other guide than their own will. That complete independence, which they constantly enjoy in regard to their equals and in the intercourse of private life, tends to make them look upon all authority with a jealous eye and speedily suggests to them the

notion and the love of political freedom. Men living at such times have a
natural bias towards free institutions. Take any one of them at a venture
and search if you can his most deep-seated instincts, and you will find
that, of all governments, he will soonest conceive and most highly value
that government whose head he has himself elected and whose
administration he may control.

Culture is a people’s identity and the foundation upon which political society and an
economy are built. Without culture, without commitment to democracy, devotion to
equality, and celebration of political freedom, the people of Catron County would be
something less than what de Tocqueville defined to be American. The citizens of Catron
County are inseparable from their culture. They are, first and foremost, Americans with a
deep-seated commitment to democracy, equality and political freedom. They are also
unique products of the complex web of land uses and practices, values and beliefs that
nurture their communities, sustain their spiritual and physical environments. Stripped of
their land use practices and usages, denied their values and beliefs, they would lose
coherence as a people. If stripped and denied of their private property rights, their
equitable estates of federal lands, their right to practice self-rule, to pursue equality and to
live and practice the challenge of political freedom, they would lose the very essence of
what it means to be American: To be sovereign in one’s own land; to be fully equal in
matters of power; and to be the final beneficiaries of political freedom.

The Native American roots of culture and custom and the oldest in New Mexico. In
1598, Juan de Onate laid the foundation for permanent Spanish settlement in New
Mexico. Spanish institutions exerted a profound influence on New Mexicans who would
live under Spanish and Mexican law for two hundred fifty years before becoming part of
the United States. An additional and profound influence creating the customs and culture
of Spanish and Mexican people living in New Mexico was the Roman Catholic Church.
The Church provided these people with their religious values, family structures and sense
of community.

In 1846, General Kearny took possession of New Mexico, imposed martial law and
established a code of conduct which would become known as Kearny’s Code. Within the
context of this Code, he recognized the existing culture and custom of the area and
pledged to the inhabitants, as citizens of a Territory of the United States, that the Army
would protect and defend these customs and cultures. Kearny’s Code remains part of the
statutory law of the State of New Mexico today.

In addition to the culture described above, perhaps the most important custom which
would be protected under the Kearny Code was the right of private property ownership.
Prior to the imposition of Martial Law, title to private property could only be acquired
through permission of the Spanish King, the Mexican government or their
representatives. To acquire title under Spanish or Mexican law, the citizen or settler first
had to request permission of the King or government. Once that permission was

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acquired, the settler was allowed to enter the property, then occupy and improve that property. These requirements of occupancy and improvement came to be known as property. These requirements of occupancy and improvement came to be known as public good and public weal. As described by J. Brocchus in his dissenting opinion in *Pino v. Hatch*, (Sup. Ct. Jan. 1855), “those uses were the cultivation of the soil, the pasturing of flocks, the promotion, and encouragement of industrial pursuits, and in general such purposes as looked to the settlement of the uninhabited portions of the province, the enhancement of the value of the soil, the development of the resources of the country, and the promotion of the public good.”

Public weal was defined in much the same manner as public good. In that same opinion J. Brocchus described “public weal” as public good with an additional requirement of “the enhancement of the value of the adjacent lands belonging to the public domain.

After four years of land occupancy and creating public good and public weal, the settler could then apply for land title. Once the King’s or government’s representative was ensured that the requirements of occupancy, public good and public weal were satisfied, the King or government granted title to the requesting party.

Another way that title could be acquired was a grant by the Spanish or Mexican government for services rendered such as for assuming responsibility for defense against nomadic Indians or for “peopling” or developing the tracts in question. Although the acquisition of lands by grant from the King or government came to an end with the signing of the Guadalupe-Hidalgo Treaty in 1848, the custom of occupancy and creating public good/public weal did not. These concepts carried through to the American concept of preemption. Under preemption, the settler was also required to hold the land by occupancy, then create “public good” and “public weal” before he could acquire title.

Although Congress questioned the Kearny Code as evidenced by a Resolution sent to President Polk, the President rebuffed Congress and “…justified the general’s actions as extending to these people those rights which were so cherished in the United States…”

With the signing of the Guadalupe-Hidalgo Treaty, which ended the Mexican-American War, in 1848, the New Mexico Territory was formally ceded to the American Government. The terms of the Treaty explicitly specified that any property right, culture, and custom which had been recognized by the Spanish or Mexican governments before the lands were ceded to the United States would continue intact and be honored and protected by the United States.

After the arrival of Kearny, the ceding of New Mexico to the United States and the establishment of Kearny’s Code, the third dominant culture was introduced to New Mexico when an immigration, consisting largely of Scot-Irish American merchants, miners, ranchers, skilled workers, and freighters came to the Territory, married local Spanish/Mexican women and became integrated into the now Hispanic-American
community. This Hispanic-American influence is still the most distinguishing contributor to the culture and custom in New Mexico.

Today, the Scot-Irish contribution to the culture of Catron County is largely that of the border estate between Scotland and England.

The border derived its cultural character from one decisive historical fact. For seven centuries, the Kings of Scotland and England could not agree who owned it... From the year 1040 to 1745, every English monarch but three suffered a Scottish invasion, or became an invader in his turn... This incessant violence shaped the culture of the border region...

To the first settlers, the American backcountry was a dangerous environment, just as their British borderlands had been. The borderers were more at home than others in this anarchic environment, which was well suited to their family system, their warrior ethics, their farming, and herding economy, their attitudes toward land and wealth and their ideas of work and power. So well adopted was the border culture to this environment that other ethnic groups tended to copy it.

**B. THE CUSTOM OF LIVESTOCK GRAZING IN CATRON COUNTY**

There is no question that the culture of the Scot-Irish, Mexican, and Spanish people living in Catron County have shaped the land use practices, customs, and economy of the area. With regard to livestock grazing, these customs were also influenced by the local environment. As the local residents will attest, the environment in Catron County for raising livestock is harsh. The weather is hot, the rainfall is sparse, and it is difficult to work the soil to grow crops on anything but lands subject to irrigation. Because of these “abnormal conditions” when compared to lands east of the 30th meridian, it takes a great deal of land to sustain even a modest size herd of livestock. These environmental factors shaped the custom of livestock grazing in Catron County.

As stated above, land acquisition under the governments of Mexico and Spain came from grants by the King of Spain or the Government of Mexico. However, because of environmental factors described above, that grant of land was normally not enough to sustain a herd of livestock. Therefore, in addition to the use of his property, the Spanish or Mexican citizen also used the other unclaimed lands belonging to the government, in connection with his private property, to sustain his herd his way of live, and to perpetuate community stability.

In New Mexico, the development of livestock grazing under the American system paralleled, intertwined and emulated the Spanish and Mexican custom of using the unclaimed public domain. Under the American system, although a settler could make a

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good living on 160 or 640 acres of homestead lands east of the 30th meridian, the same could not be said in Catron County. As the Spanish and Mexican citizens had discovered, the environment in New Mexico required more land for grazing than could be granted to the settler. As such, a parallel custom, learned from the Spanish and Mexican settlers, became the American custom. Allowing livestock to graze on the unclaimed public domain became the norm.

Not only was the grazing of livestock on the unclaimed federal lands the custom in Catron County, the practice was encouraged by the United States presidents and by the Army who wished to quickly settle and occupy these lands for the United States. There were numerous reasons that American settlers and pioneers were desperately needed to quickly settle the New Mexico territories. First, many American Presidents were afraid that, unless the New Mexico territories were populated and settled by citizens loyal to the United States, a foreign power would take control of these lands by occupancy. Even though the Guadalupe-Hidalgo Treaty had ended the war with Mexico, the American presidents wanted to be sure that these newly acquired lands would be populated with citizens loyal to the United States. As president Polk explained in 1847:

\begin{quote}
Mexico is too feeble a power to govern these Provinces, lying as they do at a distance of more than 1000 miles from her capital, and if attempted to be retained by her they would constitute but for a short time even nominally a part of her dominions…
\end{quote}

\begin{quote}
The sagacity of powerful European nations has long since directed their attention to the commercial importance of that Province, and there can be little doubt that the moment the United States shall relinquish their present occupation of it and their claim to it as indemnity an effort would be made by some foreign power to possess it, either by conquest or purchase. If no foreign government should acquire it in either of these modes, an independent revolutionary government would probably be established by the inhabitants and such foreigners as may remain in or remove to the country as soon as it shall be known that the United States have abandoned it. Such a government would be too feeble long to maintain its separate existence, and would finally become annexed to or be a dependent colony of some more powerful state…no foreign power shall without our consent be permitted to plant or establish any new colony or dominion on any part of the North American continent…
\end{quote}

The Provenances of New Mexico and the Californias are contiguous to the territories of the United States, and if brought under the government of our laws their resources—mineral, agricultural, manufacturing, and commercial—would soon be developed.\footnote{Polk, James K., \textit{IV Messages and Papers of the president, 1847}. New York, 1897, pp. 539-540}

In additional to the concern over the use of foreign powers on American soil, the Congress and the Presidents also faced the problem of securing the land from hostile Indian tribes. When President Zachary Taylor received the helm of the nation, he
focused on occupying and controlling the southwest region because of her great agricultural and mineral wealth. However, as he soon discovered, the Southwest was not easily controlled because of its numerous Indian tribes.

President Millard Fillmore also faced problems with the warring Indian tribes in the Southwest. In his third address to the Nation, he stated:

Every effort should be made to protect our frontier and that of the adjoining Mexican States from the incursions of the Indian tribes. Of about 11,000 men of which the Army is composed, nearly 8,000 are employed in the defense of the newly acquired territory (including Texas) and of the emigrants proceeding thereto. I am gratified to say that these efforts have been usually successful. With the exception of some partial outbreaks in California and Oregon and occasional depredation on a portion of the Rio Grande, owing, it is believed, to the disturbed state of that border region, the inroads of the Indians have been effectually restrained.⁸

Fillmore also continually reminded Congress that the Guadalupe-Hidalgo Treaty also required the United States to protect the Mexican frontier. Although Fillmore was able to convince Congress to appropriate larger regimes of the cavalry to the Southwest, he also recognized that the best protection against hostile Indians was to increase permanent settlements.⁹

A third reason that the government wanted to colonize the West as quickly as possible was for the protection of the public traveling across the continent. As stated by president Polk:

For the protection of emigrants whilst on their way to Oregon against the attacks of the Indian tribes occupying the country through which they pass, I recommend that suitable number of stockades and blockhouse forts be erected along the usual route between our frontier settlements on the Missouri and the Rock Mountains, and that an adequate force of mounted riflemen be raised to guard and protect them on their journey….¹⁰

After recognizing the difficulties of life in the southwest and the importance of keeping those lands for the United States, the Congress and presidents would face the problem of determining (1) how the land would be secured for those already living in the Southwest and (2) how the land would be transferred to those moving to the Southwest. With regard to those already occupying the land, the answer to the question would be contained in “local law” and an international treaty. As stated above, Kearny’s Code and the Treaty of Guadalupe-Hidalgo guaranteed the protection of the customs, cultures, and property rights of those already living in the New Mexico territories. Because many of those settlers had already acquired property titles and additional property use rights from the

¹⁰ Polk, 1845, supra, pp. 396-397.
good Spanish or Mexican governments or by occupancy and the promotion of the public
good and the public weal, those rights would be protected and honored by the United
States government under the treaty and Kearny’s Code. Such protection also extended to
those land use rights which were not codified by legal title because of the promise to
protect local custom. The Treaty of Guadalupe-Hidalgo and Kearny’s Code even
extended to protection of property and land use rights as those uses passed from buyer to
seller and from generation to generation.

With regard to the people who were induced by the American government to go to the
Southwest to make their fortune, Congress and the Presidents promised “liberal grants”
of the land. As promised by President Polk:

I recommend that the surveyor-general’s offices be authorized to be
established in New Mexico and California, and provision made for
surveying and bringing the public lands into market at the earliest
practicable period. In disposing of these lands, I recommend that by right
of preemption be secured and liberal grants be made to the early emigrants
who have settled or may settle upon them. [Emphasis added].

In a separate address, President Polk stated:

That it will ultimately be wise and proper to protect and make liberal
grants of land to the patriotic pioneers who amidst privations and dangers
lead the way through savage tribes inhabiting the vast wilderness
intervening between our frontier settlements and Oregon, and who
cultivate and are ever ready to defend the soil, I am fully satisfied. To
doubt whether they will obtain such grants as soon as the convention
between the United States and Great Britain shall have ceased to exist
would be to doubt the justice of Congress.

Along that same line, President Zachary Taylor told Congress in 1849:

[I recommend] that commissions be organized by Congress to examine
and decide upon the validity of the present subsisting land titles in
California and New Mexico, and that provision be made for the
establishment of offices of surveyor-general in New Mexico, California,
and Oregon and for the surveying and bringing into market public lands in
those territories. Those lands, remote in position and difficult to access,
ought to be disposed of on terms liberal to all but especially to the early
emigrants.

President Fillmore also urged that Congress move swiftly to establish a commission to
examine the validity of all the lands claims in New Mexico and California, since he
viewed the uncertainty of those claims as retarding the settlement of the country. In his

11 ibid.
12 ibid.
annual address in 1851, he again stressed the need to encourage settlement of the Territories:

The agricultural lands [of the newly acquired Territories] should, however, be surveyed and brought into the market with as little delay as possible, that the titles may become settled and the inhabitants stimulated to make permanent improvements and enter ordinary pursuits of life.\textsuperscript{14}

Franklin Pierce followed President Fillmore to the White House. He also believed that agriculture development in the west and southwest was of the utmost importance. He urged that the lands be swiftly and inexpensively sold to those settlers who would develop the lands for agriculture purposes.\textsuperscript{15}

President Ulysses Grant continued to encourage the movement west with promises of the acquisition of property:

The opinion that the public lands should be regarded chiefly as a source of revenue is no longer maintained. The rapid settlement and successful cultivation of them are now justly considered of more importance to our well-being than is the fund which the sale of them would produce. The remarkable growth and prosperity of our new States and Territories attest to the wisdom of the legislation which invites the settler to secure a permanent home on terms within reach of all. The Pioneer who incurs the dangers and privations of a frontier life, and thus aids in laying the foundation of new commonwealths, renders a signal service to his country and is entitled to its special favor and protection. These laws secure that object and largely promote the general welfare. They should therefore be cherished as a permanent feature of our land system.\textsuperscript{16}

While honest settlers and pioneers hastened west turning barren wasteland into productive farms and ranches, other not so honest and productive citizens also ventured west to attempt to make a fast fortune. Such stories of the graft and corruption of land speculators who would move into an area to deplete the timber and other resources then move on without purchasing or replenishing the land so that it would be suitable for use by permanent settlers caused Congress, in 1891, to build the American west. First, Congress permanently repealed the preemption acts and second, Congress added an amendment to the appropriations bill allowing the president to set aside “national forest lands” or forest reserves.

Even after the creation of the forest reserve system, the importance of the use of the unclaimed federal lands for livestock grazing was recognized and protected. As stated in the official annual report of the Secretary of the Interior in 1891, “One striking difficulty in establishing the reservations [forest reserves] themselves may be found in the fact that

\textsuperscript{14} Fillmore, Millard, \textit{VI Messages and Papers of the Presidents}: 1851. New York, 1897, p. 127.
\textsuperscript{15} Pierce, Franklin, \textit{VI Messages and Papers of the Presidents}, 1853. New York, 1897, p. 2749.
\textsuperscript{16} Grant, Ulysses, \textit{IX messages and Papers of the Presidents}, 1853. New York, 1897, pp. 110-111.
much of the land that should be reserved is as yet unsurveyed; other parts are subject to prior rights, or are expected to be included in railroad grants.\textsuperscript{17}

Although the creation of the forest reserves or national forests had a very rocky start, livestock grazing was always part of the use of those lands. In fact, the Department of the Interior immediately began to adopt policies to protect the rights of livestock operators using the forest reserves. Those policies (1) encouraged the rancher to develop improvements to enhance the productivity of the forest reserves, (2) allowed title to remain with the Forest Service so that those lands suitable for private settlement would only be taken if such settlement did not interfere with the livestock owners grazing rights, (3) allowed the states to collect taxes from the use of the federal lands to be used for the development of water resources and (4) encouraged cooperative projects between the Department of the Interior and the individual livestock producer to better the land for livestock grazing.\textsuperscript{18}

The Secretary of the Interior also established rules and regulations to implement the will of Congress in creating the forest reserves and to protect the prior rights of those within the borders of the reserves. The first regulations allowing the continued use of the forest reserves acknowledged the Spanish custom of allowing local ranches to have first priority for use of the public lands. As described by the Secretary of the Interior in 1902:

Applicants for the grazing privilege are given preference in the following order:

(a) Persons residing within the reserve.

(b) Persons owning ranches within the reserve, but not residing thereon.

(c) Persons living in the vicinity of the reserve owning what may be called neighboring stock.

(d) Persons living at a distance from the reserve who have some equitable claim to use the reserve.

Class (b) under paragraph 16 should not be construed so as to allow large stock owners to obtain the preference therein given, by simply buying or obtaining small ranches inadequate for their business. This will not be tolerated.\textsuperscript{19} [Emphasis added].

Although these regulations initiated a good start in the recognition of the prior rights on the federal lands, further progress in the recognition of these rights was made during the


1905 Denver meeting between the Forest Service and stockmen. During this meeting, the following report was made:

The main points of agreement, worked out by the department and stock organizations, emphasized that these already grazing in the forest ranges would be protected in their priority of use [Law of Occupancy and Prior Appropriations Doctrine]: that reductions in the number of grazed stock would be imposed only after fair notice; that small owners would have preference over large; that only in rare circumstances would the department seek total exclusion of stock from the forest; and that the policy of use would be maintained wherever it was consistent with intelligent forest management. Finally, some attempt would be made to give stockmen a voice in making the rules and regulations for the management of stock on local ranges through the establishment of forest advisory boards.\textsuperscript{20}

In 1906, the above agreement was codified into regulation by the Forest Service “The Use Book.” Those regulations permanently allocated grazing on the federal lands in the following manner:

Applicants for grazing permits will be given preference in the following order.

(a) Small nearby owners.
Persons living in or close to the reserve whose stock have regularly grazed upon the reserve range and who are dependent upon its use.

(b) All other regular occupants of the reserve range.
After class (a) applicants have been provided for, the larger nearby owners will be considered, but limited to a number which will not exclude regular occupants whose stock belong or are wintered at a greater distance from the reserve.

(c) Owners of transient stock.
The owners of stock which belong at a considerable distance from the reserve and have not regularly occupied the reserve range.

Priority in the occupancy and use of the range and the ownership of improved farming land in or near the reserves will be considered, and the preference will be given to those who have continuously used the range for the longest period.

It was by this system and the recognition of the long-standing use of the federal lands that created the permit and preference right system used by the Forest Service and Bureau of Land Management today.

After considering the Spanish and Mexican customs and culture as protected by Kearny’s Law and the Treaty of Guadalupe-Hidalgo, the promises made to the settlers and pioneers by the American presidents and Congress and the efforts made to protect and continue livestock grazing even after the creation of the forest reserves, the question to the answered by this comprehensive plan is whether those events have legal significance today. The answer to that question is YES.

It follows, if a person follows the law, he has the benefit of the law. The settlers in the New Mexico territories in obeying the local laws and customs, relying on the promises of the U.S. presidents and obeying the rules and regulations required after the creation of the forest reserves have earned an equitable estate for livestock grazing on public and federal lands.

An equitable estate is a “right or interest in land, which not having the properties of a legal estate, but merely being a right of which courts of equity will make notice, requires the aid of such court to make it available. These estates consist of uses, trusts, and powers.”\(^\text{21}\) in cases of “conflict” between an equitable right and a legal title, the courts will either suspend the enforcement of the legal title, “or decree that it [the legal title] shall be considered as held in trust for the benefit of the one having the equitable title. If equities are made out, the court will always require them to be satisfied before the legal title will be enforced.”\(^\text{22}\) [Emphasis added]. Actions to protect incorporeal rights are also within the jurisdiction of the equity court.\(^\text{23}\) Equitable estate, according to Noah Webster’s 1828 *American Dictionary of the English Language*, is “…The estate of interest of one who has a beneficial right in property, the legal ownership of which is vested in another…”

There are numerous reasons that the equitable estate in the federal lands created by the Catron County’s custom and culture, recognized by the presidents and Congress and originally protected and recognized by the U.S. Forest Service and Bureau of Land Management should remain in full force and effect today. First, livestock grazing on the unclaimed or federal lands is protected under the Kearny Code and the Guadalupe-Hidalgo Treaty. As described above, it was by Spanish and Mexican custom that a person grazing the unclaimed lands earned an equitable estate in that land. The extent or size of the equitable estate was determined by the amount of water owned by the settler. “A territorial statute of 15 February 1887 limited the cattle on a given range to the number which could be watered.”\(^\text{24}\)

Second, the original Forest Service regulations sanctioning livestock grazing on the federal lands recognized and protected the grazer’s right to use the federal lands. As

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\(^{21}\) *Bouvier’s Law Dictionary*, p. 530, (1\(^{st}\) ed. 1868).


\(^{23}\) ibid.

stated above, only those livestock operators who could prove a prior use of the unclaimed lands, who had adequate water rights or “commensurate property” and who lived in or near the federal lands could acquire a grazing permit. The fact that those grazing permits were originally taxed as private property further illustrates the Forest Service original intent of protecting livestock grazing on the forest reserves.

Third, even today, the Forest Service and the U.S. Army recognize the monetary value of a grazing permit. This is evidenced with the purchase of the Glenn Allotment by the New Mexico Department of Game & Fish and the condemnation proceedings by the U.S. Army when it acquired the grazing rights and the non-federal lands within the McGregor Range in southern New Mexico. The value placed on the Glenn Allotment was determined by the Forest Service. This documentation can be referenced in the Glenn Allotment file, Gila National Forest. The McGregor Range history is documented in a 1977 report from the Secretary of the Interior and the Secretary of Agriculture.25

Fourth, the Internal Revenue Service (IRS) also recognizes a grazing permit on federal lands as a property right. In Shufflebarger v. Internal Revenue Service, 24 T.C. 980 (1955), the Court held:

That the grazing of livestock on national forests is to be regarded as a substantial, well-established, and indefinitely continuing part of the national forests program, is not, according to our reading of the grazing regulations and the Forest Service Manual, open to question… It seems to us abundantly clear that the statute and regulations contemplate that once the right to a fair and just allotment of grazing land has been acquired under the established procedures, that right, subject to some adjustment if it should become necessary for the protection of the range or for a more equitable distribution among preference holders, is to be regarded as an indefinitely continuing right. [emphasis added]

As determined by the IRS, that “indefinitely continuing right” is taxed upon the death of the owner for the fair market value of the permit. That value is based on the “animal unit” numbers or carrying capacity of the permit which is usually one third (1/3) of the value of the deeded lands.26

Fifth, equitable estates on federal lands are taxed by some of the western states. In California, grazing permits were recognized as equitable property rights in 1850, and are now taxed accordingly.

Therefore, based on the customs and cultures of the people, the promises of the presidents, the historical agreements made with the United States Forest Service, and the value of grazing permits as recognized by the Forest Service itself, the


Internal Revenue Service and by some states, Catron County hereby recognizes that those federal land grazing permits acquired under proper authority to be an “equitable estate.” As such, these property rights shall have the full protection of the Fifth and Fourteenth Amendments to the U.S. Constitution.

C. THE CUSTOM OF MINING IN CATRON COUNTY

The Mogollon mining district is probably named after “…Juan Ignacio Flores Mogollon, governor and captain general in 1712 of the vast and indefinite territory then included under the name New Mexico. As in other mining camps of the Southwest, there are legends of lost Spanish mines, but it is doubtful if the Spanish exploration and control reached into this wild region, which remained a stronghold of the apaches until within the memory of men now living.”

There existed from ancient times a trail running from Tucson, Arizona Territory, through the Mogollon Mountain range and the San Agustin Plains to the Rio Grande. The trail served as a “…highway and a thoroughfare for the aborigine in his forays and marauding expeditions, and latterly (was) used by the Spanish explorer(s) to advantage in connection with (their) base of supplies, at the ancient city of Tucson. The discoveries made during the Spanish occupation in the country did not appeal to the avarice or greed of the Conquistadors, inasmuch as the only mineral noted in all that stretch of country between the Rio Grande and Arizona consisted of salt, and at this early period in the history of mining in American, salt and the coal of the San Austin plains had no place in the economy of the Spanish explorer. A bare announcement of the existence of saline waters and an occasional trip with pack animals, by the most daring and fearless of the pioneers of the Arizona Capital, was the extent of the utilization of the wonderful deposit of salt in Southwest Socorro County at this very early period.”

“At the start of the Civil War, California volunteers—known as the California Column—marched overland across the Southwest desert to help expel Confederates from New Mexico. …California veterans represented the first significant influx of Anglo settlers into New Mexico after the Mexican War, and in the post-Civil War era ex-California soldiers played important roles in the economic development of New Mexico. They were responsible for opening five leading mineral districts, including Elizabethtown, Silver City, Hillsboro, Magdalena, and White Oaks, and they compiled impressive records in farming and pastoral enterprises,…” They also “…labored to improve social conditions within local communities; this generally meant that they worked to reconstruct in New Mexico institutions resembling those found in the more settled ‘American’ states. Nevertheless, many veterans married Hispanic women, thereby helping to bridge cultural differences between Anglo and Hispanic residents.”

“It was the discovery of (salt) which led up to the establishment of Ft. Tularosa and the settlement of the valley of that name and the ‘Plazas’ of the San Francisco River. The traffic increased (on the Tucson – Rio Grande trail) up to a point when the old trail again became the ‘runway’ of the Apaches, who left a trail of blood wherever they went. The trail possessed a geographical significance, which the Indians knew only too well, and which the government was quite slow to recognize. …The constantly increasing outrages and the long list of murders which were being added to day after day, finally caused the government to select a site for a one-company post on the Tularosa. Several months after the site had been selected, in September, 1871, Captain Colson of the 15th U.S. Infantry began the erection of Ft. Tularosa.

“While Captain Colson was a professional soldier, he was a pioneer and a frontiersman by nature, and at once foresaw the possibilities of the region under his command, in a pastoral and an agricultural sense. His duties at this outpost of civilization enforced a complete knowledge of the geography of the surrounding country, and his explorations convinced him and several of his subordinates that the great sheep-raising country of the United States lay within a radius of thirty miles of Ft. Tularosa.

“The first settlements away from the fort were in the “Plaza,” above Alma, in 1874. The post at Tularosa grew to be quite an important station, and in a way with the facilities at hand, the commanding officer kept the trails opened on the north and east side of the Mogollon mountains, leaving the southern and western slopes practically unknown, a veritable terra incognita. The settlements of the country were advancing rapidly, and with the inadequate force to protect a wide and unprotected frontier, General Devine, the commanding officer at Ft. Bayard, appreciated the necessity for an accurate and positive knowledge of the topography of the country, the trails, and watering places, and the most practicable route to the country of the Mogollons, then an unknown wilderness of mountain and plain.”

In 1874, General Devine selected Sergeant James Cooney, of the Eighth Cavalry, to lead a mapping expedition into the Mogollons. As a result of his actions subsequent to his scouting expedition, Cooney is given credit for discovery of the Mogollon mining district. “In the fall of 1875, his enlistment having expired, he (Cooney) revisited the district and located claims that were afterwards developed into the Cooney mine, one of the most famous of the district. Indian troubles prevented Cooney and his little band of associates from doing any regular development work for some time, and it was not until 1879 that the first ore was shipped.

“The valley settlements were almost wiped out in the attack by Victorio and his Apaches in 1880, and Cooney was killed while assisting in the defense of the little settlement of Alma. It was not until after the repulse of Geronimo’s raiders in 1885 that the Apache danger ceased to be acute and mining development could really begin. The last Indian

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fighting in the region was the raid of Apache Kid and his followers in 1906.”

“The fundamental principles governing mining, development by the miners themselves as local customs and rules, were incorporated into the Lode Law of 1866 and the Placer Act of 1870. These statutes did not create a fully developed disposal system, however. For that, the Mining Law of 1872 was necessary. Even then, this statute has required much judicial development. The 1872 statute, embellished by a host of court opinions, statutory exceptions, administrative regulations and decisions, and supplemented by state law, is the present location system. It remains today the chief means of acquiring mining rights in the federal lands; the leasing system for certain nonmetalliferous minerals is the major alternative. Another exception of importance has been carved out by the Materials Act of 1947 which created the sales system for nonmetallic minerals of widespread occurrence.

“The mining Law of 1872 was not merely a codification of its two forerunners. True, it carried forward the basic policies established by them, but it made some changes of substance. It continued the policy of making mineral deposits free and open to exploration and purchase, but it limited the invitation, narrowing it to only “valuable” mineral deposits. The act enlarged the sizes of lode claims and reduced that of individual placer claims. Instead of authorizing location of the lode deposit only, the 1872 law authorized location of a tract of land encompassing the lode or vein. It added the requirement of annual assessment work, and it created legal status for mill sites and tunnel locations.”

“After the menace of Indian attack ceased to be acute, mining proceeded rapidly, and Graton estimates that prior to 1905 the total production was about $5,000,000 in copper, silver, and gold. The mines first developed were those of the veins that crop out in the valley of Mineral Creek, particularly the Cooney mine, and attention was first confined to the small surface patches of rich oxidized ore. The first mines of the silver-bearing sulphide group developed were the Maud S. and Deep Down, in the canyon of Silver Creek below the town of Mogollon. The development of the cyanide process aided the exploitation of the silver ores, and the center of mining activity gradually shifted southward from Cooney, which is now deserted, to Mogollon. As the richer surface ores were exhausted larger operations became the rule, and a gradual consolidation of mining properties took place.”

“The Mogollon district...produced at least 1,710,000 tons of ore through 1942 from about 15,700,000 ounces of silver and 327,000 ounces of gold (were) recovered (9.16 oz/ton silver, and 0.17 oz/ton gold). The majority of the production came between 1904

and 1925. Just over 300,000 tons of ore were produced between 1937 and 1942, the last date of any significant production from the district.”

The mining future for not only the Mogollon mining district, but for all of Catron County is very bright—provided that the proper economic conditions exist. Mogollon was shut down in 1942, not for lack of ore, but because of Federal Order L208 which stopped certain mining operations for the war effort. Today, the gold, silver, and copper reserves in the Mogollon district are enormous. For example, Challenge Mining Co., one of three major companies with holdings at Mogollon, has inferred reserves of about 373,000 tons containing 0.18 oz/ton gold and 9.36 oz/ton silver. At 75 percent overall recovery, approximately $40.7 million reserves could result from mining and milling this ore (using $400/oz for gold and $10/oz for silver). This data excludes Challenge Mining Co.’s Enterprise mine, which has 1,500,000 inferred tons.

In addition to the reserves at Mogollon, Catron County has large coal reserves at Quemado, and marketable slat deposits at Salt Lake, all of which could produce large revenues under proper economic conditions.

D. THE CUSTOM OF TIMBERING IN CATRON COUNTY

The business of harvesting trees has also undergone major changes since the first years of settlement. It has been transformed over the past three decades from a highly decentralized industry comprised and small, family firms to an equally centralized industry dominated by a single firm—a firm whose ownership lies outside of Catron County. Part of the change is attributable to changing market and transportation conditions. However, much of the change is the result of accelerated Forest Service timber harvests during the past several decades. Not only have higher prescribed cuts undermined the custom and culture of small-scale timber operations, it has also thrust Catron County into center stage of an environmental debate which may end the timber industry in the region altogether. Increased depletion of old growth stands of ponderosa pine has raised the issue of Mexican spotted owl viability and has made the future of logging operations in the region questionable at best. The historical custom of timbering in Catron County will be further embellished and completed by the Timber Committee.

E. THE IMPORTANCE OF CUSTOM & CULTURE IN DEFINING COMMUNITY STABILITY

The importance of custom and culture resides ultimately in the principle of community stability. Community Stability is equated to Economic Stability, the condition under which communities can change, adapt, and develop by the dictates of custom and culture rather than by the commands of outside groups and governments. Community stability

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Entails an environment where people and their customs and cultures are left to their own democratic means; where every community is the arbiter of its own survival; where people, subject only to the rule of nature and free markets, are masters of their own destinies.

Obviously, community stability depends on the right of people and communities to pursue and protect the custom and culture most essential to their well-being and most suited to their personal visions. Public policies that injure or diminish custom and culture by injecting elements of outside control (whether intended to be beneficial, e.g. subsidies, or invasive, and destructive, e.g. regulations) are ultimately disruptive of community stability. Such policies take away from local people the degree of independence, political integrity, economic discretion, and responsiveness necessary to retain a way of life commensurate with custom and culture. In Catron County, federal and state land laws and regulations have disrupted community stability by denying both local government and local citizens their legal sovereignty in matters of local land use. A people and a land divided by policies and bureaucracies that undermine custom and culture have, by all historic standards, failed to meet the environmental needs of the land and its wildlife.

For these reasons, the people of Catron County have concluded that a proper goal of comprehensive land use planning is to ensure community stability. In an environment where private lands are increasingly subject to arbitrary federal and state control and where federal and state properties comprise an overwhelming majority of the county’s land base, that goal can best be achieved by empowerment, by protecting the property rights, integrity and independence of every citizen and by making custom and culture an issue of local rather than national consensus. A planning strategy based on these assumptions is attainable only by allowing the people who use and live upon the land to make the crucial decisions that determine their welfare and the welfare of the environment at large. No plan can or, for that matter, should isolate or protect community stability and custom and culture from the force of change in response to the needs and messages of nature and the free market. But this plan should and does insulate Catron County from the abuses stemming from national public policy and from the actions of those whose residencies lie beyond the county but whose ambitions are directed at denying individual and local self-determination. These practices and policies of such outsiders constitute cultural genocide.

There is one last aspect of custom, culture, and community stability that is essential to the goal of the comprehensive plan. A peoples’ custom and culture and the economic stability of their community is not only a political and moral issue of great import, but it is also an obligation placed upon the federal government by law and regulation. As the chapters in this plan make clear, the federal government is constrained by specific statutes and associated regulations from adversely impacting custom, culture, and community stability in Catron County or in any county in the United States.

If fact, the policy of the federal government, from the establishment of forest reserves in Catron County, to the passage of the National Forest Management Act and the Federal
Land policy and Management Act, to the passage of the National Environmental policy Act, of 1969, has repeatedly asserted the right of local communities, the inviolability of custom and culture, and the key consideration of community stability in the promulgation of land use laws, regulations, and policies. The specifics of these laws, regulations and policies are detailed in Chapter One. Here, it is only important to emphasize the powerful tool that custom culture, and community stability offer to the Catron County government.

The comprehensive plan, by articulating the county’s custom and culture and by delineating the critical elements of community stability, offers a means by which the citizens of Catron County can be empowered in all matters of land use. It provides the leverage by which local democracy regains power and sovereignty in matters close to home and most relevant to community welfare and happiness. How and when to exercise this powerful tool in service of local democracy and in pursuit of enhanced environmental conditions is the object of the remaining chapters.
Chapter 3

Community Stability & Catron County Economy

This chapter describes economic conditions, trends, and impacts on the private use of resources, especially on government lands in Catron County.

This chapter starts with an overview of the Catron County economy. Next is presented a portrait of the base economy of the county; that is, carrel and timber production conditions, impacts, and trends. A summary of negative impacts is also discussed. The concluding portion of the chapter presents the basic production requirements necessary for community stability.

Historically, the economic base of the county has been cattle, timber, and mining, primarily on government lands. The future market conditions are rather positive for Catron County timber and cattle production. Yet, Forest Service harvest reductions, along with other government political and regulatory changes, have adversely impacted the economy of Catron County. These impacts have not only affected private businesses, but also the ability of the Catron County government to provide basic services such as road maintenance. These regulatory impacts are also having dramatic consequences on the social and cultural fabric of Catron County citizens.

Citizens have been quite concerned about these impacts, trends, and options. A comprehensive assessment of Catron County resource conditions, economic uses, impacts, trends, and potentials are detailed in a previous study, the Catron County Economic Viability Study.¹ The viability study was initiated by the County Commission to determine the prospects for economic stability and growth in Catron County, and to identify strategies for retaining traditional industries of timber and cattle. The purpose of this chapter is to highlight impacts and trends on the social and cultural aspects of the population and the economy.

To sum up the viability study findings: The traditional economic base of Catron County’s economy, cattle, and timber, are facing major problems because of increased federal government regulations. The timber industry, as a major part of the economy, could be eliminated within two years. The political climate for continued ranching on government lands is not much brighter.

A. THE ECONOMIC SITUATION IN CATRON COUNTY

Over seventy-five per cent of Catron County is government land (New Mexico State Land Office, Forest Service, and the Bureau of Land Management.) The major portion of the economy and employment are directly or indirectly tied to government land economic uses.

Figure 3-1 shows the population levels for the past sixty years. This population has traditionally been supported, primarily, by the productive sectors of cattle, timber, and mining. As discussed in the viability study, the two base industries of cattle and timber have traditionally been the backbone of Catron County’s economy.

![Catron County Historical Population Trends](image)

This figure shows the historical population trend for Catron County for the past 60 years. Catron County was established in 1921 from Socorro County.

**Figure 3-1. Catron County Historical Population Trends**

Figure 3-2 represents a 1990 profile of the productive sectors (private sectors) of the county’s economy. The cattle industry makes up most of the agricultural sector at twenty million dollars in sales (gross receipts). These base industries of cattle and timber have traditionally supported the non-base industries of retail, service trades, governments, and schools.
Catron County’s economy is made up of agriculture and non-agriculture sectors. Agriculture consists primarily of cattle at $20 million in sales; the remaining $1.6 million is other agriculture, primarily hay. In manufacturing and forestry, the Stone Container Reserve timber mill was at $6.9 million in local purchases prior to 1989 at two shifts. Presently, Stone is operating at one shift, resulting in a one half reduction of all purchases. Of the $3.9 million in manufacturing forestry, $3.9 million is in timber, the remaining $.4 million is manufacturing.

Figure 3-2. Catron County Economy

Simply put, cattle and timber as base producers, draw capital into the county to produce beef and timber. This creates dollars that circulate in the communities throughout Catron County. Local expenditures by timber and cattle related jobs support grocery stores, auto parts, bookkeeping, as well as essential government services, such as roads, schools, and law enforcement.

Over the past few years, base industries of cattle and timber have been negatively impacted by federal land decisions. This in turn, has impacted service and retail trades, schools, and local government services (especially county roads), as well as jobs, directly and indirectly related to timber and cattle production. The next two sections describe these impacts in more detail.

Note: All data sources used in the illustrations in this chapter were derived from the viability study reports.
B. TIMBER PRODUCTION

Until recently, timber production levels in Catron County were 25 to 30 million board feet per year. This output resulted in an overall impact of almost nine million dollars to the economy of Catron County. Over $800,000 of timber forest receipts went to support county, schools, and roads. In 1989, the Forest Service established interim management guidelines for the Mexican spotted owl that resulted in the temporary closure of the Stone Container, Inc. sawmill in Reserve, and the subsequent reduction to a half shift in 1990. The Figures below provide an overview of the impacts:

- Figure 3-3 identifies the 1989 revenues collected from the private uses of national timber, compared to the other forest fees collected.

- Figure 3-4 shows the number of jobs supported by the timber mill prior to its closure in 1989.

- Figure 3-5 summarizes the major impacts from the 1990 layoff at the Reserve timber mill.

- Figure 3-6 summarizes projected, cumulative impacts if the Reserve sawmill is closed permanently by 1995.

- Figure 3-7 shows the reduction in total population in Catron County if the mill closes permanently by 1995.

- Figures 3-8 and 3-9 show, comparatively, county road budget revenue sources for 1990 and 1992 (notice the substantial reduction in revenues from Forest Reserve Funds from timber sales between 1990 and 1992).

Reduction in timber harvests are directly related to the social and economic impacts presented in this section. If timber harvests continue to be reduced at the current rate, the Reserve mill will close in the next two years.²

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Grazing fees from 91 permittees

Of the Forest Service fees collected, 25% go to the county’s schools and roads. Catron County’s economy is primarily dependent on national forests as a major source of revenues to support county government, jobs, and businesses. The above figure shows the revenues collected by the Forest prior to the mill shutdown of 1989.

**Figure 3-3. 1989 U.S. Forest Service Fee Collection From Catron County Districts**

The number of jobs in the county that were supported (indirect impact) by the mill when it was in full operation prior to 1990. The Reserve mill, itself, employed 140 to 160 workers at the mill and in the forest.

**Figure 3-4. Number of Jobs Supported by the Reserve Timber Mill Prior to its Closure in 1990**
Reserve Mill 1990 Layoff
Impact of Catron County

- Loss of County industry:
  70 Jobs
  $3 Million in Revenue

- Loss of County Government Revenue:
  $225,000 (from USFS stumpage fees)

- Loss of jobs:
  122 (1/8 of all jobs in Catron County)

- Loss of Wages:
  $1.7 Million (average timber jobs 50% higher than non-timber jobs)

Figure 3-5. Summary of Major Impacts from the 1990 Layoff at the Reserve Mill

Reserve Mill Closure
Projected Impact: 1995

- Loss of timber industry:
  135 jobs
  $8.4 million in revenue

- Loss of County Government Revenue:
  $225,000 from USFS stumpage fees

- Loss of jobs:
  243 (1/4) of all jobs in Catron County

- Loss of wages:
  $3.5 million (average timber jobs 50% higher than non-timber jobs.)

- Unemployment rate increase:
  8.6% to 47.8% (non-agriculture)

Figure 3-6. Summary of Projected, Cumulative Impacts if the Reserve Mill is Closed Permanently by 1995
This graph shows the effect of Catron County Population of the Reserve mill 1990 layoffs and projected employee reductions if the mill closes in 1995. The graph shows the historical population for the county from 1980 through 1988. In August 1989, the mill shut down, affecting 235 jobs. In April 1990 it reopened at half force, rehiring only 118 employees. It is projected that half of these employees will be let go in 1992, and that by 1994 the mill will close completely. If the Gila National Forest reduces timber harvest below 10 million board feet per year, the mill WILL close.

Figure 3-7. Projected Reduction in Total Population in Catron County if the Reserve Mill Closes permanently by 1995
In 1990, 52% of Catron County’s road budget was from Forest Reserve Funds. The 1989 timber harvest reduction did not affect the county until 1991. For years, the Catron County Road Department has received the biggest percentage of its budget from these Forest Reserve Funds (stumpage fees).

**Figure 3-8. Catron County Road Budget Revenue Sources for 1990**

This chart shows the impact on the Catron County 1992 Road Department budget from the 1989 closure and 1990 layoffs at the mill. The road budget is decreased by $175,000.

**Figure 3-9. Catron County Road Budget Revenue Sources for 1992**
C. CATTLE PRODUCTION

Cattle production is a twenty-one million dollar business in Catron County, by far the greatest generator of gross sales in the county. Ranching business is also, by far, the largest small business in the county. With over 165 ranching families, cattle ranching supports a major part of the population, businesses, and government services.

Almost all ranching takes place on government lands with 90 permittees on the national forest. The following figures illustrate the economic importance of cattle ranching in the county, as well as describing the economic impacts on the county if federal grazing fees are increased (above the grazing fee stipulated in the Public Rangelands Improvement Act, or PRIA):

- Figure 3-10 shows all the fees and taxes collected from cattle ranching on government lands.
- Figure 3-11 summarizes all of the cattle fees and taxes that support Catron County government and schools.
- Figures 3-12 and 3-13 show the economic impacts cattle ranching has on local businesses and local government and schools.
- Figure 3-14 provides an overall profile of cattle ranching in Catron County.
- Figures 3-15 and 3-16 show the cumulative impacts on the overall economy and government of Catron County if the grazing fees are raised by 40% by 1993.
- Figure 3-17 shows the impacts on the overall County population if grazing fees increase by 40%.

Over the last ten years, the value of the grazing permit has dropped from a high of $1,500 to $600 per AUM (Animal unit Months). The major cause in the devaluation of the permit is attributed to the uncertainty of future government, ranching, especially rancher concerns over the prospects of grazing fee increase. Most of the ranching in Catron County is small, family-run businesses with less than a two per cent profit margin. A substantial grazing fee increase (beyond the PRIA grazing formula) could effectively eliminate many of the family ranches in the county.³

**Catron County Revenues**

*Cattle Fees & Taxes Collected in 1990 From Ranching on Federal Lands*

- **Gross Receipts Tax**, $293,735
- **USFS Grazing Fee**, $303,198
- **Head Tax**, $40,373
- **County Property Tax**, $234,987
- **BLM Grazing Fee**, $116,488
- **State Grazing Fee**, $360,442

**Total Collections:** $1,349,222

*Figure 3-10. Catron County Fees & Taxes Collected from Cattle Ranching on Government Lands*

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**Catron County Income**

*Fees & Taxes Collected in 1990 From Ranching on Government Lands Which are Used to Support County Government & School*

- **County Government**, $197,441
- **Schools**, $417,283
- **Farm & Range Fund**, $17,290

**Total:** $632,014

*$784.37 per child

*Figure 3-11. Fees & Taxes That Support Catron County Government & Schools*
1990 Catron County  
Summary of Cattle Ranch Impacts

- Economic impacts on Catron County businesses:
  - Gross sales $7 million
  - 85 indirect jobs supported

- Total revenues to local government & Schools:
  - $868,040
  - 41 indirect jobs supported

- Indirect Population supported:
  - 298

- Average value to local businesses:
  - $321 per cow

- Average value to local governments & schools:
  - $32 per cow

- Average income to local schools:
  - $784 per student (from fees & taxes)

- Annual investment into Federal lands:
  - $2.1 million

Figure 3-12. Economic Impacts of Cattle Ranching in Catron County

<table>
<thead>
<tr>
<th>Agency</th>
<th>Revenue</th>
<th>Average Wage</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>$197,441</td>
<td>$17,500</td>
<td>11.3</td>
</tr>
<tr>
<td>State</td>
<td>$253,316</td>
<td>$20,000</td>
<td>12.7</td>
</tr>
<tr>
<td>Schools</td>
<td>$417,283</td>
<td>$25,000</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>$868,040</td>
<td></td>
<td>40.7</td>
</tr>
</tbody>
</table>

- Total population supported:
  - 3.5 average family x 40.7 jobs = 142 population supported.
- Public school enrollment: 532 = $784.37 per child

Figure 3-13. Economic Impacts of Cattle Ranching to Catron County Schools & Government
1990 Catron County Ranching Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cattle ranches</td>
<td>175 (most are family run; 22% Hispanic; 10% women owned)</td>
</tr>
<tr>
<td>Population supported by ranching</td>
<td>613 Ranch family members 420 Employees 1,518 Total</td>
</tr>
<tr>
<td>Catron County population</td>
<td>2,563</td>
</tr>
<tr>
<td>Number of school children</td>
<td>535</td>
</tr>
<tr>
<td>Brood cows in 1990</td>
<td>20,000</td>
</tr>
<tr>
<td>Total cattle inventoried</td>
<td>42,000</td>
</tr>
<tr>
<td>Total Animal Unit Months (AUMs)</td>
<td>25,886 per month: 310,632 per year</td>
</tr>
<tr>
<td>Catron County ranch expenditures</td>
<td>Approximately 30% occur in Catron Co.; 65% occur within the 5 county area.</td>
</tr>
</tbody>
</table>

Figure 3-14. Overall profile of Cattle Ranching in Catron County

Catron County Cattle Impact
From 40% Grazing Fee Increase

<table>
<thead>
<tr>
<th>Description</th>
<th>Current</th>
<th>After Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Owned ranches</td>
<td>165</td>
<td>99</td>
</tr>
<tr>
<td>Number of Cattle</td>
<td>44,000 head</td>
<td>26,400 head</td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>$20.7 million</td>
<td>$12.4 million</td>
</tr>
<tr>
<td>Cattle Industry Wages</td>
<td>$943,500</td>
<td>$566,100</td>
</tr>
<tr>
<td>Cattle Industry Jobs</td>
<td>495</td>
<td>198</td>
</tr>
<tr>
<td>Ranch Population</td>
<td>878</td>
<td>510</td>
</tr>
<tr>
<td>Average Ranch Size</td>
<td>100 to 250 head</td>
<td>60 to 150 head</td>
</tr>
</tbody>
</table>

1990 Fee $1.91; 40% increase $2.73

Figure 3-15. Cumulative Impacts on the Overall economy & Government of Catron County
Cattle Fee & Tax Impact
From 40% Grazing Fee Increase

Total for County Government & Schools = $164,502

This figure shows the projected reduction in fees and taxes that the County would suffer if grazing fees were increased by 40%. Compare this with Figure 3-10, Catron County Revenues: Cattle Fees and Taxes Collected in 1990 From Ranching on Federal Lands.

Figure 3-16. Projected Reduction in Catron County Fees & Taxes if Grazing Fees Increase by 40%

Catron County Population Projections
40% Grazing Fee increases Impact

If the U.S. Congress raises the grazing fee in 1993 from $1.97 to $2.76, resulting in a 40% increase, it will result in a net population less of 1,246. This reduction in population will probably be spread over the subsequent 4 to 5 years.

Figure 3-17. Impacts on the Overall Catron County Population if Grazing Fees Increase by 40%
D. SUMMARY TRENDS & IMPACTS ON CATRON COUNTY

The economic stability of Catron County is being undercut by a series of federal land agency decisions. Timber harvest reductions have resulted in loss of jobs, businesses, and government services. The future of ranching on government lands is also of great concern in Catron County. Recent changes in government land agencies have had negative impacts on commodity uses (cattle and timber), with an emphasis and re-prioritization towards amenity uses, such as outdoor recreation and wildlife values. What does this mean for the future economic stability for Catron County?

D.1 Economic Trends in Catron County

Both timber and cattle production market conditions have rather optimistic forecasts, regionally. The Southwest will remain one of the fastest growing regions in the U.S. into the foreseeable future. Timber demand for small and large diameter trees are increasingly in demand for the Southwest; the demand from Mexico is expected to increase dramatically. Cattle follows a similar forecast both for the Southwest and for Mexico. Yet, government regulations could substantially restrict these resource commodity supplies to meet market demands. What does this mean for Catron County’s economic future? Can it diversify into other, non-commodity, economic alternatives, such as recreation and tourism?

Can tourism/outdoor recreation replace timber and cattle industries in Catron County? A recent analysis of Gila National Forest outdoor recreation demand was completed for 1990. According to the study, tourism/outdoor recreation impacts in Catron County were approximately three million dollars for 1990. Catron County outdoor recreation growth rate to the year 2000 AD will be 5.7% over that ten year period. Hence, by the year 2000, total economic impacts from tourism will be about 4.8 million dollars.

If Catron County stays at the same level of cattle and timber production to the year 2000 AD, the combined economic impact will be over 20 million dollars to Catron County. If timber is eliminated, and cattle production is reduced by 40%, county impacts will be less than 10 million dollars by the year 2000.

To sum up, over the next ten years, tourism/recreation will only generate about $4.8 million in local economic impacts, while timber or cattle will contribute over $20 million to Catron County economy. But if timber is eliminated and cattle is reduced by 40%, it could destroy the capacity of the county to attract tourists to a county that is so economic-

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4 ibid., at 1; Interview with Dave Garrett, Dean, NAU School of Forestry, February 6, 1992; and, Alexander J. Thal, Newcomers to Grant County: An Assessment of Economic Impacts and Business Opportunities”, Southwest Center for Resource Analysis, WNMU, July 1988.

Ally depressed. It would also further erode the county infrastructure that is vital to tourism development.6

Finally, the reduction of timber harvests is already having a negative impact on Catron County businesses. Many of the businesses operating in Catron County depend on a certain “threshold” of population for their business survival.7 Most of the businesses in Reserve may be forced to close if the timber mill shuts down permanently.8 Several stores have closed, two gas stations will be closing, and the Catron County newspaper recently closed.

**D.2 Social Impacts of Catron County**

The above discussion grossly underplays the effects on the existing social and cultural fabric of Catron County. Tourism-related trades and labor requirements would replace the existing timber and cattle related labor pool, geared to production of raw materials. The shift would be to jobs associated with motels, cafes, and other services, away from agriculture related work.

Eight-five percent of the Reserve mill workers were Hispanic. Many of the workers and their families were lifelong residents of the area. Social impacts from job displacement are devastating on family households. Studies have shown that large layoffs, like what occurred in 1989, lead to increases in social disintegration of the family with increased rates of domestic violence, substance abuse, general social alienation, and loss of self esteem.9

**D.3 Cultural Impacts**

Over the past few years, federal agency regulatory decisions have had negative impacts on traditional means of livelihoods in timber, ranching, mining, trapping, and guide/outfitting. If the customary users of federal lands are forced to relocate or drastically alter their traditional ways of making a living, it will destroy the cultural heritage of Catron County.

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Local customs in Catron County result from a long series of actions, repeated over time. These habitual practices represent, in part, customary land uses. County settlement and customary land uses began prior to the establishment of the forest reserve before the turn of the century. Since early settlement, Catron County citizens have used government lands for social and religious purposes. In addition, land resources were sources of medicine, sources of heat, and lumber to build their homes, and as sources of food (game, fish, pinion nuts, etc.)

Customary uses of lands have been the primary means of income generations in Catron County. Traditionally, livelihoods based on land resource uses are typically dependent on more than one source of income from the land. In Catron County, as well as most rural areas in the West, households rely on a variety of ways to make a living. A family might be in cattle ranching, but in the winter, trapping would provide additional income; possibly a third income source could be made from cutting and selling firewood. The variety in income generation encourages ingenuity and self-determination, positive work ethic values, and is part of the local culture.

Finally, these customary uses of the land have instilled a land ethic that includes posterity for future generations to use the land resources wisely. Many of the customary uses of government lands have acquired certain protectable interests over time, starting with the prior rights that the original settlers had upon their first occupancy and land use. These interests, investments, and assets are eroding because of increased government regulations.

D.4 Impacts on Property Rights & Interests

Throughout Catron County there is much concern about threats to private property associated with land and water rights. A general sense prevails that governmental agencies disregard private property interests. Concerns over trespass have ranged from physical trespass by governmental agencies to property damage by elk on private property. The property owner has little recourse for the loss of forage or improvements that are damaged by elk. Northern Catron County private property owners stated that government employees enter onto private property without obtaining permission from the owner.

In addition, over the last ten years there has been a sharp decline in the economic value of a federal grazing permit from $1,500 to $600. This is primarily due to the uncertain future of the permits, and the lack of government protection of the “investment backed expectations” by the private party. In short, when there is a contract between a private party and the government, there is an investment backed expectation by both parties. For example, timber contractor rights to investment backed expectations are not being met when the Forest Service withdraws proposed timber sales without reparation.

Ranchers on government lands also have investment backed expectations in their grazing permit that is tied to their commensurate private property. When grazing permits are
Reduced or grazing fees increased, the economic impact is upon the entire economic unit – and the ability to make a fair return on the investment. For many of the grazing permits, there are also pre-existing rights associated with the ranch and base property, expressed as preference rights. Section Eight consultation between federal agencies and the permittee is also a preference right.

In addition, there is a basic question of fairness and due process in increasing regulation on government lands. In the case of the Mexican Spotted Owl, the Interim zones significantly reduced the wood products industry in Catron County. This was implemented without substantial supporting evidence or public input, causing undue hardship on a county for the sake of a few.

There is also the question of due process. This requires that government agencies work with the rancher in riparian management, instead of eliminating cattle from the stream banks. It means consultation with the timber contractor when that private party’s investment is at stake. It also requires the federal agencies to coordinate with Catron County in assessing the social, economic, and cultural impacts of resource decisions.

**D.5 Impacts on Catron County Government & Local Schools**

When the timber mill was shut down in 1989, county government social programs, public works, and schools were impacted through the loss of revenues. Since 1989, there has been a ripple effect to county government budgets in financing social programs. In addition, county road budgets have lost $175,000 from Forest Receipts Funds. The county’s ability to provide basic road maintenance is seriously jeopardized. This is having an effect on businesses dependent upon primary and secondary transportation networks throughout the county. It also has increased the cost and maintenance of school bus transportation that drive these roads.

In addition to county road impacts, the loss of timber and cattle taxes and fees can drastically affect county government financing of other infrastructure needs such as emergency services, water treatment, and waste management. The Reserve School District has lost over 45 students directly related to the timber mill closure. These families relocated outside the county, negatively affecting the state formula funding, based on student enrollment.

Catron County government is not only being asked to reduce its capacity to provide basic services and public works, it is in serious jeopardy of losing its bonding capacity. If the grazing fees increase as discussed earlier in this chapter, it would reduce the County’s taxable real property value. General obligation bonds are secured by taxable real property. Cattle related taxable values are critical to the County’s ability to finance school bonds and infrastructure.
E. CATRON COUNTY ECONOMY & COMMUNITY STABILITY

E.1 Catron County Economy & Economic Diversification

Historically, the Catron County economy has been dependent upon cattle ranching and timber as the primary base industries. This is also true today as indicated in the 1990 economic profile in Figure 3-2. The Catron County Economic Viability Study was a Forest Service funded economic analysis specifically designed to assess economic diversity in Catron County.10

The study assessed the opportunities and constraints to the base industries, tourism, and potential business diversification. After a two year analysis, the conclusions of the study were: The future of the economy would continue to be dependent upon the base industries of cattle and timber. Tourism should be encouraged, along with other business diversification, but that, economically, there are no substitutes to the base industries of cattle and timber production. Furthermore, the report recommended ways to foster economic development initiatives for diversification of commodity production and for service and retail trades.

Population Stability: The Catron County population was about 2,500 for 1990, representing approximately 728 families. Given a natural birth rate at 2 percent per year to the year 2000, the population level will be 3,050 in Catron County, unless immigration occurs. At present, the population has been reduced because of the timber-related job losses. In Catron County, jobs are difficult to obtain. Many of the children are forced to relocate to distant places.

E.2 Catron County Economic Resource Protection & Development Strategy

The “brain” drain that is occurring in Catron County can be significantly reduced. Economic Development opportunities can be significantly enhanced through resource development and protection strategies. The most immediate and environmentally appropriate economic development strategy is to improve the resource base through time-tested range improvement and timber stand improvement plans and cooperative management projects.

The three areas for coordinated (County Commission and land agencies) planning are:

1. **Range improvement through Piñon-Juniper management** which is designed to increase forage for wildlife and watersheds and increase AUMs.

2. **Timber management through saw log and small diameter tree management** which is designed to increase timber stand improvement, thermal and herbal cover and watershed management, and increase both large diameter and small diameter

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10 ibid., at 1.
tree harvests.

3. **Recreation development** which is designed to increase private business development.

A primary objective of the comprehensive plan is to accommodate economic growth. Hence, the base economy must recover through the three economic stability strategies identified above.

The market demand will significantly increase for food and fiber. It is, therefore, necessary that Catron County develop its naturally endowed resources to the year 2000. The remainder of this chapter specifies the economic levels of production necessary to provide future jobs for the children of Catron County as well as expand its economic base.

**Community Stability and Government Lands:** The major industries of cattle, timber, and recreation incomes are derived from government land use. Most of the lands are under government jurisdiction. The future economy and community stability is dependent upon continued uses of government lands in Catron County.

### E.3 Minimum Levels of Production

To protect Catron Count’s custom and culture, the economic base and other uses of government lands must be maintained at certain production levels to meet market demands. Listed in Figures 3/18 and 3-19 are minimum production levels to protect community stability, accommodate economic growth, and meet society’s market needs for goods and services.

<table>
<thead>
<tr>
<th>Catron County Minimum Production Levels For Community Stability in 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Timber</strong></td>
</tr>
<tr>
<td><strong>Cattle</strong></td>
</tr>
<tr>
<td><strong>Tourism/Rec.</strong></td>
</tr>
</tbody>
</table>

*Note* that the primary economic sectors are specified above. Government is described as a supporting institution designed to foster and support private economic growth, not *replace or compete* against the private sector. The assumption here is that the private sector economic growth depicted above has traditionally supported local, state, and federal government jobs.

*Figure 3-18. Minimum Production Levels for Community Stability in 1990*
### Catron County minimum Production Levels

**For Community stability for 2000 AD**

<table>
<thead>
<tr>
<th>Product</th>
<th>Outputs</th>
<th>Local Value</th>
<th>Jobs</th>
<th>Gov./School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timber</strong></td>
<td>30 mmbf</td>
<td>$8.7 million</td>
<td>140</td>
<td>$1,000,000</td>
</tr>
<tr>
<td><strong>Cattle</strong></td>
<td>372,758 AUMs</td>
<td>$10 million</td>
<td>500</td>
<td>$1,050,000</td>
</tr>
<tr>
<td><strong>Tourism/rec.</strong></td>
<td>1.32 million RVDs</td>
<td>$3.3 million</td>
<td>61</td>
<td>$110,000</td>
</tr>
</tbody>
</table>

**Note:** Over the next ten years the County must foster economic development. This can be achieved by increasing timber harvests (both large and small diameter trees) to the silviculturally prescribed level of 30 mmbf. Cattle can be increased by 20% by proper range management applications. Tourism and outdoor recreation (including outfitting/guides) can be increased at 2% annually to an overall prescribed 18% growth rate to the year 2000.

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**Figure 3-19. Minimum Production Levels for Community Stability for 2000 AD**

### E.4 Federal Obligations to Protect Community Stability

The Forest Service and the BLM have developed resource plans that prescribe outputs. But these outputs or production levels have been modified, affecting the economy, custom, and culture of Catron County. Federal statutes (16 USC § 1604 a, and 43 CFR § 1601.0-5, c,e) require these agencies to coordinate with local governments in the initial planning. It is also required that these federal agencies work in close consultation when there are major changes in their federal resource plans. That has not happened in a coordinated or consistent way.

### E.5 Community Stability, Economic Development & Coordinated Planning

In a nutshell, Catron County’s economy has been dramatically affected by Forest Service decisions that significantly reduced timber harvests. The impacts on Catron County have been well documented in the aftermath of Forest Service timber harvest reductions. At present, timber sales have been reduced by over seventy per cent. There is a real possibility that timber production and supporting wood products industries will come to a standstill.

As cited in chapter one, the federal government has a responsibility to coordinate planning with Catron County Commission for socioeconomic impact and mitigation planning to protect the economic and social stability and cultural richness and diversity of the county. This chapter has specified the overall economic development strategy and identified general production levels for coordinated planning and development for resource protection and economic stability and development.
The Catron County Comprehensive Land Use & Policy Plan

Part III
Implementation of Catron County’s Comprehensive Plan
Chapter 1

Organization & Structure

This chapter shows the organization and structure of the land planning committees and boards which will work through the Catron County Commission to ensure that the purposes of the comprehensive plan are carried out. These boards and committees will generally be responsible for: (1) reviewing federal agency plans and decisions to ensure that agency officials adequately evaluate the effects of those decisions on Catron County’s custom, culture, and economic stability; (2) informing the Catron County Commission of the potential effects of agency actions; and (3) ensuring that adequate mitigation is considered for decisions adversely affecting the County’s well-being. Although the shortest chapter in the comprehensive plan, this chapter turns this plan from one that sits on a shelf into one that can be used to protect the customs, culture, and economic stability of Catron County’s citizens.

A. ORGANIZATION

The citizens of Catron County, by their nature, adhere to and demand democratic participation in their government. Therefore, the operational structure of the comprehensive plan places the people at the top, with all the authority vested in them as shown in Figure 4-1.

By the resolution adopting this plan, the state and federal governmental agencies are hereby notified that the citizens of Catron County expect full compliance with the New Mexico and U.S. Constitutions and the laws and regulations promulgated thereunder. Coordination is the operative concept in these intergovernmental relationships. Coordination, as required by federal laws and regulations, means “equal, of the same rank, order, degree, or importance; not subordinate.”¹

B. STRUCTURE & RESPONSIBILITIES OF THE COMMISSION & THEIR COMMITTEES

The County Commission shall establish, by ordinance, the following committees and boards: (1) the Land Planning Committee; (2) the Livestock Committee; (3) the Timber Committee; (4) the Farming Committee; (5) the Water Advisory Board; (6) the Mining Committee; (7) the Recreation/Business Committee; and (8) the Wildlife Committee. As appropriate for each committee, the Commission shall ensure adequate geographic and industry representation.

The Commission may create additional committees or sub-committees as needed.

**Figure 4-1. Operational Structure of the Catron County Land Planning Committees & Boards**

In addition to the responsibility of creating these committees, the County Commission shall be responsible for:

1. Monitoring each committee’s action to ensure compliance with the ordinances, the state and federal laws, and the will of the people;

2. Establishing a method to forward citizen inquiry or requested action to the appropriate committee;

3. Establishing a mechanism for conflict resolution (conflicts between committees) through the Land Planning Committee;

4. Setting a minimum meeting frequency for each committee;

5. Setting the method of appointment or election for committee members (as appropriate for each committee);

6. Setting the method of selection of alternates to sit in place of regular members of each committee;

7. Setting time lengths for office tenure on the committees;
8. Setting amount of compensation for members, if any; and

9. Establishing methods of removal from office for failure to attend meetings or perform the duties established by the commission.

It is also the Commission’s responsibility to ensure that the various committees are organized and directed by, but not limited to, the following responsibilities, obligations, and structures:

1. Monitoring federal, state, and local governmental agency’s compliance with the comprehensive plan and Catron County ordinances;

2. Monitoring and advising the Catron County Commission of impacts of federal, state, and local legislation and regulatory actions;

3. Monitoring for takings or potential takings of property rights, or infringements on the customs, culture, or economic stability of the county;

4. Establishing a non-binding arbitration board to aid in settling disputes in the subject area of the committee. Said disputes may be between individual citizens of the county or the committee and the federal, state, and local agencies;

5. Keeping (and providing for public inspection) minutes of all meetings and forward said minutes to the County Manager and Commission;

6. Reporting regularly to the Catron County Commission on the activities and findings of the committee;

7. Conducting all meetings under the “Open Meetings Act”;

8. Keeping (and providing for public access) information, publications, and data pertinent to their jurisdictions;

9. Preparing educational materials for schools and the public on the subject of the committee;

10. Preparing educational materials for schools and the public on the subject of the committee;

11. Performing other duties as may be assigned by the Commission.
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The Catron County
Comprehensive
Land Use & Policy Plan

Appendices
Appendix 1

The Legal & Administrative Environment

The legal foundation for the Catron County Comprehensive Plan dates back to 1803. To correctly interpret the laws cited in the comprehensive plan, it is necessary to apply word definitions which were in effect when the laws were promulgated. For example, a Supreme Court decision of 1855 stated that the meaning of the words of the Guadalupe-Hidalgo Treaty were to be locked forever under the meaning of the words of the ancient treaty of the Louisiana Purchase of 1803. Applicable definitions have been provided in the Glossary at the front of this document.

A. INTRODUCTION

County and local governments in rural America are facing challenges to the viability of their economies and the well-being of their citizens. Western states are especially vulnerable to these challenges because of the presence of large amounts of lands under the ownership and administration of various federal agencies. County governments and their rural constituents are rapidly losing their sovereignty and tax base. Erosion of the tax base results in less money available for schools, roads, and other locally determined and desired services. Two common reasons for county economic hardships resulting from federal programs and actions are: 1) the transfer of private property ownership from tax-paying citizens to the federal government and tax-exempt organizations, and 2) the loss of industries, jobs, and tax revenues that are dependent on the use of the private and federal lands. Adverse spin-offs of this basic problem include loss of sovereignty and self-determination, loss of civil rights and private property rights, and diminution of democracy. County governments, however, do have options available to address their needs as provided in the U.S. Constitution and through existing federal and state laws and regulations.

The U.S. Constitution was drafted by 55 delegates from the 13 original states. It was signed on September 17, 1787, by 39 of the delegates, but only after agreement that the Constitution would be amended by a Bill of Rights. The delegates wanting the Bill of Rights feared the Constitution alone did not limit the powers of the federal government to the extent desired. The states later ratified the ten amendments of the Bill of Rights which became effective December 15, 1791.

Technically, it is a misnomer to call the first ten amendments to the Constitution a Bill of Rights. They were intended to be a declaration of prohibitions against the federal government. “In the minds of the Founders, usurpation and intervention by the federal government in the affairs of the states and the people were the most ominous threats to
The Founders also did not want to have the federal government serve as the watchdog over the states’ responsibility to protect the rights of their citizens. Thus, the Founders wrote a Constitution, including a Bill of Rights, that strictly limited the powers of the federal government and allocated many powers to the states and reserved the remaining powers to the American people. The Tenth Amendment clearly articulates these principles:

The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.

The sovereign states were to exist free from external control except for the powers specifically granted to the federal government in the Constitution. The federal government’s role was largely to guarantee that the states could exist as sovereign governments, to maintain armed forces for national defense, and to facilitate the coordination of matters affecting the states, collectively.

The powers and the rights vested to the states by the U.S. Constitution guaranteed them the basic powers and rights of self-determination. The state of New Mexico recognizes its rights and its obligation as articulated in the state Constitution.

The state of New Mexico is an inseparable part of the federal union, and the constitution of the United States is the supreme law of the land.

All political power is vested in and derived from the people: all government of right originates with the people, is founded upon their will and is instituted solely for their good.

The people of the state have the sole and exclusive right to govern themselves as a free, sovereign and independent state.

All persons are born equally free, and have certain natural, inherent and inalienable rights, among which are the rights of enjoying and defending life and liberty, of acquiring, possessing, and protecting property, and of seeking and obtaining safety and happiness.

The states exercise their sovereign rights and powers by establishing political subdivisions within their borders to allow for local self-determination. The political subdivisions in New Mexico are called counties and the counties are granted powers to function. In general, “included in this grant of powers to the counties are those powers

2 *ibid.*
3 Constitution of New Mexico, Article II, Section 1.
4 Constitution of New Mexico, Article II, Section 2.
5 Constitution of New Mexico, Article II, Section 3.
6 Constitution of New Mexico, Article II, Section 4.
necessary and proper to provide for the safety, preserve the health, promote the prosperity and improve the morals, order, comfort, and convenience of any county or its inhabitants.” The citizens in each county elect a county government (board of county commissioners). “The board of county commissioners may make and publish any ordinance to discharge these powers not inconsistent with statutory or constitutional limitations placed on counties.” Collectively, all the counties, acting through their elected county governments, represent all the people to the governing body of the state.

Congress has demonstrated a long history of concern for the protection of custom, culture and economies of those local communities and counties adjacent to or containing federal lands. Federal laws and their implementing agency regulations provide a window of opportunity for county governments.

Although the economic stability of counties is an important consideration in the management of federal lands, neither the Congress, the courts, nor the agencies in charge of federal lands have specifically defined “economic or community stability.” These governmental bodies and land management agencies cannot define “economic or community stability” because there can be no national definition. Community economic stability must be defined on a county level by those who are dependent on the use of federal natural resources for economic survival.

Pertinent federal laws and regulations require that plans for federal natural resource management that included activities, programs, and efforts be both coordinated and consistent with county land use plans and policies. Therefore, in order to take advantage of these coordination regulations, county governments must legally adopt a land use plan and land use policies. It is important to remember that the development of a county land use plan is completely different than completion of a county zoning regulation. Zoning entails the description of certain uses that will be allowed on specific parcels of land. Land use plans describe the general industrial basis necessary for economic support of the county. Although zoning may be based upon land use planning, zoning does not have to be completed, or even contemplated, for county government to participate in federal planning processes through the completion of a county land use plan.

In part, the Catron County Comprehensive Land Use and Policy plan, Part II describes the amount and type of commodity, recreational, or other industrial or land uses that provide the tax base for Catron County. Accordingly, the comprehensive plan defines the custom, culture, and the economic and community stability of Catron County.

Although the federal laws and regulations are written to give county government the opportunity to influence federal decisions and actions, it would serve little purpose to merely attach, as appendices to this document, copies of relevant federal laws and regulations in their entirety. Those documents are readily available, but because of their legalistic and cumbersome nature, they are not now used by county governments for the

7 4-37-1 NMSA 1978.
8 ibid.
purpose to which the comprehensive plan is addressed. However, it is imperative for county government to become thoroughly familiar with the content of the laws and regulations in order to take advantage of the opportunities they provide. Thus, the following review provides an explanation, and a guiding path, for county government by presenting the essential elements of the most important laws and regulations impacting land use in Catron County. Once county government is familiar with the pertinent laws, and the opportunities they offer, it is poised to act as necessary in defense of custom, culture, and economic and community stability.

B. FEDERAL LAWS & REGULATIONS & AFFECTED AGENCIES

The meaning of several terms should be understood when reading federal statutes and regulations. Federal statutes are enacted by Congress. Statutes are relatively permanent because they can only be abolished or amended by Congress in a process which is long and arduous, though not impossible. Regulations are promulgated by various agencies of the federal government to carry out the intent process that allows and considers public input. The final regulations provide the guidelines and processes used by the agencies to carry out the statutes for which they are responsible. Regulations can be changed more easily then statutes because their content is controlled by the executive branch of government. Nevertheless, once regulations are in effect, the agencies are required to follow them. Sometimes, further guidance is necessary to carry out regulations. Agencies can then develop internal policies for guidance to accomplish their mission.

The following definitions, taken from Black’s Law Dictionary, are important to keep in mind when dealing with federal laws and regulations. When used in statutes or contracts, the term “shall” is generally imperative or mandatory. It excludes the idea of discretion and imposes a duty which may be enforced when public policy favors this meaning, or when addressed to public officials, or where a public interest is involved, or where the public or persons have rights that should be exercised or enforced. When used in statutes and presumably federal rules, the term “may” as opposed to “shall” usually indicates discretion or choice between two or more alternatives. The word “coordinate” means “equal, of the same rank, order, degree, or importance; not subordinate.” Thus, when the term “coordinate” is used in the statutes and regulations, the federal agencies must involve and consider county government land use plans and policies on equal footing. The county plans and policies should have the same weight in the decision-making process as federal land use plans.

The concept of “coordination” is important to bear in mind because county insistence on adherence to it by the agencies may be necessary. Although county governments cannot require the federal agencies to make specific decisions or to take action prohibited by federal law, county governmental plans and policies must be equally considered with

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other land management alternatives. If conflicts occur between the local government and the federal agency, the agency must seriously consider alternative actions to avoid the conflict. Unlike the word coordinate, the terms “cooperate” and “consult” do not require extraordinary efforts by the federal agencies to meet county plans and policies. The federal agencies merely need to make contact, obtain input, and use the input at their discretion. Congress does not use the word “coordinate” liberally. When the word “coordinate” is used, Congress is according special status to the affected party to be coordinated with—in this case county government.

Although different terms are used, the statutes and regulations require the federal agencies to consider, and protect from adverse impacts when possible, the economic structure of counties. However, wording is also present in the statutes and regulations indicating that the agencies must consider and protect more than just economic structures. For example, the national Environmental Policy Act requires all federal agencies to assure safe, healthful, productive, and aesthetically and culturally pleasing surroundings and to preserve cultural aspects and maintain an environment supporting a variety of individual choice. Regulations specific to the U.S. Forest Service require the agency to consider effects of its actions on communities adjacent to or near the forest, and on employment in affected areas. Similarly, the U.S. Bureau of Land Management regulations require that agency to consider the degree of dependence counties have on resources from public lands. Compliance with the spirit and the letter of the statutes and regulations requires that the agencies must consider, preserve, and protect from adverse impacts both the economic and the social well-being of the county. In other words, the federal agencies must account for a community’s way of life—the delicate fabric holding families together—as well as a community’s economic base before taking actions that might prove harmful. The comprehensive plan refers to this federal obligation in terms of protecting and preserving either “economic stability” or community stability,” depending on the context of the subject under discussion.

**B.1 National Environmental Policy Act (NEPA)**

The National Environmental Policy Act (NEPA) is the basic national charter requiring federal protection of the environment. It establishes policies, sets goals, and provides the means for carrying out policies and attaining goals.

**B.1.1 NEPA: Congressional Declaration of Policy**

NEPA is extremely important to county governments and local communities. As the umbrella environmental law, NEPA declares:

> …that it is the continuing policy of the Federal Government, in cooperation with State and local governments, ... to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources

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10 42 USC 4331(a).
to the end that the nation may—\textsuperscript{11} ... assure for all Americans safe, healthful, productive, and aesthetically and \textbf{culturally pleasing surroundings},\textsuperscript{12} and “…\textbf{preserve} important historic, \textbf{Cultural}, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice.”\textsuperscript{13} [Emphasis added]

Three major federal statutes, the national Environmental Policy Act, the National Forest Management Act, and the Federal Land Policy and Management Act, mandate that allocation decisions of natural resources and land uses on public lands must be made through a comprehensive public planning process. The complex mixture of data collection, analysis of impacts, review of alternatives, and implementation of strategies includes extensive public review and involvement by county government. A negotiated attempt at planning and agreement between the federal agency and county government does not solve all problems or satisfy all participants. For this reason, litigation by the county may be necessary if federal agencies fail to meet the mandates stated in the statutes as explained below.

\textbf{B.1.2 NEPA protection of Custom \& Culture}

NEPA not only requires the federal government to consider the impacts of its actions on the environment, but it also requires federal agencies to preserve culture and heritage. Significantly, Congress’ policy regarding NEPA states that cooperation and coordination will occur with “local governments,” and that the culturally pleasing surroundings and cultural aspects of community will be preserved so as to support diversity and variety of individual choice. Clearly, this policy can only be carried out at the county level—through county government that encompasses multiple communities, all possessing a common culture and similar pleasing surrounding that require protection.

To determine what will be “preserved” in a county under NEPA consideration must be given to the meaning of the word “culture.” Culture is the integrated pattern of human knowledge and behavior passed to succeeding generations; is the \textbf{customary} beliefs, social forms, and material traits of a social group.\textsuperscript{14} A custom is “A usage or practice of the people, which, by common adoption and acquiescence, and 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.\textsuperscript{15}

NEPA provides county governments the opportunity to preserve their local customs and culture. However, each county must determine and define its local custom and culture and then act to protect them. Once a county government has identified and defined its

\begin{footnotes}
\item[11] 42 USC 4331(b).
\item[12] 42 USC 4331(b)(2).
\item[13] 42 USC 4331(b)(4).
\end{footnotes}
custom and culture, it must inform the federal agencies of the definition and request that
custom and culture be preserved under NEPA. State agencies might also be informed
and requested to comply accordingly. If numerous counties in a state present a united
approach, state governors and state agencies will be under greater pressure to comply.

B.1.3 Compliance of Federal Agencies with NEPA

NEPA “contains ‘action-forcing’ provisions to make sure that federal agencies act
according to the letter and the spirit of the Act.”16 “Federal agency” is defined as “all
agencies of the Federal Government. It does not mean the Congress, the judiciary, or the
president, including the performance of staff functions for the president in his Executive
Office.”17

Congress clearly intended that federal agencies meet their responsibilities under NEPA.
To this end, Congress “created in the Executive Office of the President a Council on
Environmental Quality…”18 The Council on Environmental Quality (CEQ) was designed
to be a watchdog over the federal agencies. NEPA states:

It shall be the duty and function of the Council—… (3) to review and
appraise the various programs and activities of the Federal Government in
the light of the policy set forth in subchapter I of this chapter for the
purpose of determining the extent to which such programs and activities
are contributing to the achievement of such policy, and to make
recommendations to the president with respect thereto.19

B.1.4 mandate to Federal Agencies under NEPA

NEPA mandates specific performance requirements which are crucial to the
comprehensive plan:

All agencies of the Federal Government shall…© include in every
recommendation or report on proposals for legislation and other major
Federal actions significantly affecting the quality of the human
environment, a detailed statement by the responsible official on…

i. The environmental impact of the proposed action,
ii. Any adverse environmental effects which cannot be avoided
should the proposal be implemented,
iii. Alternatives to the proposed action,

16 40 CFR 1500.1(a)
17 40 CFR 1508.12.
18 42 USC 4342.
19 42 USC 4344(3).
iv. the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and
v. any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and view of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, and shall accompany the proposal through the existing agency review processes;

(G) Make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment.20

County governments should be alert to federal proposals, plans, legislation, or other major federal actions and request, when necessary, that an environmental impact statement be prepared (if one is not otherwise prepared) by the involved federal agency.

Although NEPA is explicit in its Congressional mandates to the federal agencies, the CEQ has passed NEPA and agency planning regulations “…to tell federal agencies what they must do to comply with the procedures and achieve the goals of the Act. The President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements…”21

A major objective of the NEPA regulations is:

(b) Emphasizing cooperative consultation among agencies before the environmental impact statement is prepared rather than submission of adversary comments on a completed document.22

Agencies shall integrate the NePA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. Each agency shall:

20 42 USC 4332(2)©(i)-(v) and (2)(G).
21 40 CFR 1500.0(a).
22 40 CFR 1501.1(b).
(d) Provide for cases where actions are planned by private applicants or other non-Federal entities before Federal involvement so that:

(2) The Federal agency consults early with appropriate State and local agencies and Indian tribes and with interested private persons and organizations when its own involvement is reasonably foreseeable.23

NEPA requires agencies to circulate both the draft and final environmental impact statements, except for certain appendices and unaltered statements, to appropriate Federal, State, and local agencies authorized to develop and enforce environmental standards.24 Further, NEPA imposes the following guidelines on federal agencies regarding cooperation with county governments to integrate environmental impact statements with local planning processes and to eliminate duplication:

(b) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and State and local requirements, unless the agencies are specifically barred from doing so by some other law. Except for cases covered by paragraph (a) of this section, such cooperation shall to the fullest extent possible include:

(1) Joint planning processes.
(2) Joint environmental research and studies.
(3) Joint public hearings (except where otherwise provided by statute).
(4) Joint environmental assessments.

(c) Agencies shall cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and comparable State and local requirements, unless the agencies are specifically barred from doing so by some other law. Except for cases covered by paragraph (a) of this section, such cooperation shall to the fullest extent possible include joint environmental impact statements. In such cases one or more Federal agencies and one or more State or local agencies shall be joint lead agencies. Where State laws or local ordinances have environmental impact statements requirements in addition to but not in conflict with those in NEPA, Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws so that one document will comply with all applicable laws.

(d) To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency

23 40 CFR 1501.2(d)(2).
24 40 CFR 1502.19(a).
of a proposed action with any approved State or local plan and laws
(whether or not federally sanctioned). Where an inconsistency exists, the
statement should describe the extent to which the agency would reconcile
its proposed action with the plan or law.\textsuperscript{25}

The NEPA process is intended to help public officials make decisions that are based on
environmental consequences, and that take actions to protect, restore, and enhance the
environment and preserve local custom and culture. NEPA and the implementing CEQ
regulations require all federal agencies to coordinate with county governments as
outlined above. County governments can always resort to use of the NEPA process
regardless of the federal agency, law, program, or action involved. Significantly,
pertinent federal agencies (e.g., U.S. Forest Service, U.S. Bureau of Land Management,
U.S. Fish and Wildlife Service, and U.S. Park Service) are mandated in a wide range of
laws to comply with NEPA. Accordingly, the agencies have promulgated regulations to
guide them through the NEPA process. The laws and regulations guiding agency policies
and programs vary in their approach to the specific requirements, but they add to the
letter and spirit of NEPA and its implementing CEQ regulations.

\textbf{B.2 U.S. Forest Service Land * Resource Planning/NEPA Processes}

Laws requiring the Forest Service (FS) to consider county governments in its planning
processes have become more explicit over time. For example, the Multiple Use and
Sustained Yield Act of 1960 directed the Secretary of Agriculture “to develop and
administer the renewable surface resources of the national forests for multiple use and
sustained yield of the several products and services obtained therefrom.”\textsuperscript{26} However, the
act merely authorized the Secretary of Agriculture “to cooperate with interested State and
local governmental agencies and others in the development and management of the
national forests.”\textsuperscript{27} The Forest and Rangeland Renewable Resources Planning Act of
1974 (RPA) strengthened the opportunity for county input. In Section 3, the RPA
recognized the importance of renewable forest and range resources, and directed the
Secretary of Agriculture to prepare a Renewable Resource Assessment. The RPA
elevated the relationship between the FS and the county governments from one of
cooperation to one of coordination with the following requirement:

6(a) As a part of the Program provided for by section 3 of this Act, the
Secretary of Agriculture shall 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
planning processes of State and local governments and other Federal
agencies.\textsuperscript{28} [Emphasis added]

\textsuperscript{25} 40 CFR 1506.2(b),(c),(d).
\textsuperscript{26} 16 USC 529.
\textsuperscript{27} 16 USC 530.
\textsuperscript{28} 16 USC 1604(a).
The RPA was extensively amended by the National Forest Management Act of 1976. Significantly, Section 6(a) of the RPA, quoted above, was not amended. The National Forest Management Act requires that each plan developed “be revised (A) from time to time when the Secretary finds conditions in a unit have significantly changed, but at least every fifteen years.” The FS must coordinate land use planning efforts with these of county governments under this act of through the NEPA process.

The FS has promulgated regulations for developing, adopting, and revising land and resource management plans for the National Forest System. The regulations prescribe how land and resource management planning will be conducted on National Forest System lands. The purposes and principles involved regarding planning coordination with county governments and preservation of culture and economic and community stability are articulated as follows:

The resulting plans shall provide for multiple use and sustained yield of goods and services from the National Forest System in a way that maximizes long term net public benefits in an environmentally sound manner.

(b) Plans guide all natural resource management activities and establish management standards and guidelines for the National Forest System. They determine resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. Regional and forest planning will be based on the following principles:

(5) **Preservation of** important historic, cultural, and natural aspects of our national heritage;

(9) **Coordination with** the land and resource planning efforts of other Federal agencies, **State and local governments**, and Indian tribes;

(13) Management of National Forest System lands in a manner that is sensitive to **economic efficiency**; and

(14) Responsiveness to changing conditions of land and other resources and to changing **social and economic demands of the American people**. [Emphasis added]

These regulations apply to the National Forest System, which includes special areas, such as wilderness, wild and scenic rivers, national recreation areas, and national trails. Whenever the special areas require additional consideration by the Forest Service, this

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29 16 USC 1604(f)(5).
planning process applies.\textsuperscript{32} The regulations stipulate that each forest supervisor shall develop a forest plan for administrative units of the National Forest System.\textsuperscript{33} An administrative unit for this purpose can be a national forest, or all lands for which a forest supervisor has responsibility (e.g., a national forest and one or more special areas), or a combination of national forests within the jurisdiction of a single forest supervisor (see fn.25).

Specific processes and requirements for accomplishing the purposes and principles of planning coordination with county governments and the protection of culture and community stability are provided as follows:

(a) The responsible line officer shall \textbf{coordinate} regional and forest planning with the equivalent and related planning efforts of other Federal agencies, \textit{State and local governments}, and Indian tribes.

(c) The responsible line officer shall review the planning and land use policies of other Federal agencies, State, and local governments, and Indian tribes. The results of this review shall be displayed in the environmental impact statement for the plan (40 CFR 1502.16©, 1506.2). The review shall include—

(1) Consideration of the objectives of other Federal, State, and local governments, and Indians [sic] tribes, as expressed in their plans and policies;

(2) An assessment of the interrelated impacts of these plans and policies;

(3) A determination of how each Forest Service plan should deal with the impacts identified; and,

(4) Where conflicts with Forest Service planning are identified, consideration of alternatives for their resolution.

(d) In developing land and resource management plans, the responsible line officer \textbf{shall meet with} the designated State official (or designee) and representatives of other Federal agencies, \textit{local governments} and Indian tribal governments \textit{at the beginning of the planning process to develop procedures for coordination}. As a minimum, such conferences shall also be held after public issues and management concerns have been identified and prior to recommending the \textbf{preferred alternative}. Such conferences may be held in conjunction with other public participation activities, if the opportunity for government officials to participate in the planning process is not thereby reduced.

\textsuperscript{32} 36 CFR 219.2
\textsuperscript{33} 36 CFR 219.4(3).
(e) In developing the forest plan, the responsible line officer shall seek input from other Federal, State, and local governments, and universities to help resolve management concerns in the planning process and to identify areas where additional research is needed. This input should be included in the discussion of the research needs of the designated forest planning area.

(f) A program of monitoring and evaluation shall be conducted that includes consideration of the effects of National Forest management on land, resources, and communities adjacent to or near the National Forest being planned and the effects upon National Forest management of activities on nearby lands managed by other Federal or other government agencies or under the jurisdiction of local governments. [Emphasis added]

The agency regulations also reflect the specific requirements to protect the economic and community stability of a county. The preparation, revision, or significant amendment of a forest plan includes the formulation of reasonable alternatives according to NEPA procedures. The alternatives must be in sufficient detail to provide the following information regarding economic and community stability:

The physical, biological, economic, and social effects of implementing each alternative considered in detail shall be estimated and compared according to NEPA procedures. These effects include those described in NEPA procedures (40 CFR 1502.14 and 1502.16) and at least the following.

(3) Direct and indirect benefits and costs, analyzed in sufficient detail to estimate—
   (iii) the economic effects of alternatives, including impacts on present net value, total receipts to the Federal Government, direct benefits to users that are not measured in receipts to the Federal Government, receipt shares to State and local governments, income, and employment in affected areas;... [Emphasis added]

The significant physical, biological, economic, and social effects of each management alternative shall be evaluated in detail. [Emphasis added]

Further:

The evaluation shall include a comparative analysis of the aggregate effects of the management alternatives and shall compare present net value,

34 36 CFR 219.7(a),(c)(1),(2),(3),(4),(d),(e),(f).
35 36 CFR 219.12(a),(b),(c),(d),(e),(f).
36 36 CFR 219.12(g).
37 36 CFR 219.12(h).
Social and economic impacts, outputs of goods and services, and overall protection and enhancement of environmental resources (see fn. 29). [Emphasis added]

Upon implementation, the plan shall be evaluated to determine how well objectives have been met and how closely management standards and guidelines have been applied. Necessary changes in management direction, revisions, or amendments to the forest plan as necessary, shall be recommended to the forest supervisor.\textsuperscript{38}


The guiding statute for the Bureau of Land Management (BLM) to administer public lands is the Federal Land Policy and Management Act of 1976 (FLPMA). The statute defines the term “public lands” as any land and interest in land owned by the United States within the several States and administered by the Secretary of the interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except: (1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos. FLPMA specifically requires the BLM to prepare land use plans:

(a) The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and, when appropriate, review land use plans which provide by tracts or areas for the use of the public lands. Land use plans shall be developed for the public lands regardless of whether such lands previously have been classified, withdrawn, set aside, or otherwise designated for one or more uses.\textsuperscript{39}

It is significant to note that FLPMA provides explicit directives for the BLM to coordinate public land use planning with county governments, and to ensure that federal land use plans are consistent with local plans to the maximum extent possible. The statute details the BLM’s mandate as follows.

(c) In the development and revision of land use plans, the Secretary shall—

(9) to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the State and local governments within which the lands are

\textsuperscript{38} 36 CFR 219.12(k).

\textsuperscript{39} 43 USC 1712(a).
located, including, but not limited to, the statewide outdoor recreation plans developed under the Act of September 3, 1964 (78Stat.897), as amended, and of or for Indian tribes by, among other things, considering the policies of approved State and tribal land resource management programs. In implementing this directive, the Secretary shall, to the extent he finds practical, keep apprised of State, local, and tribal land use plans; assure that consideration is given to those State, local, and tribal plans that are germane in the development of land use plans for public lands; assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans, and shall provide for meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands, including early public notice of proposed decisions which may have a significant impact on non-Federal lands. Such officials in each State are authorized to furnish advice to the Secretary with respect to the development and revision of land use plans, land use guidelines, land use rules, and land use regulations for the public lands within such State and with respect to such other land use matters as may be referred to them by him. Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.

(f) The Secretary shall allow an opportunity for public involvement and by regulation shall establish procedures, including public hearings where appropriate, to give Federal, State, and local governments and the public, adequate notice and opportunity to comment upon and participate in the formulation of plans and programs relating to the management of the public lands.40 [Emphasis added]

FLPMA provides additional requirements regarding the opportunity for county governments to participate in, and to influence BLM land use policies, plans, and programs. Land conveyances are addressed as follows:

Sec. 210. At least sixty days prior to offering for sale or otherwise conveying public lands under this Act, the Secretary shall notify the Governor of the State within which such lands are located and the head of the governing body of any political subdivision of the State having zoning or other land use regulatory jurisdiction in the geographical area within which such lands are located, in order to afford the appropriate body the opportunity to zone or otherwise regulated, or change or amend existing zoning or other regulations concerning the use of such lands prior to such

40 43 USC 1712(c)(9),(f).
conveyance. The Secretary shall also promptly notify such public officials of the issuance of the patent or other document of conveyance for such lands.\textsuperscript{41}

FLPMA provides further:

That the Secretary shall not make conveyances of public lands containing terms and conditions which would, at the time of the conveyance, constitute a violation of any law or regulation pursuant to the State and local land use plans, or programs.\textsuperscript{42}

FLPMA is also clear regarding its effect on existing rights as follows:

(g) Nothing in this Act shall be construed as limiting or restricting the power and authority of the United States or—

(6) as depriving any State or political subdivision thereof of any right it may have to exercise civil and criminal jurisdiction on the national resource lands;\textsuperscript{43} or as amending, limiting, or infringing the existing laws providing grants of lands to the States.

(h) All actions by the Secretary concerned under this Act shall be subject to valid existing rights.\textsuperscript{44}

Regulations have been issued regarding resource and land use planning by the BLM. The regulations are more detailed and specific than those pertaining to the FS in the matters of coordination with county governments and protection of custom, culture, and economic and community stability of counties.

BLM regulations use the terms “consistent” and “local government” which are defined:

(c) Consistent means that the Bureau of land management plans will adhere to the terms, conditions, and decisions of officially approved and adopted resource related plans, or in their absence, with policies and programs, subject to the qualifications in Section 1615.2 of this title.

\textsuperscript{41} 43 USC 1720.
\textsuperscript{42} 43 USC 1718.
\textsuperscript{43} The term “national resource lands” is synonymous with the term “public lands” according to the Joint Statement of the Committee of Conference regarding the drafting of FLPMA. Legislative History of the Federal Land Policy and Management Act of 1976 (Public Law 94-579), 1978, Pub, No, 95-99; p 927.
\textsuperscript{44} 43 USC 1701.
(e) **Local government** means any political subdivision of the State and any general purpose unit of local government with resource planning, resource management zoning, or land use regulation authority.\(^{45}\)

Relevant plans of the BLM, which are subject to coordination with county government and county land use plans, are called “resource management plans.” However, amendments to older plans such as management framework plans are also subject to coordination requirements.\(^{46}\) Approval of a resource management plan is considered a major federal action significantly affecting the quality of the human environment. Thus, the NEPA process applies.\(^{47}\)

BLM regulations are specific in requiring **coordination** and **consistency** between federal land use plans and local plans. If conflicts exist, or local plans do not exist, the regulations require BLM to make every reasonable effort to resolve the conflicts and be consistent with existing local policies and programs. In order to convey the spirit as well as the letter of the regulations, pertinent elements are quoted below:

**Section 1610.3-1. Coordination of planning efforts.**

(a) In addition to the public involvement prescribed by Section 1610.2 of this title the following **coordination** is to be accomplished with other Federal agencies, **State and local governments**, and Indian tribes. The objectives of the coordination are for the State Directors and District and Area Managers to keep apprised of non-Bureau of Land management plans; assure that consideration is given to those plans that are germane in the development of resource management plans for public lands; assist in resolving, to the extent practicable, inconsistencies between Federal and non-Federal government plans; and provide for meaningful public involvement of other Federal agencies, State, and local government officials, both elected and appointed, and Indian tribes in the development of resource management plans, including early public notice of proposed decisions which may have a significant impact on non-Federal lands.

(b) State Directors and District and Area Managers shall provide other Federal agencies, State and local governments, and Indian tribes opportunity for review, advice, and suggestion on issues and topics which may affect or influence other agency or other government programs. To facilitate coordination with State governments, State Directors should seek the policy advice of the Governor(s) on the timing, scope, and coordination of plan components; definition of planning areas; scheduling on public involvement activities, and the multiple use opportunities and constraints on public lands. State directors may seek written agreements with Governors or their

\(^{45}\) 43 CFR 1601.0-5(c),(e).
\(^{46}\) 43 USC 1712(d); 43 CFR 1610.8(a)(3)(ii).
\(^{47}\) 43 CFR 1601.0-6.
designated representatives on processes and procedural topics such as exchanging information, providing advice and participation, and timeframes for receiving State government participation and review in a timely fashion. If an agreement is not reached, the State Director shall provide opportunity for Governor and State agency review, advice and suggestions on issues and topics that the State Director has reason to believe could affect or influence State government programs.

(c) In developing guidance to District Managers, in compliance with section 1611 of this title, the State director shall:

1. Ensure that it is as consistent as possible with existing officially adopted and approved resource related plans, policies, or programs of other Federal agencies, State agencies, Indian tribes, and local governments that may be affected as prescribed by Section 1610.3-2 of this title;

2. Identify areas where the proposed guidance is inconsistent with such policies, plans or programs and provide reasons why the inconsistencies exist and cannot be remedied; and

3. Notify the other Federal agencies, State agencies, Indian tribes, or local governments with whom consistency is not achieved and indicate any appropriate methods, procedures, actions, and/or programs which the State Director believes may lead to resolution of such inconsistencies.

(d) A notice of intent to prepare, amend, or revise a resource management plan shall be submitted, consistent with State procedures for coordination of Federal activities, for circulation among State agencies. This notice shall also be submitted to Federal agencies, the heads of county boards, other local government units and Tribal Chairman or Alaska native Leaders that have requested such notices or that the responsible line manager has reason to believe would be concerned with the plan or amendment. These notices required under Section 1610.2(b) of this title.

(e) Federal agencies, State and local governments, and Indian tribes shall have the time period prescribed under Section 1610.2 of this title for review and comment on resource management plan proposals. Should they notify the District or Area Manager, in writing, of what they believe to be specific inconsistencies between the Bureau of Land Management resource management plan and their officially approved and adopted resources related plans, the resource management plan
Section 1610.3-2. Consistency requirements.

(a) Guidance and resource management plans and amendments to management framework plans shall be consistent with officially approved or adopted resource related plans, and the policies and programs contained therein, of other Federal agencies, State and local governments and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public land, including Federal and State pollution control laws as implemented by applicable Federal and State air, water, noise, and other pollution standards or implementation plans.

(b) In the absence of officially approved or adopted resource-related plans of other Federal agencies, State and local governments and Indian tribes, guidance, and resource management plans shall, to the maximum extent practical, be consistent with officially approved and adopted resource related policies and programs of other Federal agencies, State and local governments, and Indian tribes. Such consistency will be accomplished so long as the guidance and resource management plans are consistent with the policies, programs and provisions of Federal laws and regulations applicable to public lands, including, but not limited to, Federal and State air, water, noise, and other pollution standards or implementation plans.

(c) State Directors and District and Area Managers shall, to the extent practicable, keep apprised of State and local government, and Indian tribal policies, plans, and programs, but they shall not be accountable for ensuring consistency if they have not been notified, in writing, by State and local governments, or Indian tribes of an apparent inconsistency.

(d) Where State and local government policies, plans, and programs differ, those of the higher authority will normally be followed.

(e) prior to the approval of a proposed resource management plan, or amendment to a management framework plan or resource management plan, the State Director shall submit to the Governor of the State(s) involved, the proposed plan or amendment and shall identify any known inconsistencies with State or local plans, policies or programs. The Governor(s) shall have 60 days in which to identify inconsistencies and provide recommendations in writing to the State Director. If the Governor(s) does not respond within the 60-day period, the plan or amendment shall be presumed to be consistent. If the written recommendation(s) of the Governor(s) recommend changes in the proposed plan or amendment which were not raised during the public participation process on the plan or amendment, the State Director shall provide the public with an opportunity to
comment on the recommendation(s). If the State Director does not accept the recommendations of the Governor(s), the State Director shall notify the Governor(s) and the Governor(s) shall have 30 days in which to submit a written appeal to the Director of the Bureau of Land Management. The Director shall accept the recommendations of the Governor(s) if he/she determines that they provide for a reasonable balance between the national interest and the State’s interest. The Director shall communicate to the Governor(s) in writing and publish in the FEDERAL REGISTER the reasons for his/her determination to accept or reject such Governor’s recommendations.\[48\] [Emphasis added]

Significantly, county governments should keep in contact with the Governor to assure the county needs are considered. However, if the BLM has been informed regarding county needs, involvement, and plans, the agency should coordinate directly with the county government. The regulations cited above provide for early involvement of local government in BLM planning activities. This requirement for early involvement is reinforced in the next section of the regulations:

At the outset of the planning process, the public, other Federal agencies, State and local governments and Indian tribes shall be given an opportunity to suggest concerns, needs, and resource use, development, and protection opportunities for consideration in the preparation of the resource management plan.

When the BLM begins the process to amend or develop a resource management plan, the agency is required to consider the ability of the resource area to respond to local needs when formulating reasonable alternatives. The regulations state:

Factors to be considered may include, but are not limited to:

(e) Specific requirements and constraints to achieve consistency with policies, plans, and programs of other Federal agencies, State and local government agencies and Indian tribes;

(g) Degree of local dependence on resources from public lands.\[50\] [Emphasis added]

Clearly, the BLM must consider the impact of its actions on the economies and communities of the counties involved. Further, after alternatives have been developed, the BLM “…shall estimate and display the physical, biological, economic, and social effects of implementing each alternative considered in detail.”\[51\] [Emphasis added] The completed draft resource management plan and associated environmental impact statement “…shall be provided for comment to the Governor of the State involved, and to officials of other Federal agencies, State and local governments and Indian tribes that the

\[48\] 43 CFR 1610.3-1(a),(b),(c),(d),(e); 1610.3-2(a),(b),(c),(d),(e).
\[49\] 43 CFR 1610.4-1.
\[50\] 43 CFR 1610.4-4(e),(g).
\[51\] 43 CFR 1610.4-6.
State director has reason to believe would be concerned.”\textsuperscript{52} Upon implementation, the plan shall be monitored to determine whether it needs to be amended.\textsuperscript{53}

B.4 U.S. Fish & Wildlife Service Planning/NEPA Process

The Fish and Wildlife Service (FWS) was established by the Fish and Wildlife Act of 1956.\textsuperscript{54} The FWS has numerous responsibilities, though two of its major programs are of specific concern to county governments. Those programs are the National Wildlife Refuge System established by the fish and Wildlife Coordination Act\textsuperscript{55} and the duty of the FWS to administer the Endangered Species Act. The FWS, however, has no organic act requiring coordination of planning efforts or protection of custom, culture, and economic, and community stability of counties. Nevertheless, NEPA does apply and counties should remain alert to FWS actions—actions that are subject to the NEPA process. Further, as described below (C.2 Endangered Species Act), local government does have some recourse regarding threatened or endangered species.

B.5 National Park Service & County Government Coordination

The National Park Service (NPS) was created as an agency of the Department of the Interior by what is popularly known as the “National Park Service Organic Act.” The NPS was established to promote and regulate the use of national parks, monuments, and reservations to conserve the scenery, and the natural and historic objects and wildlife therein and to provide for their use while leaving them unimpaired for future generations.\textsuperscript{56} County governments have little recourse regarding administration of relevant areas by the NPS. However, the statute does authorize the NPS to aid the states and political subdivisions in planning such areas for the “…purpose of developing coordinated and adequate public park, parkway, and recreational-area facilities…”\textsuperscript{57}

Congress establishes, abolishes, or revises the boundaries of lands of different federal jurisdiction after receiving recommendations from the affected federal agencies. If, for example, a national park boundary is under consideration for expansion, it will first be reviewed by the federal agencies administering the surrounding land, perhaps the FS or the BLM. The NPS also must include in the review process the opportunity for the public to comment. County government should press for an environmental impact statement to be prepared under the NEPA process if it believes the proposed action would significantly affect the quality of the human environment. Coordination between the federal government and the county government would then be assured.

\textsuperscript{52} 43 CFR 1610.4-7.
\textsuperscript{53} 43 CFR 1610.4-9.
\textsuperscript{54} 16 USC 742b.
\textsuperscript{55} 16 USC 668dd(a)(1).
\textsuperscript{56} 16 USC 1.
\textsuperscript{57} 16 USC 171.
C. COUNTY GOVERNMENT & MISCELLANEOUS FEDERAL LAWS, DIRECTIVES, & COURT DECISIONS

Various federal laws exist that require the involvement of county governments to ensure protection of their custom, culture, and economic and community stability. The laws sometimes contain language regarding consultation, cooperation, and coordination between the federal and county governments. From the county perspective, the language in some laws is stronger or more favorable than language in other laws. Again, counties should begin to avail themselves of the opportunities available to protect themselves under the NEPA process in regard to federal planning activities and the implementation of programs under any of the pertinent federal statutes and regulations. Several federal statutes of particular concern to county governments, because of their planning implications, include: Clean Water Act; Endangered Species Act; National Trails System Act; Public Rangelands Improvement Act; Wild Free-Roaming Horses and Burros Act; Wild and Scenic Rivers Act; Wilderness Act; and various acts pertinent to federal wildlife jurisdiction. These acts and the Presidential Executive Order on just compensation for federal “takings” of private property, and a recent Supreme Court decision regarding the prosecution in state or local courts of constitutional or statutory violations by federal agencies, are discussed below.

C.1 Clean Water Act

The federal wetlands protection effort is a composite of provisions in numerous laws. The principal federal program that provides regulatory protection for wetlands is found in Section 404 of the Clean Water Act. Its intent is to protect water and adjacent wetland areas from adverse environmental impacts due to structural work or modification of waterways, including flood control measures. Section 404 requires landowners or developers to obtain permits in order to carry out dredging or filling activities in navigable waters.

The permit program is administered by the U.S. Army Corps of Engineers (Corps), using environmental guidance from the U.S. Environmental Protection Agency (EPA). The Corps has had exclusive regulatory jurisdiction over dredging and filling, first under the River and Harbor Act of 1899 and then under Section 404 of the Clean Water Act. In the 1970s, legal challenges were raised to the Corps’ initial regulations to implement Section 404. Judicial decisions in key cases led the Corps to revise its program under Section 404 to incorporate jurisdictional definitions that are broad in terms of both regulated waters and adjacent wetlands. As a result of this judicial and regulatory evolution of the Section 404 program, activities covered by it are now considered to include not only navigable rivers and lakes, but non-navigable streams that flow into navigable waters, wetlands along navigable waters or at the headwaters of interstate waters, and other isolated wetlands. Further complicating the situation is how “wetlands” are defined.

ss 16 USC 171.
Regulatory procedures allow for interagency review and comments in the implementation of Section 404, a process which can generate delays, especially for environmentally controversial projects. EPA is the only Federal agency having veto power over a proposed Corps permit, but the U.S. fish and Wildlife Service and the U.S. Soil Conservation Service have responsibilities regarding wetlands. The agencies review and make recommendations on Section 404 permits. Historically, however, the agencies have often been at odds over interpretations and implementation of the Section 404 program even though they jointly issued a manual in 1989 (Federal Manual for Identifying and Delineating Wetlands) and agreed to use the same definition for determining what is and what is not a wetland.

Although the agencies were attempting to meet President Bush’s pledge of “no net loss” of wetlands, the quagmire of conflicting regulations, policies, and interpretations has wreaked havoc with many landowners and developers. Permits often cannot be obtained to pursue projects even though in many instances the area involved is only marginally a wetland. Delays are often caused as the agencies bicker over what constitutes a wetland or whether other environmental concerns should be considered. The delays sometimes lead to expensive contract disputes and similar problems for involved landowners and developers.

Considerable dissatisfaction had led to a broad public backlash. As a result, several comprehensive Section 404 reform bills have been introduced into Congress. However, in an effort to address the situation, and thus forestall action by Congress, the Administration announced (August 1991) a proposed three-part plan to address the problems and still meet the goal of no net loss of wetlands. The plan would:

1. Strengthen wetlands acquisition programs and other efforts to protect wetlands;
2. Revise the interagency manual defining wetlands to ensure that it is workable; and
3. Improve and streamline the current regulatory system.

The outcome of Congressional action and the Administration’s plan, including the new definition of wetlands, will be important to county governments. The issuance of permits can be a major source of delay and an economic burden, and can affect how landowners and industrial interests use their property. County government is advised to remain alert to the impact of “wetlands” designations on these permits and land uses and how they impact custom culture, and economic and community stability. If necessary, county government can seek involvement under the NEPA process.
C.2 Endangered Species Act

The 1988 amendments to the Endangered Species Act (ESA) require the U.S. Fish and Wildlife Service (FWS) to notify state and county governments regarding all proposed listings of threatened or endangered species, all proposed additions or changes in critical habitat designations, and all proposed protective regulations. Once the county government is notified of a proposed species listing, proposed critical habitat designation, or proposed protective regulation, the local government can take action to mitigate the effects of the proposed action or regulation on local economies.

C.2.1 Purposes & Listing Requirements Under the Endangered Species Act

The purposes of the ESA are to 1) provide a means to conserve the ecosystems upon which endangered and threatened species depend, and 2) provide a program for the conservation of such threatened and endangered species. A “threatened” species is a species likely to become endangered throughout all or a significant portion of its range within the foreseeable future. An “endangered” species is a species that is endangered throughout all or a significant portion of its range.

C.2.2 Threatened or Endangered Species Listing

The Listing of a threatened or endangered species by the Secretary is to be based on the best scientific and commercial data available, after taking into account those efforts of a State, or any political subdivision of a state, to protect the species. The listing determination is based solely on the basis of best scientific and commercial data available; there is no consideration of the economic impacts of the listing of that species.

Pursuant to the Endangered Species Act, protection of most species is administered by the Secretary of the Interior through the FWS. However, marine species, including many marine mammals, are the responsibility of the Secretary of Commerce, acting through the National marine Fisheries Service. The law assigns the major role to the Secretary of the Interior and specifies the relationship of the two secretaries and their respective authorities. Once a species is listed, States and private land owners must comply with the FWS determinations regarding the species’ protection. Federal land managing agencies, the BLM and Forest Service, are required to consult with the FWS regarding species protection, but the FWS does not have a veto power over the actions of another federal agency, even in the name of the ESA. National Wildlife Federation v. Coleman, 529 F.2d 359 (1976), cert. den., 429 US 979 (1977).

16 USC 1533(b)(5)(A).
16 USC 1531 et seq.
16 USC 1531(b).
16 USC 1532(20)
16 USC 1532(6).
16 USC 1533(b).
C.2.3 Designation of Critical Habitat

Critical habitat is the specific area (within the geographical range of the species) occupied by the species at the time it is listed, containing those physical or biological features essential to the conservation of the species. These features may require special consideration or protection. Critical habitat may also include areas outside the geographical area occupied by the species at the time it is listed, if the Secretary determines that those areas are essential for the conservation of the species. The Secretary shall designate critical habitat concurrently with the process of making a determination that a species is threatened or endangered. Subject to a few exceptions, failure to designate critical habitat in the required timely manner is a violation of the statute.

Critical habitat designations are to be based on the best scientific data available after taking into consideration economic impacts and other relevant concerns. Failure to consider economic impacts is a violation of the statute. The Secretary may exclude an area from critical habitat if he or she determines that the benefits of such exclusion outweigh the benefits of designating the areas as critical habitat. Areas may be excluded as determined by the best scientific and commercial data available unless the failure to designate such an area as critical habitat will result in the extinction of the species.

C.2.4 Protective Regulations & Recovery Plans

The Secretary is required to issue protective regulations and to develop and implement recovery plans to provide for the conservation and survival of threatened and endangered species unless he or she finds that such a plan will not promote the conservation of the species.

C.2.5 Sensitive Species Program

Federal agencies have been notified that they are to give “additional consideration” to those plant and animal species that the FWS may be considering, but does not have adequate data to list as threatened or endangered. Often this is called the “sensitive species” program.

C.2.6 County Government Participation Under the Endangered Species Act

66 16 USC 1532(5)(A)(i).
67 16 USC 1532(5)(A)(ii).
69 16 USC 1533(b)(2).
70 16 USC 1533(b)(2).
71 16 USC 1533(d), 1533(f).
72 50 CFR part 17

The sensitive species program requires federal agencies to give special protection to species that are not legally or formally listed as threatened or endangered pursuant to the Endangered Species Act. These species and their habitats may be “protected” even though (1) they may not meet the strict scientific review requirements under the ESA, and (2) the public has had no opportunity to review or comment on the special protection program as required by ESA, contrary to law.
The ESA was amended in October 1988, to allow State and county governments the opportunity to participate in, and to influence, all proposed species listings, proposed designations of critical habitat, and proposed protective regulations.\footnote{16 USC 1533(b)(5)}

**C.2.7 County Government Participation in the Species Listing & Critical Habitat Designation Process**

The 1988 amendments to the ESA require that county governments are to be notified regarding the listing, delisting, or reclassification of a threatened or endangered species or designation or revision of its critical habitat. This notification must be “actual notice.”\footnote{16 USC 1533(b)(A)(ii).} Actual notice means that the county must receive a letter regarding any of the above endangered species actions. General newspaper or Federal Register notice is not enough. Once notified, the county government has the opportunity to comment on the proposed species listing or critical habitat designation. If the county government disagrees with the FWS decisions, the FWS must specifically respond to the comments of local government in writing.\footnote{16 USC 1533(i).} The courts have stated that the failure of the federal agency to adequately respond to comments made by the county government (or the public) will void the final decision.\footnote{natural resources Defense Council v. Clark, No. 86-0548 (August 13, 1987, E.D. Ca) (setting aside Executive Order for failing to adequately respond to public comments.)}

**C.2.8 County Government Participation in the Development of Recovery Plans**

The ESA requires that priority by given to developing recovery plans to protect threatened or endangered species from construction, development, or other forms of economic activity.\footnote{16 USC 1533(f)(1)(A).} Direct county governmental input and involvement in drafting recovery plans under the ESA is minimal. The ESA requires only that public notice and an opportunity for public review and comment on recovery plans be provided. The information provided by the public must be considered prior to approval of the plan.\footnote{16 USC 1533(f)(4).} Further, other agencies must consider all information presented during the public comment period prior to implementation of a new or revised recovery plan.\footnote{50 CFR 1533(f)(5).}

Other alternatives under the ESA exist that provide the opportunity for a county to protect its interests. The FWS may obtain the services of appropriate public and private agencies, institutions, and persons in developing and implementing recovery plans.\footnote{50 CFR 1533(f)(2).} County governments that employ a qualified person May thus arrange to have pertinent input into recovery plans. Further, a county may be able to preclude the FWS from developing and implementing a recovery plan within the county by entering into a co-
operative agreement with the FWS whereby the county would have responsibility for recovery plans. The FWS must enter into such cooperative agreements with states that establish and maintain an adequate and active program to conserve threatened or endangered species.\footnote{16 USC 1535(c)(1).} proposals submitted by state agencies must meet requirements specified in the ESA and be approved annually. The term “state agency” is defined as “…an State agency, department, board, commission, or other government entity which is responsible for the management and conservation of fish, plant, or wildlife resources within a State.”\footnote{16 USC 1532(18).} [Emphasis added] If it can be established that such authority resides at the county level, “state agency” would include the board of county commissioners, particularly since the County is a political subdivision of the State.

Although expensive and time consuming, counties do have the option of exercising authority in this area. If a threatened or endangered species occurs in only one county, local assumption of responsibility for a recovery plan might merit the effort, especially considering the fact that the ESA makes provisions for funding 75% of the cost of implementation of the recovery plan. Additionally, if the involved species occurs in counties across state lines, the ESA makes provisions for funding 90% of the cost of implementing the recovery plan. If such a species occurs in several adjacent counties, perhaps a coalition of counties could cooperatively pursue a common recovery plan, thus thwarting a federal recovery plan with its serious implications and problems for county sovereignty.

Perhaps a more realistic approach to obtaining meaningful county input is to pursue the heretofore little used (by counties) NEPA process. Designation of critical habitat or preparation of recovery plans should be considered major federal actions significantly affecting the quality of the human environment. County governments can press for an environmental impact statement under the NEPA process to evaluate federal actions regarding critical habitat and recovery plans, thus forcing federal coordination with the county.

\textbf{C.3 National Trails System Act}

The purpose of the National Trails System Act is to provide for outdoor recreation needs and to promote the preservation and use of outdoor areas and historic resources of the Nation.\footnote{16 USC 1241.} The act does provide specific language important to county governments. If trails meet specified criteria, the Secretary of Agriculture or the Secretary of the Interior “…may establish and designate national recreation trails, with the consent of the Federal agency, State, or political subdivision having jurisdiction over the lands involved…”\footnote{16 USC 1243(a)} [Emphasis added] Catron County can exercise jurisdiction over affected lands as allowed by New Mexico statutes, if the appropriate county ordinances exist.\footnote{4-37-2 NMSA 1978.} National recreation trails are accorded a different status in the law compared with

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\footnote{16 USC 1535(c)(1).} \footnote{16 USC 1532(18).} \footnote{16 USC 1241.} \footnote{16 USC 1243(a)} \footnote{4-37-2 NMSA 1978.}
national scenic or national historic trails. The latter two can only be authorized and designated by Act of Congress.\textsuperscript{86} Studies by the Secretary of Agriculture or the Secretary of the Interior to determine if other trails should be designated as national scenic or national historic trails shall be made in “cooperation with interested...State, and local governmental agencies...”\textsuperscript{87} Further, the Secretary involved with a particular national scenic or national historic trail “shall, in administering and managing the trail, consult with the heads of all other affected State...agencies.”\textsuperscript{88}

\subsection*{C.4 Public Rangelands Improvements Act}

Section 8 of the public Rangelands Improvement Act of 1978\textsuperscript{89} specifically requires the Bureau of Land Management (BLM) and the U.S. forest Service (FS) to engage in careful and considered consultation, cooperation, and coordination with grazing permittees, lessees, and landowners involved, the district grazing advisory boards, and any state or states having lands within the area (i.e., not merely ‘interested parties’), in the development and revision of Allotment Management Plans (AMPs). The words “careful and considered,” and the explicit exclusion of ‘interested parties’ in the legislation indicate that Congress intended Section 8 to be a very specific and limited process: A process intended to ensure meaningful and productive interchange between the identified parties and the pertinent agency in matters relating to AMPs. Section 8 establishes the obligation of the agencies to engage in good faith cooperation, consultation, and coordination with the specified parties apart from other public participation requirements associated with development or amendment of AMPS. Section 8 also establishes the grazing permittees and lessees as unique parties in regard to the development and revision of AMPs. The term “coordinate,” for example, means the state of being “equal, of the same rank, order, degree, or importance; not subordinate.”\textsuperscript{90} Applied to the development or revision of AMPs, coordination means that the working relationship between agency staff and the specified parties is intended by Congress to be more than simple consultation and cooperation. The point to be emphasized is that coordination with county government under this comprehensive plan is not sufficient. Coordination must be effected with the parties specified in Section 8.

\subsection*{C.5 Wild Free-Roaming horses & Burros Act}

Congress passed the Wild Free-Roaming Horses and Burros Act with the stated purpose that these animals “shall be protected from capture, branding, harassment, or death; and the accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the public lands.”\textsuperscript{91} The act applies to unbranded...
and unclaimed wild free-roaming horses and burros on public lands of the United States. The Act applies specifically to public lands administered by the Secretary of Agriculture through the Forest Service and the Secretary of the Interior through the BLM. Horses or burros protected under this act which stray from public lands onto privately owned lands remain protected. Landowners, however, can request, and federal officials shall, have the animals removed.

The law does not, in itself, require federal land use plans that deal with wild free-roaming horses and burros to be coordinated with county land use plans. It does authorize the appropriate Secretary to enter into cooperative agreements with the State and governmental agencies. The county can use NEPA to obtain County Environmental Impact Statements and local public hearings.

C.6 Wild & Scenic Rivers Act

Certain selected rivers, and their immediate environments, are protected by the Wild and Scenic Rivers Act. The national wild and scenic rivers system includes only rivers authorized for inclusion therein by Act of Congress or by Stat(s) legislation that meets the approval of the Secretary of the Interior. “A wild, scenic or recreational river area eligible to be included in the system is a free-flowing stream and the related adjacent land area” that possess specified values. The values are “outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values…” The boundaries that comprise “the related adjacent land area” varies depending upon when the river was included as a component in the system. The first rivers included in the system contained boundaries with “an average or not more than 320 acres of land per mile measured from the ordinary high water mark on both sides of the river.” The boundaries of rivers included at later dates contained “that area measured within one-quarter mile from the ordinary high water mark on each side of the river.” The statutes do not specify boundary requirements for future additions to the system.

Pertinent federal agencies must prepare a comprehensive management plan for rivers designated on or after January 1, 1988. The plan is to be prepared after consultation with State and local governments within three fiscal years after designation. All boundaries, classifications, and plans for rivers designated prior to January 1, 1986, must

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92 16 USC 1332(b).  
93 16 USC 1332(a).  
94 16 USC 1334.  
95 16 USC 1336.  
96 16 USC 1271.  
97 16 USC 1273(a).  
98 16 USC 1273(b).  
99 16 USC 1271.  
100 16 USC 1274(b).  
101 16 USC 1274(d).  
102 16 USC 1274(d)(l).
be reviewed for conformity with the statutes within 10 years through regular agency planning processes.103

Additional opportunity for the involvement of local government is provided in the statutes. The pertinent federal agency administering any component of the national wild and scenic rivers system “may enter into written cooperative agreements with the Governor of a State, the head of any State agency, or the appropriate official of a political subdivision of a State for State or local governmental participation in the administration of the component. The States and their political subdivisions shall be encouraged to cooperate in the planning and administration of components of the system which include or adjoin State- or county-owned lands.”104

The spirit of the intended cooperation is further evidenced in the statutes with the following mandate by Congress:

(1) The Secretary of the Interior, the Secretary of Agriculture, or the head of any other Federal agency, shall assist, advise, and cooperate with States or their political subdivisions, landowners, private organizations, or individuals to plan, protect, and manage river resources. Such assistance, advice, and cooperation may be through written agreements or otherwise. This authority applies within or outside a federally administered area and applies to rivers which are components of the National Wild and Scenic Rivers System and to other rivers.105

The Secretary of Agriculture and the Secretary of the Interior are directed to study and submit a report to the President “on the suitability or non-suitability for addition to the national wild and scenic rivers system of rivers which are designated...[in the statutes] or hereafter by the Congress as potential additions to such system.”106

Before submitting any such report to the President and the Congress, copies of the proposed report shall be submitted to the Governor of the State or States in which they are located or to an officer designated by the Governor to receive the same.107

Recommendations or comments on the proposal furnished within 90 days, together with the Secretary’s or Secretaries’ comments, must be included with the transmittal to the president and the Congress.108

103 16 USC 1274(d)(2).
104 16 USC 1281(e).
105 16 USC 1282(b)(1).
106 16 USC 1275(a).
107 16 USC 1275(b).
108 16 USC 1275(b).
C.7 Wilderness Act

The National Wilderness preservation System established by Congress is comprised of the federally owned lands designated as “wilderness areas.” The purpose of these lands is to secure the benefits of an enduring resource of wilderness.\textsuperscript{109} “Wilderness” is defined in the act as follows:

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 underdeveloped 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.\textsuperscript{110}

The Wilderness Act does not address the issue of federal land use plans being coordinated with county land use plans. Further, when any area is under consideration for preservation as wilderness, or any modification or adjustment of boundaries of any wilderness area is under review, State and county governments may only submit their views on the proposed action as follows:

(d) (1) The Secretary of Agriculture and the Secretary of the Interior shall, prior to submitting any recommendations to the President with respect to the suitability of any area for preservation as wilderness—

(C) at least thirty days before the date of a hearing advise the Governor of each State and the governing board of each county, or in Alaska the borough, in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing.

(2) Any views submitted to the appropriate Secretary under the provisions of (1) of this subsection with respect to any area

\textsuperscript{109} 16 USC 1131(a).

\textsuperscript{110} 16 USC 1131(c).
shall be included with any recommendations to the President and to Congress with respect to such area.\textsuperscript{111}

(e) Any modification or adjustment of boundaries of any wilderness area shall be recommended by the appropriate Secretary after public notice of such proposed and public hearing or hearings as provided in subsection (d) of this section.\textsuperscript{112}

Several special provisions in the Wilderness Act regarding wilderness areas may be pertinent to county land use planning:

**Minerals** – Subject to valid rights then existing, effective January 1, 1984, the minerals in lands designated by this chapter as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.\textsuperscript{113}

**Water** – Within wilderness areas in the national forests designated by this chapter, (1) the President may, within a specific area and in accordance with such regulations as he may deem desirable, authorize prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial.\textsuperscript{114}

Nothing in this chapter shall constitute an express or implied claim or denial on the part of the Federal Government, as to exemption from State water laws.\textsuperscript{115}

**Livestock grazing** — the grazing of livestock, where established prior to September 3, 1964, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.\textsuperscript{116}

**Commercial services** – Commercial services may be performed within the wilderness area designated by this chapter to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the area.\textsuperscript{117}

\textsuperscript{111} 16 USC 1132(d)(1),(C)(2).
\textsuperscript{112} 16 USC 1132(e).
\textsuperscript{113} 16 USC 1133(d)(3).
\textsuperscript{114} 16 USC 1133(d)(4)(1).
\textsuperscript{115} 16 USC 1133(d)(6).
\textsuperscript{116} 16 USC 1133(d)(4)(2).
\textsuperscript{117} 16 USC 1133(d)(5).
State jurisdiction of fish and wildlife — Nothing in this chapter shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests. 118

The Wilderness Act addresses access to privately owned lands and mining claims, and federal acquisition of privately owned lands within the perimeter of wilderness areas:

(a) …In any case where State-owned or privately owned land is completely surrounded by national forest lands within areas designated by this chapter as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such State or private owner and their successors in interest, or the State-owned land or privately owned land shall be exchanged for federally owned land or privately owned land shall be exchanged for federally owned land in the same State of approximately equal value under authorities available to the Secretary of Agriculture: Provided, however, that the United States shall not transfer to a State or private owner any mineral interests unless the State or private owner relinquishes or causes to be relinquished to the United States the mineral interest in the surrounded land. 119

(b) …In any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area as wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated. 120

(c) …Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this chapter as wilderness is (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress. 121

County involvement in all federal actions taken under the authority of the Wilderness Act can be pursued and attained through the NEPA process, i.e., by requiring a County Environmental Impact Statement by completed and local hearings.

118 16 USC 1133(d)(7).
119 16 USC 1134(a).
120 16 USC 1134(b).
121 16 USC 1134(c).
C.8 Federal Wildlife Jurisdiction

It is difficult to state precisely what constitutes federal wildlife law because of the important doctrine of state ownership of resident wildlife. Limited federal control over wildlife has been justified under several provisions of the U.S. Constitution. Federal wildlife jurisdiction has been constitutionally interpreted to stem from the authority delegated to the Congress to: 1) Create and regulate a federal government, i.e., Congress can create national monuments, national parks, and national refuges, and protect the resources within them; 2) make treaties, i.e., control, supervision, and management of migratory species such as ducks and geese can have international implications and are subject to treaty power; 3) regulated foreign and interstate commerce, i.e., can control shipment of carcasses in interstate commerce; and 4) lay and collect taxes, duties, imposts, and excises, i.e., can enforce federal wildlife laws. The Congress also has the right to make all laws necessary and proper to carry out existing powers.

The first federal wildlife law was passed in 1900 and the body of federal wildlife law is now quite voluminous and complex. One consequence of this situation is that the legislative programs established by federal laws require vast administrative bureaucracies to implement them. Although each state still has its own set of wildlife laws, there are federal laws common to all states. County governments are advised to be aware of pertinent federal wildlife laws as necessary and to use NEPA County EIS’s where proper.

C.9 Presidential Executive Order on Taking of Private Property Rights

President Reagan issued an Executive Order (E>O>) that requires all federal departments and agencies to avoid actions which infringe on private property rights. Issued March 15, 1988, Executive Order No. 12630 is entitled Governmental Actions and Interference with Constitutionally Protected Property Rights.

Actions undertaken by governmental officials that result in a physical invasion or occupancy of private property, and regulations imposed on private property that substantially affect its value or use, may constitute a taking of property. Further, governmental action may amount to a taking even through the action results in less than a complete deprivation of all use or value, or of all separate and distinct interests in the same private property and even if the action constituting a taking is temporary in nature.

Further, the E.O. includes “undue delays in decision-making during which private property use if interfered with carry a risk of being held to be takings.” Takings require financial compensation and due process. In addition, the E.O. establishes an ongoing process within the government for assessing the impact on property rights by all federal actions, policies, regulations, proposed regulations, legislation, proposed legislation, and other policy statements that if implemented or enacted could effect a taking. The E.O. does not, and legally cannot, prohibit takings, but it directs the government to prevent
unnecessary takings and it creates a way to eliminate inadvertent takings.

Recent Supreme Court decisions have imposed strict limits on how far government regulations can restrict the owner’s use of his or her own private property. Cases like Nollan v. California Coastal Commission, First English Evangelical Lutheran Church of Glendale v. County of Las Angeles and Lucas v. So. Carolina Coastal Council have tightened the standard determining when a restriction on property use becomes a “taking” for which the government has to pay. The two cases determine that even a temporary and/or partial deprivation of the economic use of private property caused by a governmental action could amount to a taking. If a taking occurs, the government must prove that there is a public purpose that warrants the taking and must provide just financial compensation and due process. Undue delays in the government’s decision making process, concerning a permit for example, could lead to a takings action according to these landmark cases.

Prompted by these decisions and by his philosophy on limited government, individuals’ rights, and reducing federal expenditures, President Reagan issued the E.O. The E.O. rearticulates the Supreme Court’s rigorous interpretation of the Fifth Amendment. It reminds government officials that even actions taken to protect public health and safety—actions which are usually given wide latitude by the courts—are subject to this E.O.

The E.O. covers all governmental actions that could have a restrictive impact on property use or value. And while the E.O. is not itself a Statute, it is binding within the limits of existing law. Its authority is permanent unless it is amended or repealed by the issuing President.

Specifically, the E.O. establishes a process that requires:

1. Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings be prepared by the Attorney General to be used by the executive departments and agencies as the yardstick for making what is commonly referred to as a “Taking Implications Assessment” (TIA).
2. Designation of an official in each executive department and agency responsible for compliance with the E.O.
3. Executive departments and agencies to the extent permitted by law, assess the takings implications of proposed regulatory actions and address the merits of those actions in light of the identified takings implications in all required submissions made to the Office of Management and Budget.
4. Each executive department and agency must report annually an itemized compilation of all awards of just compensation for takings.

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124 No. 91-453, June 29, 1992
In general, compliance by the federal government with the E.O. and the TIA process has been inadequate. But the E.O. is an important tool which can be exercised by local government.

**C310  U.S. Supreme Court Decision: Jurisdiction of State & Local Courts**

On May 20, 1991, the United States Supreme Court declared that the federal agencies are required to submit to the jurisdiction of state and local courts. In a unanimous decision, the court declared that federal agencies used under state law in a state court cannot seek to have the case removed to federal court. The question before the Supreme Court was whether the national Institute of Health, an agency of the federal government, could force a case under state law to be heard in federal district court. The Supreme Court ruled that cases involving federal agencies could not be automatically removed to federal court. The Court concluded that although persons or officers of the federal government specifically named in a state action in state court can cause a case to be heard in federal court, federal agencies named as sole defendants cannot cause a case to be removed to federal court. Individuals or county governments seeking to protect their rights under state or local law, in state or local courts, against the federal government should name only the federal agency creating the statutory violation rather than naming individual employees.

**D. NEW MEXICO STATE STATUTES**

Several short, self-explanatory statutes of the state of New Mexico have relevance to county governments that are attempting to exercise their authorities.

**D.1 County Home Rule**

In 1987, the “Home rule County Validation Act” was enacted as follows:

4-37-10. Short title.
This act [4-37-10 to 4-37-13 NMSA 1978] may be cited as the “Home Rule County Validation Act.” (Approved March 4, 1987)

4-37-11. Validation.
All amendments adopted under color of law to a county charter adopted under the provisions of Article 10, Section 5 of the constitution of New Mexico allowing or purporting to allow the county to exercise all legislative powers and perform all functions not expressly denied by general law or charter as provided in Article 10, Section 6 of the constitution of New Mexico and all acts and proceedings heretofore taken under such charter amendments are hereby validated, ratified, approved, and confirmed, as of the date of adoption or attempted adoption of such

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126 4-37-10 to 4-37-13 NMSA 1978.
amendments, notwithstanding any lack of power, authority or otherwise, and notwithstanding any defects and irregularities in such acts and proceedings.

4-37-12. Effect and Limitations.
The Home Rule County Validation Act [4-37-10 to 4-37-13 NMSA 1978] shall operate to supply such legislative authority as may be necessary to validate any amendments to a county charter adopted under Article 10, Section 5 of the constitution of New Mexico allowing the county to exercise the powers provided for in Article 10, Section 6 of the constitution of New Mexico and any acts and proceedings heretofore taken under such charter amendments which the legislature could have supplied or provided for or can now supply or provide for in the law under which such amendments were adopted and such acts and proceedings were taken. The House Rule County Validation Act, however, shall be limited to the validation of charter amendments, acts and proceedings to the extent to which such validation can be effectuated under the state and federal constitutions. The Home Rule County Validation Act shall not operate to validate, ratify, approve, confirm or legalize any charter amendment, act, proceeding or other matter which has heretofore been determined in any legal proceeding to be illegal, void, or ineffective. (Approved March 4, 1987).

The Home Rule County Validation Act [4-37-10 to 4-37-13 NMSA 1978], being necessary to secure the public health, safety, convenience, and welfare, shall be liberally construed to carry out its purposes.

D. County Ordinance Jurisdiction

New Mexico statutes establish that county ordinances are effective on privately owned land or land owned by the United States as follows:

4-37-2. Areas in which county ordinances are effective.
County ordinances are effective within the boundaries of the county, including privately owned land or land owned by the United States.127

4-37-3. Enforcing county ordinances; jurisdiction.
County ordinances may be enforced by prosecuting for violations of those ordinances in any court of competent jurisdiction of the county. Penalties for violations of any county ordinances shall not exceed a fine of three hundred dollars ($300) or imprisonment for ninety days, or both the fine and imprisonment.128

128 4-37-3 NMSA 1978.
D.3 Rangelands Coordination

Effective in 1991, New Mexico enacted a law similar to Section 8 of the Public Rangelands Improvement Act of 1978.129 The New Mexico statute requires consultation, cooperation, and coordination by involved parties (including the federal agencies) when management plans, involving lands of intermingled ownership, are developed for livestock grazing as follows:

76-7C-1. Graziang permits; management plans.
A. In all areas of New Mexico where the production of livestock is managed upon intermingled private, state, and federal land, landowners, lessees, and permittees may provide for the development and implementation of a management plan. If a landowner, permittee or lessee elects to develop a management plan for any given area, he shall do so in consultation, cooperation, and coordination with other lessees, permittees, and landowners involved. In addition, the permittee, lessee, or landowner shall consult with the range improvement task force located at New Mexico State University and the New Mexico Department of Agriculture.

B. Management plans shall be tailored to the specific range condition of the area to be covered by these plans and shall be reviewed on a periodic basis to determine whether they have been effective in improving the range condition of the lands involved. The management plans may be revised or terminated or new plans developed from time to time after such review and careful and considered consultation, cooperation, and coordination with all permittees, lessees and landowners involved and, if appropriate, with the New Mexico Department of Agriculture and the range improvement task force staff of New Mexico State University.130

D.4 Fences

Concern exists as to whether or not the federal agencies must construct a fence to exclude undesired livestock from federal lands per New Mexico statutes. An example of this concern is where private lands along the San Francisco River border lands administered by the Forest Service and no fence separates the properties. The logical extension of the question is whether or not the Forest Service can change a trespass fee when livestock move from the private lands onto the federal lands.

New Mexico statutes 77-61-1 through 77-16-18 NMSA 1978, address fences. Any person with land or crops which would be injured by trespassing animals must make a sufficient and legal fence about his or her properties so as to avoid damage.131

129 43 USC 1901 et seq.
130 76-7C-1 NMSA 1978.
131 77-16-1 NMSA 1978.
includes domestic animals such as cattle, horses, sheep, hogs, goats, and buffaloes.

The federal government will recognize and abide by state laws and county ordinances if they do not conflict with federal laws or require action that is illegal. There are four federal statutory provisions governing fences. 132

Statutory provisions are found in the Unlawful Inclosure of Public Lands Act, the Taylor Grazing Act, the Federal Land Policy and Management Act of 1976 (FLPMA), and the federal criminal code.

Under the unlawful Inclosure of Public Lands Act, a person is prohibited from building any fence on his private lands that has the practical effect of inclosing or preventing access to adjoining or intermingled tracts of federally-owned lands. A violation of this prohibition is a misdemeanor. Under the Act, the United States also may bring suit for a decree requiring the removal or destruction of any unlawful inclosure.

While the Unlawful Inclosure of Public Lands Act limits what type of fences persons may construct on their land adjoining or intermingled among public lands, the Taylor Grazing Act and FLPMA set forth certain requisites for fences on public lands. Under the Taylor Grazing act, a person wanting to construct a fence on public lands devoted to livestock grazing must first obtain a permit from the Secretary of the Interior. The Act leaves to the Secretary’s discretion what conditions may be included in the permit. FLPMA also requires that a person seeking to build a fence on any public lands must first obtain a permit from the forth conditions so that neither unnecessary nor undue degradation to the public lands occurs from the permitted development.

Finally, under the federal criminal code, any person who breaks, opens, or destroys any fence on lands owned by the United States, and that are reserved for a public use, commits a misdemeanor.

These four federal statutes do not pertain to the question at hand. Therefore, state statutes are the guiding reference for direction. 133

77-16-1. [Necessity for fence.]
Every gardener, farmer, planter, or other person having lands or crops that would be injured by trespassing animals, shall make a sufficient fence about his land in cultivation, or other lands that may be so injured, the same to correspond with the requirements of the laws of this state prescribing and defining a legal fence.

133 77-16-2. Definition.
As used in Article 16 of Chapter 77 [NMSA 1978], “livestock’ shall include domestic animals such as cattle, horses, sheep, hogs, goats, and buffaloes.
77-16-3. [Damages on fenced lands; right of action; lien on animals.] When any trespassing shall have been done by any cattle, horses, sheep, goats, hogs, or other livestock upon the cultivated or enclosed ground of any other person, then the same is fenced as provided by Section 77-16-1 NMSA 1978, but not otherwise, such person may recover any damage that he may sustain by reason thereof by suit in any court having jurisdiction and a person so damaged is hereby given a lien on all livestock of the same kind and brand, belonging to the owner of such trespassing animal or animals for security of his damages and costs; but in no case shall he have such lien nor shall he be entitled to recover any damages, under any circumstances, for such trespass, unless he has such lands and crops enclosed by a legal fence as provided by the preceding section [77-16-1 NMSA 1978].

77-16-4. [Barbed wire fence; specifications.] When fences are constructed of barbed wire and posts they shall be built substantially as follows: Posts set firmly in the ground and projecting above the ground not less than four feet, said posts to be not less than two inches in diameter at the smaller end, and to be set not over thirty-three feet apart; four barbed wires to be strung firmly and securely fastened to said posts, the bottom wire to be placed approximately twelve inches from the ground, the second wire to be approximately twelve inches above the bottom wire, the third wire to be approximately twelve inches above the second wire and the fourth wire to be approximately twelve inches above the third wire; and between each two posts there shall be placed approximately equidistant apart three stays to be securely fastened to said wires for the purpose of holding the wires in position. Any four-wire fence greater or equivalent to said fence in strength and resisting power shall be considered a legal fence.

D.5 Endangered Plants

The Energy, Minerals, and Natural Resources Department has responsibility for listing, protecting, and conserving species of endangered plants. The department is mandated to conserve listed endangered plant species by developing a program which includes habitat maintenance. The department has the authority to protect endangered plants by prohibiting the taking, possession, transportation, exportation from New Mexico, processing, sale; or offer for sale, or shipment within the state of such species. The term “taking,” however, is not defined. This precludes defining what constitutes a violation or, for the matter, establishing and enforcing restrictive requirements by the department to protect the plants. The department is authorized to enter into agreements with federal agencies, other states, agencies, or political subdivisions of the state (county governments), or with individuals for administration and management of any program established under this statute.

134 75-6-1 NMSA 1978
D.6 State Trust Lands

The commissioner of public lands has authority over state trust lands. The Commissioner “shall select, locate, classify, and have the direction, control, care, and disposition of all public lands, under the provisions of the acts of congress relating thereto and such regulations as may be provided by law.” The commissioner is not required to coordinate relevant plans, activities, or programs with county governments. A 1988 opinion of the New Mexico Attorney General regarding the exchange of state trust lands, however, is significant to county land use planning activities.

Exchange of state trust lands. —The commissioner of public lands may not exchange state trust lands of equal value whether held in private ownership or by other state agencies, local governing bodies, trust land beneficiary institutions and federal agencies, other than the Department of Interior. 1988 Op. Att’y Gen. No. 88-35.

D.7 Water

The state engineer “has general supervision of waters of the state and of the measurement, appropriation, distribution thereof and such other duties as required.” A Catron County Water Use plan has been prepared under separate cover which, herewith, is incorporated into this Comprehensive Land use and Policy Plan by reference.

D.8 Wildlife

Authority for the management of fish and most resident wildlife species is vested in the State Game Commission. policies of the commission are carried out by the Department of Game and Fish under the administration of a director. neither the commission nor the director are required by statutes to coordinate planning or management activities with other state or federal agencies or county governments.

Regarding endangered species, the Wildlife Conservation Act authorizes the director to establish programs necessary for the management of endangered species. The director may also formalize agreements with federal agencies, political subdivisions of the state (i.e., county governments) or with private persons. such agreements provide for the administration and management by the relevant entity (in this case county government(s))

135 Constitution of New Mexico, Article XIII, Section 2.
136 ibid.
137 72-2-1 NMSA 1978.
138 17-1-2 and 17-1-14 NMSA 1978.
139 17-1-5 NMSA 1978.
140 17-2-42 NMSA 1978
of any program established under the act of utilized for management of state-listed, and most federally listed, endangered species of fish and wildlife.

D.9 Catron County Ordinances

Catron County has passed four ordinances pertinent to the comprehensive plan. The first ordinance provides for the general welfare, public peace, health, and safety of the citizens of Catron County. 141 The ordinance adopts the Public Rangelands Improvement Act (43 USC 1901 et seq.). It requires consultation, cooperation, and coordination by involved parties (including the federal agencies) when allotment management plans are developed or amended for livestock grazing. Violations by the federal agencies are deemed to be a breach of the ordinance. In essence, the ordinance requires the federal agencies to meet the mandate of Section 8 of the Public Rangelands Improvement Act. Violations are subject to prosecution in state and local courts.

The second ordinance endorses the protection, rights, or privileges afforded by the U.S. Constitution and the Civil Rights Act (18 USC 241 et seq.). The purpose of the ordinance is to protect the citizens of the United States from acts which “injure oppress, threaten, or intimidate any citizen in the free exercise or enjoyment of any right or privilege secured to him by the Constitution or laws of the United States.” To ensure that those protections, rights, or privileges are afforded to the citizens of Catron County, the Civil Rights Act was adopted as a county ordinance. 142 Violations are subject to prosecution in state and local courts.

The Catron County Commission passed the third ordinance to protect the citizens of the county from current or potential violations of their Constitutionally protected property rights. 143 The ordinance defines private property and declares that all private property and private property rights within Catron County are fully protected under the Fifth and Fourteenth Amendments of the U.S. Constitution and under the Civil Rights Act. Accordingly, violations are subject to prosecution in state and local courts.

The fourth ordinance enacted was known as the “Interim Land Use Policy Plan.” 144 The Interim Land use policy Plan was developed to guide the use of public lands and public resources in Catron County and to protect the rights of private landowners until the comprehensive plan was adopted as an ordinance by the Catron County Commission. Once the comprehensive plan was adopted, the fourth ordinance was repealed.

Additional ordinances have been enacted, which are provided in Part I, Catron County Land Use Ordinances.

141 Catron County Ordinance No. 001-91 (see Part I, Ordinances).
142 Catron County Ordinance No. 002-91 (see Part I, Ordinances).
143 Catron County Ordinance No. 003-91 (see Part I, Ordinances).
144 Catron County Ordinance No. 004-91 (see Part I, Ordinances).
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Appendix 2

Public Input

A. SUMMARY OF CUSTOMARY LAND USE SURVEY OF CATRON COUNTY RESIDENTS

The results from customary land use survey forms provided to all Catron County residents (who have a listed phone number) are summarized in Tables A2-1 and A2-2 (as well as Tables A2-3 through A2-6 below). Of the 1,025 surveys mailed, 175 were filled out—a response rate of 17 respondents. Three conclusions are warranted from the tables. First, traditional, agriculture employment still dominates the working environment of Catron County. Second, customary land uses—those having continuity back to Catron County’s European settlement—are clearly the prevailing land use activities of today. Third, a significant number of residents earn income from more than one employment. This highlights not only the difficulty of making a living in Catron County, but suggests the flexibility and breadth of skills required to be a successful resident. More importantly, it emphasizes the desire and drive of residents to remain in Catron County.

Tables A2-3 and A2-4, derived from the survey forms discussed above, give an indication of the cultural commitment of Catron County residents to the freedom of a backcountry, natural liberty way of life. Table A2-3 shows that an overwhelming majority of survey respondents expressed the opinion that resolution of Catron County’s problems lay in the reduction of government interference, the expansion of local control, and the protection of local rights. More significantly, Table A2-4 shows that a majority of all respondents identified excessive government regulation, as well as other external restrictions on individual and community freedom, as the issue of concern of greatest significance to land use and land users in Catron County.

Tables A2-5 and A2-6, also computed from the survey forms discussed above, are instructive as to the cultural values held by contemporary Catron County residents. Table A2-5 ranks the various values that residents associate with living in Catron County. Interestingly, almost all of those values are extensions of the backcountry, natural liberty lifestyle that underlie their local culture. Almost every reason given for living in Catron County is tied to the desire for “elbow room” and the passion for independence from governing institutions. A the table suggests, people select Catron County as a residence for a quality of life that comes with good neighbors in a rural setting. Freedom, more than any other consideration, drives the decision of residents to move to, or remain in, Catron County.
### Table A2-1. Employment in Catron County

(Percent of workers by occupation)

<table>
<thead>
<tr>
<th>Occupation Category</th>
<th>Percent of Workers</th>
<th>Category Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture/Natural Resources Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock Production</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Farming</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Wood products Industries</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Outfitting/Guiding</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Trapping</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td><strong>Government Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Schools</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Local/State/Federal Gov’t¹</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td><strong>Services/Light Industries</strong>²</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td><strong>Retired</strong></td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td><strong>Retail Sales</strong></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Multiple Employment</strong>³</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

¹ Employment in the government sector may be understated. Reasons for this include: 1) low response rate to the survey from state and federal employees (possibly reflecting perceived job-related barriers to response or perceived separateness from local community), and 2) inclusion of some government employees in the category of multiple employments.

² This is a bound category that includes: construction, medicine, real estate, arts, electrical work, computer work, tourism, and the ministry.

³ Majority of respondents in this category listed more than three employments. In some cases, those employments included seasonal work with the Forest Service and temporary or part-time work with local, state, or federal government. Total employment in the government sector may approach 35 percent when these seasonal/temporary workers are counted. Employment in other sectors is also increased, through to lesser extent, when respondents listing multiple jobs are counted.
Table A2-2. Customary Land uses on Private & Public Lands in Catron County
(land uses by percent of respondents)

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food/Natural Resources Production &amp; Extraction Uses</strong></td>
<td></td>
</tr>
<tr>
<td>Firewood</td>
<td>53</td>
</tr>
<tr>
<td>Livestock Forage</td>
<td>36</td>
</tr>
<tr>
<td>Pinon Nuts/Berries/Spices/Medicines</td>
<td>31</td>
</tr>
<tr>
<td>Domestic Gardens</td>
<td>16</td>
</tr>
<tr>
<td>Farming (crops/orchards)</td>
<td>7</td>
</tr>
<tr>
<td>Wood products</td>
<td>5</td>
</tr>
<tr>
<td>Mining/Sand-Rock/Adobe Bricks</td>
<td>4</td>
</tr>
<tr>
<td><strong>Social &amp; Recreational Uses</strong></td>
<td></td>
</tr>
<tr>
<td>General Recreation (hiking, photography, camping, picnics, plant, &amp; wildlife watching)</td>
<td>22</td>
</tr>
<tr>
<td>Hunting</td>
<td>20</td>
</tr>
<tr>
<td>Social/Community Gatherings</td>
<td>14</td>
</tr>
<tr>
<td>Religious/Spiritual</td>
<td>10</td>
</tr>
<tr>
<td>Outfitting</td>
<td>2</td>
</tr>
<tr>
<td>Cemetery</td>
<td>1</td>
</tr>
</tbody>
</table>

¹ most respondents indicated multiple uses of private and public lands in Catron County. As a result, total percent of land uses exceed 100 percent. However, percentage figures do indicate for each specific land use the proportion of the population engaged in that use.
Table A2-3. Actions Needed to Protect the Land & Resources & Improve the Environment of Catron County
(ranking by frequency of recommendation)$^1$

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Frequency Ranking (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Gov’t. Interference/More Local Control/Protect Local Rights</td>
<td>25.0</td>
</tr>
<tr>
<td>Community Cooperation/Involvement</td>
<td>10.0</td>
</tr>
<tr>
<td>Improved Range Management</td>
<td>8.0</td>
</tr>
<tr>
<td>Improved Timber Management</td>
<td>8.0</td>
</tr>
<tr>
<td>Encourage Private Stewardship</td>
<td>8.0</td>
</tr>
<tr>
<td>Fight Outside Environmental Groups/Support Local Land Users</td>
<td>7.0</td>
</tr>
<tr>
<td>Environmentally sensitive Activities (solar &amp; wind power, cleaner industry, tourism/recreation)</td>
<td>7.0</td>
</tr>
<tr>
<td>Expand County Service (improve roads, promote small business, prevent ground water pollution, ensure future water supply)</td>
<td>6.0</td>
</tr>
<tr>
<td>Better Trash Disposal/Recycling</td>
<td>6.0</td>
</tr>
<tr>
<td>Stricter Subdivision Regulations</td>
<td>5.0</td>
</tr>
<tr>
<td>Restrict Off-Road Vehicle Use</td>
<td>2.0</td>
</tr>
<tr>
<td>Better Wildlife/Habitat Management</td>
<td>2.0</td>
</tr>
<tr>
<td>Eliminate livestock Grazing</td>
<td>0.5</td>
</tr>
<tr>
<td>Eliminate Logging</td>
<td>0.5</td>
</tr>
<tr>
<td>Eliminate mining</td>
<td>0.5</td>
</tr>
<tr>
<td>Fire Prevention</td>
<td>0.5</td>
</tr>
<tr>
<td>Predator Control</td>
<td>0.5</td>
</tr>
<tr>
<td>Change County Commission</td>
<td>0.5</td>
</tr>
<tr>
<td>Support Federal Land Agencies</td>
<td>0.5</td>
</tr>
<tr>
<td>Retain Land in Public ownership</td>
<td>0.5</td>
</tr>
<tr>
<td>Encourage Water Conservation</td>
<td>0.5</td>
</tr>
<tr>
<td>Greater use of Coal</td>
<td>0.5</td>
</tr>
<tr>
<td>Prohibit Coal Mining</td>
<td>0.5</td>
</tr>
<tr>
<td>Close Hot springs Overnight Camping</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

$^1$ Many of the recommendations listed above are shared by more residents than the frequency distribution would suggest. Often, respondents to the survey listed their principle recommendation without mentioning other secondary recommendations of importance. In other cases, respondents listed multiple recommendations. For that reason, the frequency distribution of recommendations is significant only in the relative sense of indicating the ranking of recommendations and not in the sense of indicating the ranking of issues and concerns and not in the sense of demonstrating their absolute distribution in the Catron County Population.
Table A2-4. Public & Private Land Issues in Catron County  
(rank by frequency of concern)¹

<table>
<thead>
<tr>
<th>Issue/Concern</th>
<th>Frequency Ranking (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive Government Regulation</td>
<td>16</td>
</tr>
<tr>
<td>Government Management Land</td>
<td>10</td>
</tr>
<tr>
<td>Threat of Environmental Extremism</td>
<td>9</td>
</tr>
<tr>
<td>Excessive Wilderness area/Restrictions</td>
<td>9</td>
</tr>
<tr>
<td>Protection of Private property</td>
<td>7</td>
</tr>
<tr>
<td>Livestock Overgrazing</td>
<td>7</td>
</tr>
<tr>
<td>Threat of Higher Grazing Fees</td>
<td>6</td>
</tr>
<tr>
<td>Land Abuse by hunters &amp; Fisherman</td>
<td>6</td>
</tr>
<tr>
<td>Threat of Public Purchase of Private Lands</td>
<td>5</td>
</tr>
<tr>
<td>Elk Numbers Excessive</td>
<td>5</td>
</tr>
<tr>
<td>Adequacy of Public Land Access</td>
<td>4</td>
</tr>
<tr>
<td>Excessive Development/Commercialism</td>
<td>4</td>
</tr>
<tr>
<td>Protection of Private property Rights</td>
<td>3</td>
</tr>
<tr>
<td>Opposition to Privatization</td>
<td>2</td>
</tr>
<tr>
<td>Excessive or Improper Logging</td>
<td>2</td>
</tr>
<tr>
<td>Preservation of Indian heritage</td>
<td>1</td>
</tr>
<tr>
<td>Threat of Flooding from Federal Lands</td>
<td>1</td>
</tr>
<tr>
<td>Sonic Booms</td>
<td>1</td>
</tr>
<tr>
<td>Private land Mismanagement</td>
<td>1</td>
</tr>
<tr>
<td>Excessive Deer Hunting</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

¹ many of the issues and concerns listed above are shared by more residents than the frequency distribution would suggest. Often, respondents to the survey listed their principle concern or issue without mentioning other secondary issues and concerns of importance. In other cases, respondents listed multiple issues and concerns. For that reason, the frequency distribution of concerns and issues is significant only in the relative sense of indicating the ranking of issues and concerns and not in the sense of demonstrating their absolute distribution in the Catron County population.
### Table A2-5. Reasons for Living in Catron County
(ranked by frequency of reason)

<table>
<thead>
<tr>
<th>Issue/Concern</th>
<th>Frequency Ranking (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference for Rural Life</td>
<td>23</td>
</tr>
<tr>
<td>Best Place to Live</td>
<td>21</td>
</tr>
<tr>
<td>Favorable Climate/Pure Air</td>
<td>10</td>
</tr>
<tr>
<td>Landscape/Scenery/Natural Environment</td>
<td>8</td>
</tr>
<tr>
<td>Part of Personal/Family Heritage</td>
<td>7</td>
</tr>
<tr>
<td>Friendly &amp; Good Neighbors</td>
<td>7</td>
</tr>
<tr>
<td>Location of Home &amp; Land</td>
<td>4</td>
</tr>
<tr>
<td>Desirable Employment</td>
<td>4</td>
</tr>
<tr>
<td>Good Schools, Low Crime, Community Centers, Low Living Costs</td>
<td>4</td>
</tr>
<tr>
<td>Ample Quantity &amp; Good Quality of Water</td>
<td>2</td>
</tr>
<tr>
<td>Proximity to Family</td>
<td>2</td>
</tr>
<tr>
<td>Low Taxes</td>
<td>2</td>
</tr>
<tr>
<td>Good Cattle Country</td>
<td>2</td>
</tr>
<tr>
<td>Don’t Know/No Choice</td>
<td>2</td>
</tr>
<tr>
<td>Recreation/Public Lands/Wildlife</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

¹ Many of the reasons listed above are shared by more residents than the frequency distribution would suggest. Often, respondents to the survey listed their principle reason for living in Catron County without mentioning other secondary reasons. In other cases, respondents listed multiple reasons for living in Catron County. As a consequence, the frequency distribution of reasons is significant only in the relative sense of indicating the ranking of reasons and not in the sense of demonstrating their absolute distribution in the Catron County population as a whole.

² Features of rural life that attract local residents to Catron County include: few people, peace and quiet, solitude, being close to nature, being distant from cities, “clean” living, remoteness, open spaces, mountains, and slowness of pace and lack of stress.

³ Many respondents gave the vague or generalized answer that Catron County was the “best place to live” or that they simply “liked” or “loved” Catron County. Although specific reasons for much can be said about the motives of residents. Clearly, this category of responses and the preceding category of responses (rural attributes) indicated that for most residents, living in Catron County is a matter of strong attachment to place and love for the land and it people.
Table A2-6. Catron County Residency
(residency status by percent)

<table>
<thead>
<tr>
<th>Residency Status</th>
<th>Percentage</th>
<th>Status Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents Born in Catron County¹</td>
<td>21</td>
<td>21²</td>
</tr>
<tr>
<td>Residents Not Born in Catron County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Residency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years or less in Catron County</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>10 to 20 years in Catron County</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>20 to 30 years in Catron County</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>30 to 40 years in Catron County</td>
<td>7</td>
<td>79³</td>
</tr>
<tr>
<td>40 or more years in Catron County</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

¹ Sixty-four percent of those born in Catron County had families present in Catron County for more than two generations.
² More than 30 percent of those not born in Catron County arrived as children, came as spouses to native-born, or were simply born outside of the county for lack of appropriate medical facilities.
³ Actual percent of non-native residents in the overall population of Catron County is probably much less than 79 percent. Non-native residents, especially among the growing population of translocated retirees, tend to have fewer children in their households than do native-born residents. As a result, the survey overestimates the non-resident share of Catron County’s population. Given this consideration, and the 30 percent near-relatives described in footnote 2, it is probable that more than 40 percent of the county’s population is part of, or has close familial ties, to the native born segment.

Table A2-6 is interesting because it shows the relative attachment of local residents to the area’s custom and culture. As footnote three of the table suggests, up to “40 percent of the county’s population is part of, or has close familial ties to the native-born segment.” More importantly, two-thirds of the population has lived in Catron County for more than 10 years. This finding supports the conclusion that cultural values spanning a century and a quarter strongly bind residents to the valleys, mountains, and plains of Catron County. It indicates the strength of community and the continuity of cultural values that have allowed so many people to weather the storms of economic change in the past and to face the severe economic uncertainties of the present. Nothing short of devotion to the land and its people can explain the tenacity of family and community in Catron County.

What is not revealed in the surveys of county residents is the rich social life that nurtures culture and gives strength to people in the presence of adversity. Random interviews were made with 40 families distributed evenly across the county. The results of those interviews reinforce the tabular survey data and add much needed human detail to the portrait of county culture. Family and community are strong in Catron County.
B. ISSUES OF CONCERN

Public comment has been received which indentified the following issues of concern. The policies and implementation strategies are to be developed under the advisement of the various committees, respective attorneys, and rulings of the Court.

B.1 Federal, State, & Private lands: Status & Impacts

Issue 1: Conversion of Private land to Federal & State Ownership: The presence of federal and state lands in Catron County adversely impact privately owned lands, obstruct and weaken the institution of private property rights, threaten custom and culture, and erode and deny the right of families, communities, and county government to self-determine their fate, security, and well-being through democratic means. Catron County citizens are concerned that any additional sales or transfers of private land into federal or state ownership will adversely impact local custom and culture and further endanger private property rights. They are also concerned that policies and actions of federal and state agencies place the lives, welfare, and property of county citizens in eminent peril.

Issue 2: Access Across Federal & State Lands. Reasonable landowner access across federal and state lands, whether for purposes of surface transport of people and products or subsurface transport of water to private inholdings, is required under current federal and state law and policy. However, federal land agencies often construe reasonable access in an arbitrary, narrow, inconsistent, and therefore unreasonable manner.

Issue 3: Federal Access Across Private Land. Federal land management agencies have entered without permission and trespassed upon deeded property to access lands under their jurisdiction. Further, federal agencies have threatened to make access across deeded lands a mandatory condition for authorized use of federal lands and have formulated policy to exercise the power of eminent domain to take access from private landowners unwilling to voluntarily comply with government demands.

Issue 4: State Access Across Private Land. The New Mexico State Land Commissioner has formulated policy to expand general public access onto leased state trust lands. In some cases, the commissioner has sought to obtain by eminent domain general public access across private lands.

Issue 5: Public Access Liabilities for State & Federal Land Lessees. Lessees of state trust lands face potential liability burdens as the State Land Office pursues policies to open state trust lands to the general public. The inability of authorized users of Forest Service and BLM lands to control access on federal property also creates potential liability threats.

Issue 6: Deficiencies of Inappropriate or Inadequate Monitoring. Inappropriate or inadequate monitoring of natural resources in Catron County has: 1) Contributed to poor
land management; 2) diminished the scientific soundness and credibility of federal and state land management decisions; 3) Undermined the harmony and productivity of the land community of people and nature; 4) Resulted in decisions and actions by federal and state agencies destructive of property rights; and, 5) Needlessly and unjustly threatened local custom, culture, community stability, and democracy.

**Issue 7: Deficiencies in Information Sources.** Poor, inaccurate, and outdated information has created barriers to the resolution of many natural resource problems in Catron County. It has: 1) Placed obstacles to move effective natural resource administration; 2) Curtailed the ability of individuals to pursue superior stewardship of natural resources; and 3) Prevented the lands and people of Catron County from enjoying the full benefits of a healthy and productive environment.

**Issue 8: Law Enforcement on Federal Lands.** One of the features that contribute to social and environmental quality in Catron County is the right of the people to choose and exercise final authority over the persons selected to enforce the laws of the county and to protect life, liberty, and property. Currently, federal land management agency law enforcement officers have patrol and arrest authority on Forest Service and Bureau of Land Management properties. In addition, other federal law enforcement agencies exercise similar authority, often without coordination with county government. Such authority demeans custom and culture and deprives the people of Catron County of the fundamental rights to self-rule and self-determination. In addition, federal law enforcement activities on Bureau of Land Management properties are in violation of the Federal Land Policy and Management Act (43 USC 1733(c)(1)). The act specifies that when necessary, “in enforcing federal laws and regulations relating to the public lands or their resources [the Secretary] shall offer a contract to appropriate local officials having law enforcement authority within their respective jurisdictions with the view of achieving maximum feasible reliance upon local law enforcement officials in enforcing such laws and regulations.” The BLM, as agent of the Secretary of the Interior, has not offered the mandated contract to the Catron County sheriff for law enforcement services on BLM lands.

**Issue 9: Nuisance Lawsuits.** Environmental nuisance lawsuits filed by special interest groups outside of Catron County, and intended to obstruct or stop authorized land use activities on federal property within Catron County, are proving costly to citizens and county government. Further, federal and state agencies are not subject to accountability in their management of natural resources.

**B.2 Agriculture**

**Issue 10: State & Federal Land Grazing Conflicts.** Conflicts between local land users, elements of the general public, and state and federal agencies are threatening traditional agricultural activities in Catron County. Livestock grazing is one of those activities. Today, it is an integral feature of local economy and community life. And like local economy and community life, it is part and parcel of the ecology of private and
public lands. Its existence has deep and nurturing roots in the valleys, plains, and mountains of Catron County—roots that extend beyond the man-made boundaries of deeded lands, national forests, state trust lands, and public domain.

Ranchers, however, are concerned about their ability to continue using federal and state trust lands in view of the conflicts. They are especially concerned with the loss of control over their livelihoods caused by the conflicts and the prospects that loss holds for their children. At the same time, elements of the general public have expressed displeasure with the use of public lands for livestock and have perceived livestock as being inherently damaging to the land. Aggravating this displeasure is belief that the livestock industry is subsidized at taxpayer expense. Further, state and federal agencies, facing strong sentiment against traditional agriculture and confronted with escalating administrative costs, are deemphasizing livestock on public lands in favor of other uses and values. Finally, governmental agencies and elements of the general public steadfastly dismiss the claims of the public ranching community to rights and interests in federal and state lands and increasingly discount the ability and desire of the ranching community to steward the land.

**Issue 11: Self-Determination vs. Public Interest.** The term public interest is commonly used by federal and state agencies to explain and justify usurpation of county power and self-determination. By so doing, custom and culture are threatened, local democracy is endangered, accountability for land and resources of Catron County are misplaced, and the social and ecological integrity of the human community is violated and diminished.

**Issue 12: Emergency Relief for Drought Conditions.** Currently, New Mexico counties suffering extreme drought can be declared by the governor to be in a state of emergency, thus exempting livestock owners from being taxed on receipts arising from emergency livestock sales. However, drought conditions often affect only a small portion of a county, particularly on as large as Catron County, thus disqualifying the county for emergency proclamation and relief from taxation. Nonetheless, county residents who are subject to drought conditions (whatever their numbers may be) deserve equal protection under New Mexico law. They believe that they should be provided emergency relief from state taxation on what constitutes necessary yet involuntary livestock sales.

**Issue 13: Fencing Law Conflicts.** Federal agency policies and state fencing laws are in conflict. State law requires parties seeking to exclude domestic stock to fence such domestic stock off their lands and properties. Policies of the Forest Service and Bureau of Land Management, however, require livestock owners to fence cattle from surrounding federal properties. By enforcing such a requirement, the federal government is in direct violation of state fencing law. Moreover, private land owners grazing livestock find themselves in jeopardy should their livestock wander onto federal—or for that matter, state—lands. For these reasons, custom, and culture predicated on the tradition of the open range and the historic propriety of fencing off livestock, is being violated by federal policies (and, in some cases, by action and policies of the New
Issue 14: Obstacles to Farming. Small-scale agricultural crop production is part of the custom and culture of Catron County. Past and present residents have relied upon home gardens to provide fruits and vegetables to supplement foodstuffs acquired from retail stores. Moreover, irrigated bottomlands have been historically planted in corn, alfalfa, and, at one time, sugar cane for syrup production. Today, customary agriculture is in decline in Catron County. Residents interested in pursuing small-scale crop production point to obstacles at the regional, state, and local levels that currently prevent resurgence of farming activity in the county. Among the obstacles identified are: 1) Lack of marketing opportunities; and 2) discriminatory state laws. More importantly, Forest Service administration of the Gila National Forest has contributed to the decline of small-scale agriculture. Areas once used by local citizens for crops and orchards are now under the jurisdiction of the Forest Service and are no longer available for cultivation. Further, agency mismanagement of upland watersheds, particularly in wilderness, has disrupted stream flows in former agricultural areas. Some rivers and streams that once flowed perennially are now intermittent and subject to periodic and catastrophic floods.

B.3 Wildlife

Issue 15: Adverse Impacts of State & Federal Wildlife Management. Federal and state agencies, in their respective roles of habitat and wildlife managers, have formulated wildlife policies and implemented wildlife practices that have:

1. Damaged privately and publicly owned lands and resources.

2. Diminished or destroyed formal and customary rights in federal lands held by citizens of Catron County.

3. Undermined the practice of democracy in Catron County.

4. Interfered with the ecologically superior working of private property incentives and free market processes in regard to habitat and wildlife management.

5. Unnecessarily placed people and wildlife of Catron County in conflict. Wildlife, including fisheries, are valuable assets to Catron County residents, providing enjoyment, inspiration and livelihood. Increasing wildlife numbers and expanding fisheries pose a threat and conflict to county residents only to the extent that control over them is held disproportionately by federal and state agencies and accountability and responsibility for wildlife and fisheries is diffused by bureaucratic structures and by a national public participation process that lacks accountability. However, to the extent that control over wildlife is wielded by local residents and accountability and responsibility is
assigned locally to those most impacted by the land and its life, then wildlife, fisheries and people can and do coexist beneficially and harmoniously.

6. Deprived private landowners of the right to develop and use their privately owned lands and natural resources in the manner of their choice. Specifically, private landowners have found their lands and the forage on those lands damaged or destroyed as the result of state and federal wildlife plans and activities—plans and activities in particular that have allowed the uncontrolled expansion of the Catron County elk herd. Further, private landowners have not been allowed redress or compensation for resource damage resulting from wildlife plans and activities. This situation threatens private property rights and places the people, the land, and the natural resources of Catron County in imminent jeopardy.

**Issue 16: Wildlife & Domestic Livestock Forage Conflicts.** Catron County citizens holding grazing permits on public lands possess formal and customary preferences in the use of forage. State and federal agencies, however, have taken actions to allocate forage from customary uses (e.g., livestock grazing) to uses not consented to by either the holders of grazing permits and leases or Catron County government. Further, holders of grazing permits and leases are not allowed, under state and federal law, to allocate their rightful forage to wildlife for either personal profit or personal enjoyment.

**Issue 17: Predator Control.** Animal Damage Control programs in Catron County are jointly administered by the United States Department of Agriculture (USDA) and the New Mexico Department of Agriculture (NMDA). Further, predator control on federal lands administered by the Forest Service and the Bureau of Land Management can be conducted only by agents of USDA and NMDA. The current system of predator control has served the interests of county citizens within the constraints set by law and budgetary means.

However, reliance on state provided predator control is not compatible with the objectives of the comprehensive plan for the following reasons:

1. It denies full self-determination to local residents in matters relating to protection of life and property;

2. It entails expenditure of public monies in Catron County that a) are perceived as subsidies; b) compromise the independence of Catron County; and c) entail a tax burden that should, by right, be assumed by those benefiting most from predator control;

3. It involves administration costs that could be avoided by direct, local action;
4. It is, despite measurable benefits to local residents, inconsistent with other efforts in Catron County that purposely strive to minimize federal and state intervention in the lives of Catron County citizens.

**Issue 18: Endangered Species Act vs. Economy & Private Property Rights.** The Endangered Species Act (ESA) of 1973, as amended, is the mechanism for the National’s goal to preserve all threatened and endangered species. Habitat protection and recovery plans are critical parts of the Act. Environmental interests have recognized the utility of the ESA as an opportunity to slow or halt commercial development. In particular, the judicial system has provided them with the means to pursue this goal. Recent ESA litigation has been successful in slowing land and natural resource development and has adversely impacted the economic and social life of many American communities. Economic and social impacts are partly the result of how the act is interpreted and implemented by federal agencies. Three specific features of the act and its implementation are notable:

1. Private lands have been brought under the umbrella of ESA restrictions largely by agency regulatory interpretations of the act.

2. The scope of the ESA is apparently unlimited. The ESA defines the term “species” as “inclu[ing] any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”

3. Preservation or recovery efforts are beginning to wreak havoc on social and economic parameters of society.

The ESA threat to private property rights is illustrated by tactics recently employed by the U.S. Fish and Wildlife Service (FWS). The FWS has taken the broadest view in interpreting what actions qualify as a “take” of a listed species and also what constitutes “critical habitat.” In passing the act, Congress did not specifically place restriction on private lands, but it did define “take” as including “harm” to listed species. The FWS defined “harm” by regulatory action as **significant** habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.” [Emphasis added]

The FWS has stretched the interpretation of “harm” and “take” to the limit. For example, in 1990, the FWS issued guidelines restricting timber harvesting activities by private landowners around northern spotted owl nests in areas of up to 3,960 acres. Although the guidelines were not mandatory on private landowners, the FWS let it be known that noncompliance could result in a “taking” investigation by the agency. Violations can carry severe civil and criminal penalties.
The ESA also requires a process whereby subspecies and “distinct population segments” of species are considered for listing as threatened or endangered. This action results in the protection of small populations of plants and animals even though the same species or subspecies may be abundant elsewhere. For example, in New Mexico and Colorado, the Colorado squawfish has been protected in the San Juan River under ESA requirement to the detriment of important water settlements and projects such as the Animas-La Plata Water Project. Ironically a bounty is paid for squawfish on portions of the Columbia River because they feed on trout and salmon. In Catron County, habitat for the Mexican spotted owl, (which is one of three subspecies of spotted owl) is being given special, restrictive management emphasis by the Forest Service and is being considered by the FWS for listing as a threatened species. The national proliferation of petitions that seek threatened and endangered status for various species by the FWS threaten the economic stability, the independence, and the custom and culture of rural America.

Further, the ESA requires that recovery plans be developed and implemented “for the conservation and survival” of listed species “unless he [the Secretary] finds that such a plan will not promote the conservation of the species.” Recovery plans can entail severe constraints on human activities on both public and private lands. Traditional uses of land must give way to restrictions and regulations that are deemed necessary to assist the recovery of a species on sites where threatened or endangered individuals exist. If no individuals occur in a potential habitat, they could be introduced to reestablish the species. For example, the FWS is presently preparing a recovery plan for the Mexican wolf. Strong consideration is being given to reintroduction of the wolf into New Mexico and Arizona. Wherever the wolf is released, or wherever it disperses, including Catron County, restrictions and regulations impeding human activity will accompany its reintroduction. Adverse impacts to the livestock and timber industries are possible.

Federal agencies other than the FWS have interpreted and implemented the ESA beyond what is required in law and regulation. Under Section 7 of the act, no federal action may jeopardize listed species or adversely affect designated critical habitat. If the FWS or National Marine Fisheries Service advises that a listed species is present in the area of a proposed agency action, that agency must consult with the appropriate Secretary. If a species is under consideration but is not listed, it advises other pertinent agencies that the species is sensitive” and recommends that special management consideration be given to the species. Although not mandatory on other agencies, the process has affected management by the Forest Service in several cases. For example, the Mexican spotted owl was classified as “sensitive.” Presently, the northern goshawk is being treated as “sensitive” and is receiving special restrictive management consideration by the Forest Service.

In view of the development and application of the ESA nationwide, Catron County and its citizens face imminent threats to private property rights, local democracy, and custom and culture. Land use and livelihood are endangered by the bureaucratic intrusions and
coercive yielding of federal power to achieve species protection. In addition, recent trends in federal wildlife policy have begun to emphasize biological diversity standards in the management of federal lands. Such standards threaten to expand the scope and implication of the ESA by granting to all species and habitats the same protection currently given only to threatened and endangered species and habitats. Like the ESA, biological diversity standards that are enforced by federal agencies pose an immediate and grave threat to the health and welfare of Catron County.

**B.4 Timber & Wood Products Industry**

**Issue 19: Forest Health & Decline in Resource Yields.** The major problem with southwest forests is the increasing density of forest stands. According to the Forest Service Southwestern Region annual Report of Fiscal year 1990, “the general health of forests…continues to decline, as indicated by the incidence and severity of insect and disease infestations.” The Gila National Forest Environmental Impact Statement (EIS) supports that finding: “Over time, the tentatively suitable timber not managed will become slow growing and less epidemics will increase with time.” In addition, the EIS warns, the risk of catastrophic fire will increase over time in the absence of appropriate management.

The Southwestern forest ecosystem is at risk according to recent studies by the northern Arizona University School of Forestry. Covington and Moore¹ conclude that southwestern forests face the peril of increased tree densities and fuel loads unless appropriate silvicultural practices are applied. In addition, they caution, trees that remain from presettlement days may be eliminated at an accelerated pace unless corrective actions are taken.

Risks to other forest-ecosystem processes, as stand densities and fuel loads increase, include:

1. Reduction in water yield.
2. Reduction in nutrient cycling.
3. Decrease in energy cycles and solar requirements, resulting in reduction of herbaceous undergrowth.
4. Negative, cumulative impacts on riparian areas.

5. Watershed deteriorations.


**Issue 20: Health & Welfare of the Custom & Culture of the Wood Products Industry.** Timber and wood products are an essential element of Catron County’s custom and culture and a vital economic activity for many of the county’s residents. Yet, control over timber resources is wielded by distant bureaucracies and disproportionately influenced by individuals and groups having no regard for the people and their ties to the land and the forest. As a result, harvest levels have been reduced and the health and welfare of Catron County citizens have been imperiled.

**Issue 21: Frivolous Lawsuits Against Timber Harvest Planning:** Special interest groups are filing increasing numbers of lawsuits that deny local communities their participatory rights in federal timber planning. Many of these suits are filed to halt or obstruct timber harvests to achieve special interest objectives. Often, they lack a legal or scientific basis. However, the cost of those suits are disproportionately paid by local residents who rely upon national forest timber for their livelihood, whether directly through employment or indirectly through circulating timber dollars. County residents facing timber harvest lawsuits not only lose time and capital in fighting them, but often find their businesses significantly impacted by harvest injunctions. Further, individuals or groups initiating “frivolous lawsuits” are immune under current law from accountability for their actions and for the damages they cause to individuals, families, and communities.

**B.5 Water: Riparian Areas & Wetlands**

**Issue 22: Water & Real Property Takings by Federal Agencies.** Federal agencies claim jurisdiction over private property that is defined as being wetlands or that is included within wild and scenic river corridors. In addition, federal agencies are advancing claims to reserved water rights on national forest, and public domain lands. As a result, many federal actions entail takings implication—either by infringement upon existing water rights or by imposition of federal authority over real property that is influenced by or in close proximity to natural waters. Furthermore, public lands containing wetlands and riparian areas are increasingly subject to federal management and use restrictions, many of which entail partial or complete takings of private rights, interests and assets held in federal and state lands. Finally, private water rights on public lands are subject to takings when beneficial use of private waters are curtailed or eliminated by general rule, just compensation has not been granted for either private land or public land takings as required by the U.S. Constitution.

**Issue 23: San Francisco River Management.** The San Francisco River (river) is facing significant problems today, and those problems are likely to worsen over time without a local management framework oriented toward finding the best solutions. Local
communities are addressing issues and problems as they arise. Most of the problems on
the river have been going on for years, and abated through local involvement. But there
has been a growing concern that outside forces will supersede local problem solving.
Already, outside forces are pressuring to eliminate the traditional economies and
customary uses of the river, and alter the nature and character of the river and the
communities that dwell beside it. Citizen concerns for the future of the river include:

1. Protection of private rights from government “takings”, trespassing, littering, and
   vandalism.

2. Potential loss of customary uses, agricultural lands, and recreational activities
   along the river’s corridor.

3. Providing for commercial uses of the river’s corridor while protecting river
   values.

4. Water quality and the threat of increasing pollution, sedimentation, and scouring.

5. Water quality and the threat of increasing pollution, sedimentation, and scouring.

6. Protection and enhancement of the riparian habitat, fish populations, wetland
   vegetation and wildlife.

7. Private and public river access for purposes of recreation, resource and
   commercial; facility maintenance, and law enforcement.

8. Informing and educating the public and landowners about opportunities and
   constraints in future river use.

9. Maintaining and improving the traditional way of life associated with the San
   Francisco River.

There have been a variety of efforts on the national level to plan for, and protect, the
river. The Forest Service, which manages much of the land adjacent to the river, began
its land management planning process for the river and its corridors in the late 1970’s.
A decade later, an Arizona based conservation group, Arizona Rivers Coalition, began
efforts to have Congress designate the river as a Wild and Scenic River.

The objective of Catron County designation of the San Francisco River is to provide
ongoing local control of the river and, at the same time, to provide for a local river
management option to federal wild and scenic river designation. The designation also
ensures protection of the river in a manner consistent with Catron County custom and
culture. It places authority for the river’s future in the hands of those who use it and who
live along its banks.
Historically, communities have looked to rivers for life; today Catron County must look to community resources for its future survival. The river is one of those community resources. The goal of designation is to recognize and protect all the private uses of the river and to minimize harmful impacts to the river and its associated resources.

Clearly, farming and ranching have been a continuous and vital part of the economy and way of life of the lands surrounding the river. Several thousand years prior to the arrival of the first European settlers, the Mogollon and Mimbres people irrigated fields by building canals to divert water from the river and its tributaries. The first European settlers built crude dams to divert water for crop irrigation. Today, use of the river’s water continues at even higher levels and is dedicated to a range of domestic and commercial uses.

It is impossible to put a dollar value on the economic contribution of the river and its related resources. It generates revenue mostly from cattle ranching and crop farming, but it also provides supplemental income to residents of Catron County from recreation and tourism. The river is also intricately tied to property values and rights as a part of local custom and culture. Finally, it is important for attracting new residents and businesses to the county. All things considered, the San Francisco River provides a unique way of life to the people of Catron County.

**Issue 24: Watershed Management (see issue 19).** Management of water resources to insure adequate supplies for current and future demands is a major concern for county residents.

**B.6 Other Environmental Resources**

**Issue 25: Wilderness Designation Impacts.** Massive areas of Catron County have been designated as wilderness or as other protected and withdrawn areas (e.g., Areas of Critical Environmental Concern and wildlife refuges). In addition, other areas have been considered as candidates for Wilderness Study Area designation, creating what amounts to defacto permanent wilderness. The effects of these designations have been to reduce the land base upon which county residents can pursue a livelihood and to further threaten and endanger the foundation and prospects of local custom, culture, and community economic stability. Further federal, state, and private lands adjacent to wilderness and other protected areas have been subject to use constraints as part of federal wilderness and preservation policies. This fact has compounded the economic and social dislocations generated by wilderness and other special designations.

**Issue 26: Ecosystem Impacts from Wilderness Management.** Massive wilderness areas in Catron County that are managed by the Forest Service are deteriorating in ecological condition as a result of wilderness law and policy that constrains human intervention. One consequence has been the deterioration of habitat, resulting in diminished biological diversity. Although the effect of this deterioration on threatened or endangered species is unknown, possible adverse impacts cannot be ignored. Further, deterioration resource conditions combined with regional expansion of some species
(e.g., elk) are creating undue and unnecessary conflicts between wildlife and human custom and culture. Repercussions from these emerging conflicts undermine positive stewardship programs and may place threatened or endangered species in greater jeopardy.

**Issue 27: Impacts of Federal & State Subsidization of Recreation on Federal & State Lands.** Federal and state subsidization of recreation on federal and state lands has created barriers to the emergence of alternative and superior private sector recreational enterprises. Further, private recreational activities currently allowed by federal and state agencies on public lands (e.g., guiding and outfitting) are seasonal and incapable of supplanting traditional economic activities in Catron County.

**Issue 28: Off-Road Vehicle Use.** Uncontrolled off-road vehicle (ORV) use on federal lands has proven detrimental to the environment of Catron County. Such use, if also allowed on state lands, would prove no less detrimental.

**Issue 29: Archaeological Surveys & Clearances.** Policies and regulations at both the state and federal level requiring archaeological surveys and clearances as preconditions to federal and state land use have proven costly to the taxpayers of Catron County and to the enterprises that sustain the county’s livelihood. Much of that cost has been generated by extensive delays in performing archaeological surveys and issuing clearances—processes that are complicated by duplicative, oversight authority at federal and state levels.

**Issue 30: Archaeological Sites on Deeded Lands.** State archaeological policy and regulations can and do violate property rights when deed lands are found to contain archaeological findings.

**Issue 31: Cultural Resource Economic Opportunities.** Commercial opportunities exist in cultural resources, but federal and state laws and policies create barriers to the development of those opportunities on federal, state trust, and private lands.

**Issue 32: Contemporary vs. Ancient Cultural Resources.** Cultural resources are more than persisting fragments of antiquity. Culture is also a living entity, an organic and changing set of values, beliefs, and social forms that add richness and diversity to modern life. Significantly, federal and state laws and policies frequently ignore or dismiss the importance of contemporary culture in the management of federal and state trust lands. They preclude its contribution, not only to the meaning and worth of local community, but its significance to society at large. Moreover, they neglect the potential it holds for improving land stewardship and enhancing the environmental potential of public lands for all American.

Yet, unless contemporary culture is granted consideration in federal and state trust land use planning, there will be no additions to cultural heritage beyond what exists today. Contemporary culture, if ignored or denied, may simply disappear from remembrance and not be available to future generations to experience and enjoy. Lost in the demise of local culture is not only one small fragment of humanity’s rich diversity, but a promising
Alternative to escalating homogenization of society and the implications that homogenization holds for the environmental future of mankind and the ecological fate of the planet.

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This plan is being submitted to the public for continuing comment and participation in amending and implementation. There have been nine county-wide public meetings to solicit issues and concerns. The policies and implementation strategies contained in this document were developed from the meetings mentioned above. Part I, the Catron County Water Ordinances converts the implementation strategies and policies, mentioned above, into local law. The Southwest New Mexico Regional Water Plan is the foundation of the information found in Part II. That information was augmented with a Northern County water survey and other research by the Board.

The Water Advisory Board and the citizens of Catron County wish to express their appreciation to Elvidio Diniz of Resource Technology, Inc. of Albuquerque without whom this plan would not exist. The Southwest Regional Water Plan and this document are the product of an excellent team assembled by Mr. Diniz. We would also like to express our appreciation to the citizens of the county and many people outside the county who contributed many thousands of volunteer hours to make this plan a reality.
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## Water Plan

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The primary purpose of this water plan is to identify and evaluate the options available for meeting water needs and uses in Catron County over the next forty years. Long range planning for water resources protection, development, management, and conservation in the county has been an intensively discussed local issue at least since the 1935 Globe Equity Decree which apportioned water in the Gila River Basin.

Obviously, in a water scarce area, water issues have always been and will continue to be of primary concern to area residents. Limited surface supplies, declining ground water levels, Court decrees, interstate compacts, and declared underground water basins limit and regulate the use of this most essential resource. Further restrictions to the use of available water are existing and potential deterioration of water quality by upstream or adjacent uses.

Acting upon the recommendations of the Water Advisory Board the Catron County Commissioners initiated this Plan to ensure the rational use of long term water supplies, to coordinate the timely construction of appropriate water projects, and to encourage water conservation throughout the county.

The Plan is premised upon the following assumptions:

1. Each area of the county is intrinsically valuable.

2. The citizens of the county are interested in controlling their water future rather than being controlled by it.

3. The citizens of the county are aware of the need for water conservation to insure that we have enough water in the future.

4. Our traditional and fundamental prior appropriation system of water law shall be maintained.

**Objectives**

The origin of all natural water supplies is rainfall or snowfall which runs off as surface water or infiltrates to form ground water. In Catron County extensive ground water pumping could reduce surface water supplies. This reduction of surface flows can impact existing and future interstate and international water compacts and existing and future interregional and interbasin agreements within New Mexico.
In order to reduce these consequences, local water rights should be protected, and developed to the fullest extent employing a strong conservation ethic. Future water development should not be overly restricted, and if interstate of inter-basin restrictions become a limiting factor, alternative solutions should be developed. This is one goal of the water plan.

Also, local competition for water among agricultural, industrial and municipal interests should not restrict growth potential of any area. Therefore, this water plan gives equal priority to all local uses and only considers the reduction of one use to benefit another when all other options are exhausted. Consequently, another goal of this plan is to increase public awareness of the importance and need for local planning of long term water resources.

Based on the existing surface and ground water supplies in Catron County, this plan evaluates existing and future water uses and needs on a sub-area (local) basis and recommends actions to address the water problems of each sub-area. Using these results, local communities should develop greater understanding of their individual problems and potential solutions so that local water plans may be developed in accordance with this plan.

Precipitation, surface water and recharged groundwater are the only renewable components of the water resource system. Groundwater in the topographically closed basin (with no stream flowing in or out) is a finite resource; in a tributary (with a stream flowing in or out) aquifer, groundwater use will eventually affect the surface flow system. Therefore, this plan has evaluated a number of potential surface water storage and development projects.

The 18,000 acres feet allocation of Gila River water to New Mexico (discussed later) is the only significant new water resource available to a majority of water users in the study area.

This plan is intended to expand upon water planning efforts by others by providing some insight into localized water issues and needs, and to reinforce the need for such projects using local criteria and concerns.

Therefore, this water plan is expected to guide water management in the county by identifying critical water deficiency conditions and potential supplies to meet these deficiencies. Proper water resource management will only be possible if the magnitude and location of water needs are well understood.

Current levels of water use and projected future requirements are based on available data. The results of previous planning efforts as included in this plan may not be sufficiently reliable because of a lack of specific data or inadequate computer modeling. Only detailed localized modeling and analysis, which should be a natural follow-up to this effort, will answer the difficult localized questions.

Water is the most important resource next to air. Therefore, there is concern in Catron County about both the quantity and quality of available water. Any future economic
development or population growth will require securing enough water for those purposes. The people of Catron County should be cautioned that, just because we may not want to grown economically, or in population, the water will be used which would preclude any additional acquisition of water. That use will occur in our neighboring counties in New Mexico and Arizona.

The county has several drainage basins and has varied land forms, geology, soils, vegetation, climates, land uses, and demographics. This mosaic presents a major problem to establishing a rigid water plan for the entire county. It is not the desire of the Water Advisory Board nor the vast majority of county residents for the county to establish a “zoning” document that dictates how private water right owners are to manage water. The long term goal of this plan is to: 1) Provide the information necessary for individuals and county government to make wise decisions on water use; 2) Protect existing water right holders from the restrictions on the use or loss of their right; and 3) Provide for the future water needs of Catron County.

The Water Plan is divided into two distinct parts. Part I, Catron County Water Ordinances, converts water policies and strategies into local law. Part II, the Catron County Water Plan describes what is known about water availability and quality, and Water Law.

Part I, Catron County Water Ordinances, addresses the needs and concerns expressed at nine public meetings and other public comments received over the last two years. The primary goal is to insure that the citizens of Catron County are given the best opportunity for individual and local control of their water resources. The ordinances prescribe how the County Commission, Basin Water Advisory Boards and Catron County Water Advisory Boards are organized and required to function. These Ordinances also define the expected intergovernmental relationships with Federal and State agencies.

The degree of concern over the control of water planning was manifest in the unanimous citizen demand that all Water advisory Boards be composed of elected members. This concern was also manifest in the demand that control be accomplished basin by basin. To that end a transition element has been made part of the Catron County Water Plan Implementation Ordinance.

There are two underlying legal principles that area the foundation of Part I, they are: 1) Catron County recognizes the principle of prior appropriation and the New Mexico State Water Laws as they exist at the time this plan is adopted; and 2) The citizens of Catron County deny any Federal claim to water or reserved water other then what is allowed under guidelines established in U. S. vs. New Mexico.¹

The recognition of water rights as a basic property right is a key element in understanding the Catron County Water Plan. No attempt has been made to dictate how or where water is beneficially used. The jurisdiction over the transfer

¹438 US 696 57, L Ed 2d 1052, 1978
and use of water is constitutionally vested in the State Engineer and Interstate Stream Commission.

Once a water right is recognized as a basic property right, the protection of its quality and quantity becomes the responsibility of the owner, neighboring property owners, and government. The owner has an immediate interest in not contaminating or diminishing the quantity of water available for their own use. Neighboring property owners become responsible for contaminating or damaging the availability of the common water source. Strict liability is the desired governing force and every effort should be made to keep “Government” as a third party enforcer out of the process of regulation. This does not mean that government has no role. The value of water, if left to market forces, will insure that its quality, availability and application to best use will be protected. Federal, State, and County governments should be equally involved in insuring that no individual’s rights are violated.

There are findings and interpretations in the Southwest New Mexico Regional Water Plan (RWP) that the Water Advisory Board and other citizens questioned and in some cases changed the wording to produce Part II, Catron County Water Plan, along with the appendices of the RWP (under separate cover) that apply to Catron County. However, we felt the RWP created an excellent foundation for the data section of the county plan. Water plans must be flexible and require regular updating. Therefore, Part II was adopted by Resolution of the County Commission. The citizens of Catron County are encouraged to read and participate in the amending of this section as times goes on and relevant data is gathered. Adoption by Resolution creates the flexibility required to have a workable plan.

Conservation of water is one of the major items covered in Part II. Being more efficient with the water we use has no rewards under the law of prior appropriation (see Chapter 1 and Appendix 1). The discontinuance of use, by conserving, subjects the water right owner to forfeiture of their right. This is one reason for proposing the development of Water Banks. This feature will allow county residents to “invest” water rights not being used into a water marketing entity. The creation of a water bank will require State legislation and therefore is a future project.

Because the cost in time and money in acquiring information is often the reason bad resource use decisions are made, the water plan aims to establish a central information source. A primary duty of the Water Advisory Boards will be to gather and distribute information on water to the public. The production of a Water Rights Handbook will be one of the first items developed by the Catron County Water Advisory Board. This handbook should prove useful for new and native citizens alike. A future goal will be to develop high school level curriculum to pass this knowledge on to future generations.
Glossary of Terms

The following are definitions of terms as used in the Catron County Water Plan.

Acequia
An irrigation ditch.

Acre-foot
The volume of water required to cover one acre to a depth of one foot.
It is equal to 43,560 cubic feet or 325,851 gallons.

Agency
1. The federal government and any officer, agency, board, commission, department, instrumentality or similar body of the executive branch of the federal government.
2. This state and any officer, agency, board, commission, department, instrumentality or similar body of the executive branch of state government.
3. Any political subdivisions of the state including cities, towns, counties, or other public bodies exercising regulatory authority or control in the state.

Appropriate
To divert or impound water for beneficial use.

Appropriation
Diversion or impoundment of water for beneficial use.

Aquifer
A geologic formation that contains sufficient, saturated, permeable material to yield a usable quantity of water to wells.

Basin
A geographic area from which surface water flows, infiltrates to declared or undeclared underground aquifers of is drained into a specific river as established by the State Engineer.

Beneficial Use
The use of water by humans for any purpose from which benefits are derived, such as domestic, municipal, irrigation, livestock, industrial, and recreational.
Critical Water Area
A drainage basin, underground aquifer or watershed that is protected because of its unique contribution to the supply or quality of water.

Conservation
Most efficient use for insuring the availability of resources.

Contaminate
Introduction of unwholesome or harmful wastes.

Coordinate
Performing tasks with another person as equals, of the same rank, order, degree, or importance; not subordinate.

Declared Underground Water Basin
A defined geographical area in which the appropriation of ground water is regulated by the State Engineer.

Depletion
That part of a water withdrawal that has been evaporated, transpired, incorporated into crops, vegetation or products, consumed by man or livestock or otherwise removed.

Deposited Water, Water Right, Real Estate or Other Property
A water, water right, real estate or other property temporarily transferred to a Water Bank to be used by the Bank for the purposes established by the local water authority.

Drainage Basin
A geographic area from which surface water flows, or is drained into a specific river.

Duty
Amount of water allowed to be diverted or pumped to create the consumptive use assigned to a water right.

Evapotranspiration
Process by which water is returned to the air through direct evaporation or by transportation of vegetation.

Fully Appropriated
When all available water has been reserved for existing water rights.

Groundwater
Water located beneath the surface of the earth.
Groundwater Mining
Withdrawal of water from an aquifer exceeding the recharge, causing a decline in the groundwater level.

Groundwater Recharge
Addition of water to the zone of saturation, either natural or artificial.

Historic
Chronological human record of information derived in accepted methods, i.e. from affidavits, photographs, news accounts, diaries, treaties, laws, declarations of homesteads, deeds, land patents or other reliable documentation.

Historical
Description of chronological human record of information derived in accepted methods, i.e. from affidavits, photographs, news accounts, diaries, treaties, laws, declarations of homesteads, deeds, land patents or other reliable documentation.

In-Stream Flow
Defined amount of moving surface water flow along a watercourse that survives after beneficial use has occurred that is defined by substantial historic, scientific and commercial information presented in a manner that would lead a reasonable person to reach the same conclusion.

Interstate Compact
Agreement between two or more states that determines how the water of an interstate stream or aquifer is apportioned between states for beneficial use.

Local Basin Water Advisory Board
A locally elected body operating under the provisions of the Catron County Water Plan Implementation Ordinance in each declared or undeclared water basin in the County.

Local Water Authority
Any political subdivision governed by a locally elected body.

Playa
Shallow natural surface depression that collects precipitation.

Person
The state or any agency, institution, commission, municipality, or other political subdivision thereof, federal agency, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any institution, political subdivision, agency, or public or
private corporation.

**Prior Appropriation**
Doctrine that entitles the first person who has diverted and beneficially used water to the better right; the user with the earliest priority is entitled to receive his full appropriation before those with later priorities.

**Surface Water**
Water flowing on the earth’s surface, including lakes.

**Third Party**
Any person who does not have an interest I or who is not directly impacted. A person without standing.

**Undeclared Basin**
Any area within the county that is located outside a declared underground water basin.

**Wastes**
Sewage, industrial wastes, or any other liquid, gaseous, or solid substance which may contaminate any waters.

**Water Bank**
An entity created by a local water authority which:
1. May buy, lease, or acquire by donation or contract to purchase water, water rights, real estate, or other property.
2. May offer for lease, sell, or contact to sell water, water rights, real estate, or other property.

**Watercourse**
Any river, creek, arroyo, canyon, draw, wash, or any other channel having definite banks and beds with visible evidence of the occasional flow of water.

**Well**
A bored, drilled, or driven shaft, or a dug hole whose depth is greater than the largest surface dimension.
The Catron County Water Plan

Part I
Catron County Water Ordinances
Part I

Catron County Water Ordinances

The following are the ordinances pertaining to the implementation of the Catron County Water Plan:

THE REMAINDER OF THIS PAGE IS LEFT BLANK INTENTIONALLY
A. WATER LAW

A.1 State Law

Water Law in New Mexico is administered at a number of different levels. Local government control dates back to the 16th Century, when community irrigation ditches provided the only sanctioned public means of organizing and distributing surface water. State Law continues to recognize these ditch associations ("Acequias") as political subdivisions of the state, along with more recent entities such as irrigation districts, conservancy districts, soil and water conservation districts, water and sanitary districts, and drainage districts. The statutory powers of these organizations range from the acequias, which are the least powerful, to conservancy districts, which can levy taxes, acquire water rights, determine water uses, and arrange exchange agreements among the four counties and the states of New Mexico and Arizona.

New Mexico municipalities and counties have each been delegated land use planning authority by the state for lands within their jurisdiction; an authority which extends specifically to the reasonable planning and regulation of water within that jurisdiction. Therefore, within the county there exists the possibility of creation of local entities who could regulate water use.

State water rights are themselves always subject to overriding apportionments of water by interstate compact or Supreme Court decree. In addition, direct federal claims to water can supersede state-created rights under certain circumstances.

Two new terms have entered New Mexico water law phraseology in recent years “Public Welfare” and “Conservation” were found by the U.S. Supreme Court to be legitimate criteria in a state’s efforts to control interstate water. Although no one has specifically defined the terms or the factors which go into their determination, they have been widely accepted an incorporated into state water legislation. Depending upon the particular interpretation adopted by New Mexico, the addition of the “public welfare” criteria could offer vast new possibilities for regulation, acquisition, and transfer of water rights by public bodies.

On the other hand, the addition of the term “conservation” to New Mexico water law owed more to the Supreme Court’s language than to any concern for local issues. Conservation is a concept primarily aimed at protecting a limited resource for future use. Without specifically using that term, much of New Mexico’s existing water law is
already directed toward this end. By refusing to recognize “waste” of water as a beneficial use, and by focusing on “consumptive use” of water through “return flow” credits, state law tries to leave no room in its water rights allotments for savings through “conservation.” It is unclear how far local regulation could intrude on the balances already struck by existing water law. For example recent amendments to state law allow municipalities, associations, and conservancy districts to appropriate water for legitimate anticipated needs up to 40 years into the future without fear of losing the right because of failure to put the water to beneficial use. The statute allows these entities to “conserve” sufficient water to cover projected needs for a reasonable time.

The new Mexico Constitution, as interpreted by the Courts and administered by the State Engineer, commits the state to the fundamental law of “Prior Appropriation.” Thus under purely New Mexico law, a water right may be granted for a beneficial use, provided that the new appropriation does not impair any previously existing right. However, that single state law is constrained by superior federal and/or international law. In addition, New Mexico water law differs in important particulars from one local area to another, as well as from one use to another, even within the boundaries of the study basin discussion.

A.2 Federal Law

Of the Federal actions affecting New Mexico water law, several stand out as having major ramifications on the study area. Pre-eminent among these is the 1963 Supreme Court decision of Arizona v. California, which, among other things, apportioned the waters of the Gila-San Francisco stream system. Despite its distant-sounding name, the decision affects the ability of New Mexico water users to deplete the surface flows of the stream system beyond set limits derived from established, defined uses. However, the same complex process which imposed the Arizona v. California limitations also produced the single most obvious source of additional unappropriated water available for fuse in the study area. The 1968 Colorado River Basin Project Act authorized 18,000 acre-feet per year for New Mexico’s future use. Although this water must come from the upper Gila River, it may be used anywhere in the study area, or state for that matter, that users could afford to move it. While there are some limitations, it essentially offers the only opportunity to offset the depletions resulting from Arizona v. California.

Other Supreme Court decision affecting the study area include the 1935 Globe Equity Decree, which affected the Virden Valley and was subsequently incorporated into Arizona v. California; the 1979 United States v. New Mexico, which overruled claims to federal reserved water rights on national lands in the Mimbres Basin, and the 1982 Sporhase v. Nebraska, which brought the aforementioned terms “public welfare” and “conservation” to the forefront.
Besides its role in dispute mediation, the government may also begin to assert a regulatory interest in New Mexico water use, through such mechanisms as the Clean Water Act (affecting surface water return flows from farm irrigation) and the Federal Safe Drinking Water Act (through well head protection amendments which may affect costs and economic pumping depths of municipal wells). Planners should also recognize the alleged federal power to pre-empt state water law in order to provide water for designated federal uses. While the Federal Government has not yet exercised this power, and therefore no court has tested its validity, it could nonetheless reduce the amount of water available under state law.

A/3 International Law

Both Hidalgo and Luna Counties share a common boundary with the State of Chihuahua, Mexico. No physiographic feature divides them, and a single underground aquifer underlies all of them. Therefore, any ground water developed on one side of the boarder necessarily affects the other. While the extent and resultant effects of irrigation on the Mexican side of the border are undetermined at this time, it is apparent that pumping from the Columbus area north of the border has reversed the flow of groundwater across the border, including northward flow into New Mexico.

Although Mexico and the U.S. have no explicit treaty governing use of transboundary groundwater, the growing problem has been under study since 1977. Several draft treaties have been drawn up, proposing mechanisms for conflict resolution rather than specifying methods for apportioning the transboundary aquifers.

As the only alternative, customary or residual international law in the field of water resources (particularly groundwater) is neither advanced nor consolidated. The only adopted agreements are the 1966 “Helsinki Rules On The Uses Of International Rivers” and the 1986 “Seoul Rules On International Groundwaters.” These do little more than entitle each sovereign state to a “fair” share of the waters in question; the definitions of which have again not been spelled out. The result, in essence, is that the Regional Planning District V cannot rely on any definition of, or control over, withdrawals from the Mexican side of the transboundary aquifer. Nor can the counties or state enter into any binding agreements with Mexico, as this power is reserved for the federal government. [An exception to this statement is presented by reverting to Spanish and Mexican Water Law and the recognition that the Treaty of Guadalupe-Hidalgo established the concept of local law, custom and prior appropriation to govern decision.]¹

¹ See Comprehensive Land Plan discussion for legal implications of Spanish and Mexican law, territorial law and Treaty of Guadalupe-Hidalgo.
B. OPPORTUNITIES AND CONSTRAINTS

B.1 Gila/San Francisco Basin

This is the most heavily regulated of the basins in the study area, subject to the decree of Arizona v. California. While that adjudication limits changes in the place of use beyond what the state law might allow, it does not limit changes in purpose of use of water rights. As a result, agricultural rights recognized in the decree may be transferred to other uses, so long as other existing rights are not impaired by the transfer and stream depletions are not increased. The only surface water not yet spoken for within the basin, then, has not yet been developed. It consists of the possible 18,000 acre-feet authorized by the Colorado River Basin/Upper Gila Water Supply Project, embodied in such proposed facilities as the Hooker and Connor Dam sites, and more recently in the Mangas, Schoolhouse, and Venus Project Dam Sites.

While Arizona v. California dealt specifically only with surface water rights, the decree limited the extent to which groundwater use in the Gila/San Francisco basin could deplete the surface water of the stream system. That surface water prohibition limits the nature and extent of development of new groundwater in the basin to those uses which ultimately consume no water, or those in area where groundwater use will not affect surface flows (i.e., an aquifer not hydrologically connected to the stream system). Such new appropriations would be governed exclusively by New Mexico Law.

B.2 Other Basins

The only water outside the Gila/San Francisco and Mimbers Basins available for planning purposes lies in discrete groundwater basins; the remaining ephemeral streams carry no appropriative rights in either Arizona or New Mexico. Some of these aquifers have been “declared” by the State Engineer and therefore fall under his jurisdiction while others still lie outside declared basins.

In most cases, declaration of the remaining basins was due to recognition of the fact that pumping was causing depletion of groundwater to levels of concern. As a result, it is unlikely that new appropriations will be granted within these basins. The only opportunities for new uses would have to come from purchase or condemnation and transfer of existing rights.

In addition to this primary constraint, areas which are “mining” their groundwater may soon be faced with additional obstacles. As water levels decline and pumping depths increase, more and more holders of existing rights will find the cost of pumping to be greater than the economic return from the beneficial use of that water. In some areas of the state, the State Engineer has set a depth to which all rights in the basin will be protected and below which, presumably, only public entities can afford to pump. However, no such formal policy has been set within the study area.
Outside of the declared basins, no permit is required from the State Engineer in order to appropriate groundwater, unless the water is to be exported out of the state. However, water in these undeclared regions is still public water and subject to the general doctrine of prior appropriation. Private parties may obtain rights to it only by applying the water to beneficial use. Public entities, on the other hand, might acquire rights to the water now, yet postpone the application of it to beneficial use by up to the 40-year planning period authorized by the state, provided that a projected need can be demonstrated.
Chapter 2

Water Development Alternatives

A. FUTURE WATER SUPPLIES

A.1 Groundwater

At greater depths, all of the study area basins have additional water. However, in the typical situation, water quality is diminished with depth in an aquifer and extensive treatment, similar to that required for surface water reuse, may be necessary.

Although the Gila and San Francisco basins are administratively considered to be fully appropriated, even those basins may contain extensive groundwater supplies. In order to verify the potential for additional water, new exploration holes, wells and pump tests will have to be performed. With time, as new drilling takes place and the aquifers are better defined, the veracity of this assumption can be determined.

Therefore, the groundwater supply available for the future may be well beyond the expected demands. The only restriction to water use would be the location of demand as compared to convenient and highly productive surface reservoir or well locations. The proposed surface water reservoirs, as discussed in Chapter 7, also could develop large additional water supplies; but even with the capacity to store all excess flood flows, the reservoirs will run dry during the drought periods.

A.2 Surface Water

It appears that there may be additional surface water in the study area basins if only historic deliveries to Arizona are considered. However, if the Spikedace flow requirement, or the more conservative Arizona flow requirement of 200 cfs, is considered, extensive shortages would occur throughout the Gila basin. The only restrictions to appropriation, development and beneficial use of additional water will be avoidance of impairment of existing rights, observance of interstate compact conditions, and protection of historic water quality and environmental values. Also, the U.S. Fish and Wildlife Service will have to approve any proposed plan because of the federally listed threatened species located in the Gila River.
B. EXISTING WATER PROJECTS

B.1 Surface Water Irrigation

Catron County has two ditches along Mineral Creek which serve 147 acres. The San Francisco River supplies eight ditches for a total of 897 acres. Tularosa Creek supplies three ditches which serve 62 acres and Whitewater Creek supplies three ditches for a total of 185 acres.

B.2 Existing Surface Water Storage Sites

Table 2-1 lists existing ponds, lakes, and reservoirs in the study area; these area also shown in Figure 4-6. The storage capacities range from 4,000 acre-feet for Quemado Lake in the Little Colorado river basin, to 120 acre-feet for Bear Canyon Reservoir in the upper Mimbres River basin. Recreation is the main purpose and use of water stored in the existing ponds, lakes, and reservoirs.

B.3 Use of Wells & Locations

The use and number of wells in Catron County is mostly for stock and domestic uses as shown in Figure 4-9 (which is not a comprehensive listing for all wells in the county). Irrigation, public, commercial, and other uses comprise the remaining wells (USGS, 1989) which include many unused wells. These wells are distributed throughout the county. The number of wells show in Figure 4-8 and 4-9 represent only the number measured by the USGS and not the total number of wells in the county. It is assumed that the proportional distribution of wells is the same for all wells in the county.

C. NEW PROJECTS

New projects which were considered in this study and proposed by others include: Upper Frisco Watershed project Site 2 (U.S. Soil Conservation Service) and other sites being investigated by the Catron County recreational water development committee. These proposed dams and other proposed smaller watershed projects are shown on Figure 4-6.

C.1 Project Development

In order to develop these projects, the following items must also be addressed:

- Establish an appropriate entity with taxing or fiscal authority acceptable to USBR.
- Negotiate the CAP water exchange with an appropriate Arizona user. This may involve a less than 1:1 exchange because of water quality differences, evaporation
### Table 2-1. Lake & Reservoir Evaporation Demands

<table>
<thead>
<tr>
<th>Lake or Reservoir Name/node</th>
<th>Maximum Surface Area (acres)¹</th>
<th>Maximum Capacity (ac-ft)²</th>
<th>Annual Free Water Surface Evaporation (in)³</th>
<th>Annual Maximum Evaporation Volume (ac-ft)⁴</th>
<th>Modeled as Evaporation (E) Only or as Reservoir (R) or Not modeled (N)</th>
<th>Existing Or Proposed Lake or Reservoir</th>
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</thead>
<tbody>
<tr>
<td><strong>Little Colorado Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quemado/2</td>
<td>187</td>
<td>2,400</td>
<td>45</td>
<td>701</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Sweazeea/1</td>
<td>55</td>
<td>-----</td>
<td>45</td>
<td>19</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Salt Lake/2</td>
<td>195²</td>
<td>-----</td>
<td>48</td>
<td>780</td>
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</tr>
<tr>
<td>Agua Fria/2</td>
<td>291²</td>
<td>-----</td>
<td>47</td>
<td>1,140</td>
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<td>E</td>
</tr>
<tr>
<td>Blaines Lake/2</td>
<td>116²</td>
<td>-----</td>
<td>45</td>
<td>435</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td><strong>San Francisco River Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toriette lakes/8</td>
<td>62²</td>
<td>-----</td>
<td>44.50</td>
<td>230</td>
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<td>E</td>
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<tr>
<td>Glenwood Ponds/9</td>
<td>1</td>
<td>-----</td>
<td>45</td>
<td>4</td>
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<td>E</td>
</tr>
<tr>
<td>Rancho Grande Ponds/4</td>
<td>2</td>
<td>-----</td>
<td>44.50</td>
<td>8</td>
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<td>E</td>
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<tr>
<td>Upper Frisco Watershed Project Site 5/6</td>
<td>36</td>
<td>696</td>
<td>43</td>
<td>129</td>
<td>E</td>
<td>P</td>
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<td>Upper Frisco Watershed Project Site 2/4</td>
<td>666</td>
<td>34,000</td>
<td>44</td>
<td>2,442</td>
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<td>P</td>
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<tr>
<td><strong>Gila River Basin</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snow Lake/6</td>
<td>100</td>
<td>4,000</td>
<td>44.80</td>
<td>374</td>
<td>E</td>
<td>E²</td>
</tr>
<tr>
<td>Wall Lake/6</td>
<td>73²</td>
<td>6</td>
<td>47</td>
<td>286</td>
<td>E</td>
<td>E²</td>
</tr>
</tbody>
</table>

1. Source: NM Fishing Waters Map, NM Dept. of Game & Fish, SEO-Area Capacity Curves or EID-NM Clean Lakes Program, USDA-Forest Service.
2. See Area-elevation-capacity curves for capacity.
3. From figure 3-6.
4. b/12 x a
5. Local residents indicate that actual size is greater than this amount.
7. Local residents indicate that actual size is less than this amount.

and other losses in the New Mexico system.

- Negotiate with downstream water users and demonstrate “no economic injury or cost” to them.
- Identify the CAP repayment obligation for capital and OM&R costs.
- Involve the general public and interested or affected groups, including downstream water users, environmentalists, and other federal and state agencies.

### C.2 Reserve & Alternate Dam Sites

As described by the USBR (1985), the proposed Reserve Dam would be located on the San Francisco River, about two miles northwest of the town or Reserve. It would consist
of an earthfill structure with a concrete lined spillway and would inundate a relatively narrow canyon. Some riparian habitat would be inundated, as would several intermittent board meadows currently used for grazing. According to the USBR, the reservoir would cause fewer aquatic impacts than any of the other sites which it has investigated, due to the present intermittent nature of the river. The dam may provide some limited flood protection from the Reserve area. However, all dams considered for mainstream storage sites have been eliminated as being too costly and pose too many environmental obstacles.

The USBR (1985) was considering a 34,000 ac-ft yield and a surface area of 5,977 acres. The SCS (1964) had evaluated a smaller (12,468 ac-ft capacity) reservoir. Catron County interests and the U.S. Forest Service have considered an even smaller reservoir in the same general area, although no specific site has been selected at present. More detailed studies are necessary before the final configuration and uses of this dam can be defined.

**C.3 Groundwater Projects**

The modeling results indicate that, in some areas, the water table may drop to significant depths in 40 years (year 2030). The water table draw-down could be mitigated by reducing the well field density for future wells, causing less draw-down at a given well.

This second possible solution to eliminate the groundwater draw-down and associated pumping costs would be a water supply from a surface reservoir.

In addition, a reservoir could provide low flow augmentation to protect downstream endangered fish species and perhaps increase the low-flow availability to downstream (including Arizona) water users.

**C.4 Cost Estimates**

Cost estimates for the previously proposed (by others) dams are summarized in Table 2-2 along with other information such as cost per acre-foot. The cost estimates for the previously proposed (by others) dams were adjusted for inflation from the data at the time of estimate to 1990, assuming a 3% increase per year.

The 1990 cost for the Reserve Dam (Upper Frisco Watershed Project Site 2) is $31,518,000 which was adjusted based on the cost presented in the “Upper Gila Water supply Study, U.S. Bureau of Reclamation, 1985.”

**C.5 Administrative & Financing Issues**

The agency or company or individual who administers the water use is generally also responsible for financing any water development projects. The various types of organizational structures available to residents of the study area, as well as the rest of
New Mexico, have previously been described in Chapter 1. This section describes additional public organizations that can be empowered to conduct certain fiscal responsibilities. Obviously, private firms and individuals have the full flexibility to form any type of legal organizational and fiscal unit to own, develop and operated water storage and distribution systems.

**Table 2-2 Estimated Construction Cost for Proposed Reserve Dam**  
(Upper Frisco Watershed Project Site 2—Earth Dam Construction)

<table>
<thead>
<tr>
<th>Year of Estimate</th>
<th>Estimated Construction Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>$27,200,000¹</td>
</tr>
<tr>
<td>Maximum Capacity</td>
<td>34,000¹</td>
</tr>
<tr>
<td>Cost Per Acre-Foot</td>
<td>$8000</td>
</tr>
<tr>
<td>1990 Cost Per Acre Foot ($/ac-ft)</td>
<td>$927</td>
</tr>
<tr>
<td>Required Capacity for future Demands</td>
<td>0</td>
</tr>
<tr>
<td>1990 Cost for Required Capacity</td>
<td>$31,518,000</td>
</tr>
</tbody>
</table>


\[
\begin{align*}
\text{c} &= b(1+.03) \text{ No. of years from estimated to 1990} \\
\text{d} &= \text{based on maximum volume withdrawn from reservoir determined from future (year 2030) conditions reservoir modeling results.} \\
\text{e} &= \text{c x maximum capacity.}
\end{align*}
\]

**C.6 Alternative Financing Methods**

By their very nature, water projects are essential to development and operation of residential, municipal, agricultural, and industrial activities. Because large amounts of capital are required to construct water projects, various alternate methods of financing are required. Some of these methods are as follows:

1. Debt financing using either general obligation (good credit, low interest rate) or revenue (more risk, higher interest rate) bonds.

2. Economic Development funds grants and loans available from the state as general obligation bonds or revenue bonds using the loan payments as the revenue source. Or the legislature could appropriate the money from the general fund; tax surpluses; sales, gross receipts, or user taxes; or severance taxes. Alternatively the state could use these funds to buy local government bonds for a specific project. Another alternative is for the state to use these funds to construct the project and then sell or lease it to the local government over a time period long enough to make it affordable to the local government.

3. The state can establish bond banks to buy local bond issues which would otherwise be economically inefficient because of their size.
4. The state legislature can provide for a state or local authority to issue its own bonds, make loans or grants or even build projects. Also, local agencies could join together to form a limited power quasi-government agency which can also issue its own debt instructions.

5. Yet another option for funding water projects is a stat bond guarantee fund which would approve all local bond issues and guarantee their repayment.

Obviously, many of these organizational and funding sources are already available to the southwest New Mexico area. When a specific project is selected for development, the appropriate organization should then be identified.

Multi-source funding of water projects is a very popular means of project financing. Innovative methods of combining federal, state, and local funds within the fiscal capability of each agency should always be investigated when individual projects are being planned.

D. ENVIRONMENTAL CONCERNS

D.1 Riparian & Wildlife

Although not strictly regulated by the State Engineer Office, fish, wildlife, and riparian requirements are a major concern of federal agencies, including the U.S. Bureau of Reclamation. In particular, the in-stream flow/fish requirements (Spikedace and Loach minnow), which were specified by the U.S. Fish and Wildlife Service, appear to be greater than the historic flow of the river. Consequently, even the existing uses may have to be curtailed, if the specified requirements are to be met.

D.2 Reservoir Mitigation

Obviously, an upstream reservoir which stores flood flows and augments low flows to meet downstream flow requirements is a desirable objective on both the Gila and San Francisco Rivers. The reservoir storage dedicated to low flow augmentation, however, should not be provided at New Mexico’s expense; neither should the capital cost to allow this storage. Additional storage could also be provided for downstream, including Arizona users who would otherwise experience shortages in drought years. Again, New Mexico should not have to pay for this. And, always in the background, is the need to complete the CAP exchange for the New Mexico water and who will pay for the exchange. Therefore, allocating costs for a multipurpose reservoir will be extremely complex and will require much negotiation.

In spite of all these problems, the environmental concerns are important and federally mandated. Therefore, they cannot and should not be minimized to any extent.
Benefits derived, not only to individual fish species, but to the fluvial and riparian ecosystems, will far exceed the costs. In this context, it is important to recognize that periodic flooding of riparian areas is part of the natural order and the respective ecosystems have adapted to and rely on these inundations, e.g., cottonwood regenerations. Therefore, any reservoir project should not eliminate all downstream flooding because, under those conditions, the riparian ecosystem may suffer. Also, periodic scour of benthic deposits may be necessary for the wellbeing of the fluvial ecosystem.

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Chapter 3

Study Area Description

The study area comprises 4,414,720 acres in Catron County. Figure 3-1 shows the study area and its major geographic features.

A. LAND FORM & GEOLOGY

The geologic features which have evolved within the study area over time can be classified by distinct patterns of land forms, known as physiographic provinces. The northern edge of Catron County lies within the Colorado Plateau Province, characterized by scarped tablelands with broad valleys and local canyons.

The remainder of Catron County lies within the Datil-Mogollon section, a transitional area between the Colorado plateau and the basin and range landscape to the south and east. It is characterized by widespread volcanic flows, high tablelands and scattered fault block ranges. Elevations reach nearly 10,900 feet in the Gila Wilderness area, which sits astride the Catron/Grant county line. The San Agustin plains, in the eastern part of Catron County, lie within a closed basin which formed under large Pleistocene lakes.

The major surface water basin, as designated by the U.S. Geological Survey, which serves to drain the study area is the lower Colorado River Basin, shown in Figure 3-3. Additionally, portions of the two western closed basins and the Rio Grande Basin lie within the eastern part of Catron County. Appendix A of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) contains geologic description of the major basin as well as the western closed basins.

Sub-basins within the lower Colorado River Basin include the Little Colorado River, San Francisco River, Gila River, and San Simon Creek Basins. The San Francisco, with headwaters in Arizona, is perennial throughout much of its course in New Mexico; localized exceptions include areas of thick gravel fill where the stream disappears temporarily.

Drainage within the closed basins generally does not follow distinct channels; rather, run-off tends to spread across lowlands as sheet flow, terminating in shallow playa lakes.
B. SOILS AND VEGETATION

The U.S.D.A. Soil Conservation Service has published soil surveys for the study area. For the purpose of this plan, the soil types described in the SCS surveys have been grouped into four major categories, as shown in Figure 3-4. As can be seen from the descriptions in the map legend, soils within a given category are due to differences in underlying geologic materials from which the soils are formed, as well as localized weathering and biological factors.

Soil cover on mountain slopes is generally not more than a few inches deep where woodland cover is absent. While in forested areas it is usually thick with a much higher humus content. Soils in the closed drainage basins, where run-off from higher elevations collects, tend to be low in humus, high in soluble minerals, and are often alkaline.

Soils in the broader reaches of the Gila and the San Francisco River valley are mostly sandy to silty, well drained, and suited to agriculture. Soils in the drainages farther north tend to have a higher clay content, derived from shale parent material. They are usually much heavier than the soils of surrounding hills and mountains.

Plant communities play an important role in any soils discussion, being both dependent upon and, to a somewhat lesser degree, responsible for soil types in a given area. Vegetation is also very dependent upon geographic location, as is shown in Figure 3-5. The study area is influenced by two of the major biogeographic provinces of the southwest (Brown, 1982): The Great Basin From The North, And The Chihuahuan Desert In The South.

Within the lower Colorado River Basin, the valley floor and adjacent slopes are mainly grassland and low brush, commonly dotted with pinon and oak on the intermediate slopes. Oak generally gives way to a greater prevalence of juniper in the more northerly latitudes. Ponderosa pine is common between 6,000 and 8,000 feet, with spruce, fir, and aspen found at altitudes above 8,000 feet. The initiation of fire suppression in the early 1900’s has resulted in the pinon/juniper invasion of grasslands and increased ponderosa and mixed-conifer stand densities. In turn, this has reduced water delivery from the watershed. It has also contributed to increased erosion of soils and turbidity of surface flows.

Lower elevations in the southwestern closed basins are also dominated by grass and brushlands, with the exception of the relatively barren playas and salt flats. Vertical progressions in these basins are similar to those of the lower Colorado Basin.

Riparian communities, represented by such species as cotton wood and invading salt cedar, are found along many of the lower perennial streams throughout the study area.
C. CLIMATE

Within an area of this size, as might be expected, climate is nearly as varied as the terrain. The only unifying climatic variable is aridity; throughout the study area evaporation potential exceeds the amount of precipitation typically received, as shown in Figure 3-6.

Due to the relatively limited number of weather stations which have continuous data available, it is difficult to make generalizations regarding climatic factors on a study area-wide basis. Average monthly temperature and rainfall for selected weather stations within the study are given in Table 3-1. The average number of frost-free days throughout the study area is shown in Figure 3-7.

### Table 3-1 Mean Temperature & Precipitation in the Lower Colorado River Basin in Catron County

<table>
<thead>
<tr>
<th>Station</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
</tr>
<tr>
<td>Quemado</td>
<td>29.4</td>
<td>.66</td>
<td>33.1</td>
<td>.57</td>
</tr>
<tr>
<td>Glenwood</td>
<td>40.2</td>
<td>1.24</td>
<td>43.8</td>
<td>.85</td>
</tr>
<tr>
<td>Beaverhead</td>
<td>30.0</td>
<td>.88</td>
<td>33.2</td>
<td>.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
</tr>
<tr>
<td>Quemado</td>
<td>53.4</td>
<td>.52</td>
<td>62.7</td>
<td>.61</td>
</tr>
<tr>
<td>Glenwood</td>
<td>62.8</td>
<td>.37</td>
<td>71.8</td>
<td>.71</td>
</tr>
<tr>
<td>Beaverhead</td>
<td>52.8</td>
<td>.39</td>
<td>62.0</td>
<td>.59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
<td>Temp °F</td>
<td>Prec. (in.)</td>
</tr>
<tr>
<td>Quemado</td>
<td>60.1</td>
<td>1.20</td>
<td>50.0</td>
<td>.62</td>
</tr>
<tr>
<td>Glenwood</td>
<td>69.2</td>
<td>1.64</td>
<td>59.2</td>
<td>1.26</td>
</tr>
<tr>
<td>Beaverhead</td>
<td>57.4</td>
<td>1.45</td>
<td>48.1</td>
<td>1.37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temp °F</td>
</tr>
<tr>
<td>Quemado</td>
<td>47.8</td>
</tr>
<tr>
<td>Glenwood</td>
<td>57.7</td>
</tr>
<tr>
<td>Beaverhead</td>
<td>47.2</td>
</tr>
</tbody>
</table>

The mean annual precipitation in the lower elevations is generally between 8 to 12 inches. The mean annual precipitation in the mid range elevations between the flatlands and upper mountain areas ranges from about 12 to 16 inches and the mountain areas within the Mimbres, Gila, and San Francisco River Basins ranges from about 16 to 30
inches with the average between 16 and 20 inches. Figure 3-6 shows the mean annual precipitation isohyets for the study area.

Figure 3-8 shows the monthly distribution of rainfall for six weather stations in Catron County. The distribution of the mean annual precipitation is generally the same for all stations; forty-four percent occurs in summer (June 1st to August 31st), twenty-six percent occurs in the fall (September 1st to November 30th), twenty percent occurs in the winter (December 1st to February 29th). Summer and fall rainfall, very often from brief intensive thunderstorms, accounts for the largest percentage of annual rainfall.

Snow falls between October and into May in the mountain areas with most snowfall occurring between December and February, although March also has considerable snowfall. The mean annual snowfall ranges from about 0.3 inches in the lower elevations to 36.4 inches at higher elevations.

D. LAND USE

Archaeological sites have been discovered within the study area that indicate Paleo-Indians were probably the first inhabitants of the region, some 10,000 years ago. The most visible evidence of early settlement can be found at Gila Cliff Dwellings National Monument, in southern Catron County. Here pit houses possibly dating to 100 A.D., indicate the presence of the Mogollon culture, which replaced the earlier archaic groups about 50 B.C. Sometime after 1000 A.D. the Cliff Dwellings themselves were built, along with other Pueblos overlooking the west fork of the Gila River. Tree ring dating the roof timbers indicates that construction continued in the area until about 1280 A.D. The main subsistence activities were farming, pottery, and trade.

The first European contacts in the area likely came following Coronado’s Expedition in 1540, although no settlements occurred until much later. Apaches moved into the area sometime during the 1600’s; early Spanish maps identify southwest New Mexico as “Apacheria”. In 1800, an Apache Chief showed traces of copper ore near present-day Santa Rita to a Spanish explorer and the mining legacy was begun. For a number of years, copper was shipped back to Mexico at an average rate of 4 million pounds per year.

In 1822 the area came under control of the Mexican Government, but soon experienced an influx of trappers and mountain men from the United States. By 1848, the Treaty of Guadalupe-hidalgo had ceded much of the area to the U.S.; the remainder was acquired in 1853 as part of the Gadsden Purchase. The war with Mexico brought military excursions throughout southern New Mexico as early as 1847. Diaries kept by the military and information accumulated by public land surveyors in the years following added much to the recorded information about the study area during that early period.
The discovery of gold in the Mogollon Mountains near Glenwood in 1875 brought additional settlers, many of whom turned to farming and ranching. The extension of railroads into the area in the 1880’s, along with the end of Indian hostilities, marked the beginning of relative stability; most forms of economic and social structure in place at that time remain today.

Irrigated agriculture by non-Indians came into widespread use in the mid-1800’s. An irrigation canal was completed at San Lorenzo in eastern Grant County in 1869, and by 1875 a number of ditch systems had been established on the Gila River. By 1890, most land suitable for irrigation with surface water was under cultivation. Most of the diverted water was used to irrigate small farms, although part of the water was appropriated by owners of large ranches for livestock purposes. As the only feasible occupation on land away from the main stem of the rivers, ranching spread throughout the remainder of the area, and by the late 1800’s some of the larger ranches in New Mexico had been established.

After 1940, irrigation using groundwater began in both New Mexico and Arizona. Far development in New Mexico picked up substantially in the 1950’s, with the realization that soils and climatic conditions enabled successful cash crop production, once water became available. This resulted in the creation of many farming enterprises where only livestock grazing was feasible prior to 1940.

Access to the headwater areas of stream systems such as the Gila has always been difficult. Since terrain and climate typically do not favor farming or ranching, much of these areas remain primitive and undeveloped. In 1964 the government acknowledged these unique characteristics with the creation of the 438,360-acre Gila Wilderness, within the Gila National Forest. The National Forest continues to be harvested for timber, as it and surrounding forests have been since the early mining days. It remains a popular destination for outdoor recreation.

Current land use within the study area is shown in Figure 3-10. Land use categories have been generalized for graphic representation, in order to show overall relationships. Acreages for each land use category are show by county in Table 3-2, and by drainage basin in Table 3-3. Historic changes in land use are discussed in the following subsection; however it is difficult to determine the cause of land use changes. The reasons are probably both economic and lack of water resources in some locations.

E. ECONOMIC DEVELOPMENT

Catron County is New Mexico’s largest and most sparsely settled county, with more than half of its land area set aside in three National Forests: the Gila, Cibola, and Apache. Catron County’s economy is based on cattle ranching, lumber, tourism, and recreation. Throughout the 1980’s, Catron County has been characterized by low per-capita income, high poverty, and double digit unemployment rates as shown in Table 3-4.
Total non-agricultural employment increased just 36 percent between 1960 and 1988, from 381 to 580, due primarily to government employment growth during the 1970’s. This compares unfavorably to New Mexico’s 129 percent job growth during the same time frame. The government sector, which nearly doubled its employment between 1960 and 1988, and agriculture, which has experienced a modest decline since 1970, are the county’s two largest employment sectors. Sawmills and logging, which have been on a downward trend, also provided some limited manufacturing activity, although this

**Table 3-2. Land Use in Catron County**

<table>
<thead>
<tr>
<th>Land use</th>
<th>No. of Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area in County¹</td>
<td>4,414,720</td>
</tr>
<tr>
<td>Irrigated Acreage²</td>
<td>1,355</td>
</tr>
<tr>
<td>Idle or Fallow Acreage²</td>
<td>1,265</td>
</tr>
<tr>
<td>Total Farmland²</td>
<td>2,620</td>
</tr>
<tr>
<td>Grazing:</td>
<td></td>
</tr>
<tr>
<td>Rangeland³</td>
<td>815,817</td>
</tr>
<tr>
<td>Woodland³</td>
<td>2,016,200</td>
</tr>
<tr>
<td>Recreation, Fish, &amp; Wildlife:</td>
<td></td>
</tr>
<tr>
<td>Wilderness¹</td>
<td>346,000</td>
</tr>
<tr>
<td>Parks, monuments, preserves³</td>
<td>2,570</td>
</tr>
<tr>
<td>Timber³</td>
<td>1,231,513</td>
</tr>
</tbody>
</table>

¹ Williams, 1896.
³ N.M. State Engineers Office & N.M. Interstate Stream Commission, 1968.

**Table 3-3. Land Use by Drainage Basin in Catron County**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>No. of Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Little Colorado River</td>
</tr>
<tr>
<td>Total Area of Basin within NM¹</td>
<td>3,408,000</td>
</tr>
<tr>
<td>Area of Basin in Study¹</td>
<td>1,157,760</td>
</tr>
<tr>
<td>Irrigated Acreage²</td>
<td>167</td>
</tr>
<tr>
<td>Idle or Fallow Acreage²</td>
<td>123</td>
</tr>
<tr>
<td>Total Farmland²</td>
<td>290</td>
</tr>
<tr>
<td>Grazing:</td>
<td></td>
</tr>
<tr>
<td>Rangeland³</td>
<td>304,000</td>
</tr>
<tr>
<td>Woodland³</td>
<td>707,801</td>
</tr>
<tr>
<td>Recreation, Fish, &amp; Wildlife:</td>
<td></td>
</tr>
<tr>
<td>Wilderness¹</td>
<td>0</td>
</tr>
<tr>
<td>Parks, Monuments, Preserves³</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Tysseling, Boldt, and McDonald, October, 1986.
³ N.M. State Engineers Office & N.M. Interstate Stream Commission, 1968.
⁴ Williams, 1896.
⁵ N.M. Interstate Stream Commission.
⁶ The report (c.) apparently classified the graying woodland area of Gila National Forest as timber.
Industry is threatened by environmental concerns relating to the Mexican Spotted Owl and the Goshawk.

Livestock production accounts for most of the county’s agricultural activity, though a small amount of food crops are grown. The San Francisco River Valley between Aragon and Glenwood is the primary agricultural region. From 1960 to 1988, irrigated cropland dipped from about 2,800 acres to about 2,600 in contrast to an overall increase of 40 percent for the state. The price/CWT of New Mexico cattle dropped from $69.20 to $48.50 between 1979 and 1986, but had rebounded to $62.30 as of 1988. As a result, livestock receipts have fallen markedly, from roughly $20 million to $11.5 million in 1983, then recovering to $19 million by 1988. Agricultural employment has declined steadily, falling from 365 to 322 jobs between 1970 and 1987.

The statements in this section reflect the factual conditions that Catron County’s economy is industry dependent (logging, agriculture, and mining). Inhabitants choose to live here because of the quality of life we enjoy. One of the understood sacrifices is living below the “national poverty line” income levels. Hard statistics regularly fail to depict the actual living conditions in an area. In reality, area residents enjoy a high standard of living. While rural in nature, the county has a cosmopolitan air. There is a high percentage of individuals with advanced degrees in many fields and extensive world travel experience. It is not uncommon to find sophisticated computer and communication equipment nestled in 100 year old adobe and log cabin homes. Communities have a strong volunteer ethic and often accomplish extraordinary projects without the need for high dollar investments.

The communities are actively pursuing economic diversification as an ongoing lifestyle. It is a requirement of living here to be versatile and adaptive to change. This diversification complements an ongoing invitation to small business and industry owners to consider the county as a location for their enterprises.
Chapter 3
Water Plan

Study Area Description

DRAINAGE BASINS OF NEW MEXICO

ARMS RIVER BASIN
1. CANADIAN RIVER 12.85
2. PURGADOIRE RIVER 1.32
3. DRY CIMARRON RIVER 1.00
4. NORTH CANADIAN RIVER 2.36
5. CARRIZO CREEK 2.30
TOTAL 16.35

SOUTHERN HIGH PLAINS
1. RED RIVER 6.78
2. BRAZOS RIVER 2.72
3. LEA PLATEAU 2.85
TOTAL 6.37

PECOS RIVER BASIN
1. PECOS RIVER 1.25
TOTAL 1.25

BASIN
AREA IN SQ. MILES
ARKANSAS RIVER BASIN 12.85

CENTRAL CLOSED BASINS
1. ESTANCA BASIN 2.23
2. JORNADO DEL MUERTO 3.45
3. JUAROSA BASIN 6.75
4. SALT BASIN 14.75
TOTAL 28.65

RIO GRANDE BASIN
1. RIO GRANDE 25.73
2. COSTILLA CREEK 3.78
3. RIO SAN ANTONIO 2.97
TOTAL 29.08

WESTERN CLOSED BASINS
1. NORTH PLAINS 6.97
2. SAN AGUSTIN PLAINS 3.88
TOTAL 10.85

RIO YAda BASIN
TOTAL 2.50

STATE TOTAL 121.06
LEGEND

- No Soil Information Available
- Deep, fine textured, level soils on alluvial fans, flood plains, and basin floors.
- Shallow to deep, sloping soils on alluvial fans, terraces, and hills.
- Shallow to deep, medium and coarse textured soils on hills, ridges, and uplands.
- Shallow, medium to coarse textured, sloping to very steep soils and rock outcrop on hills and mountains.

REGIONAL WATER PLAN
CATRON, GRANT, Hidalgo, AND LUNA COUNTIES, NM
GENERALIZED SOILS MAP
SOUTHWEST NEW MEXICO PLANNING DISTRICT V
FILE NAME: R5MAP
FIGURE 3.4
Chapter 3
Water Plan

Study Area Description

LEGEND
1. Chihuahuan Shrub
2. Chihuahuan Grassland
3. Great Basin Grassland
4. Plains Grassland
5. Riparian
6. Montane Shrub
7. Conifer Woodland
8. Mixed Conifer

REGIONAL WATER PLAN
CATRON, GRANT, MORA, AND LUNA COUNTIES, NM

NATURAL VEGETATION
SOUTHWEST NEW MEXICO PLANNING DISTRICT V

FILE NAME: SWNEG5
FIGURE 3.5

1990
LEGEND

- **ANNUAL PRECIPITATION**
  Isoline Interval = in inches, as Labeled

- **ANNUAL FREE WATER SURFACE EVAPORATION**
  Isoline Interval = 5 inches

**REPORTING WEATHER STATIONS**

+ Evapotranspiration Data
+ Pan Evaporation Data
+ Precipitation / Temperature Data

REGIONAL WATER PLAN
CATRON, GRANT, Hidalgo, and Luna Counties, NM

PRECIPITATION/EVAPORATION
SOUTHWEST NEW MEXICO PLANNING DISTRICT V

FILE NAME: PRECIP49
1990 FIGURE 3.6
Figure 3.8

Mean Monthly Precipitation, Catron County, New Mexico

- Adobe Ranch: 12.08 in
- Beaverhead R.R. Sta.: 13.61 in
- Hickman: 12.26 in
- Luna R.R. Sta.: 15.00 in
- Reserve R.R. Sta.: 10.86 in
- Reserve R.R. Sta.: 14.92 in

Mean Precip. in Inches

JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC

Station Location

- Adobe Ranch
- Beaverhead R.R. Sta.
- Hickman
- Luna R.R. Sta.
- Reserve R.R. Sta.

Mean Annual (Inches)
Chapter 4

Existing Water Resources

A. HYDROLOGIC CHARACTERISTICS

A.1 General

Catron County is typical of the arid southwestern United States with large diurnal temperature fluctuations, low mean annual precipitation, minor snowfall amounts, and very intensive summer thunderstorms. The mean annual precipitation for the county ranges from 10.60 inches at Quemado to 30 inches at higher elevations.

The majority of surface water resources lie within the San Francisco River Basin. Flows are characterized by short duration high flows and prolonged periods of low flows. In some reaches the river bed can dry up for short periods in the summer.

The major water use is irrigated agriculture which uses most of the flow as soon as it becomes available from snow-melt or summer thunderstorms.

At present, the flow of the San Francisco River is fully appropriated because this basin has been “declared” by the New Mexico State Engineer Office and no additional uses are permitted. The primary users of the existing water supplies, as shown on Figure 4-1, are irrigated agriculture, various mining operations and scattered small communities throughout the basin but generally along the stream channels.

Surface water gauging data for the study area was obtained from the U.S. Geological Survey. The other basins in the study area, generally, have ephemeral (only part of the year) surface flow.

As described by the U.S. Bureau of Reclamation (1985): “Floods occur in many areas of the upper Gila basin. Major floods have occurred in this century in 1905, 1906, 1914, 1916, 1932, 1941, 1949, 1965, 1967, and in the past 12 years, four times again. The 1972 flood saw the Gila River in the Safford Valley reach a peak flow of 82,000 cubic feet per second. Damages to urban areas were extensive in Duncan and Clifton, Arizona; and Little Hollywood, Arizona was destroyed. Agricultural damages were especially severe since the floods came just before cotton harvest.”

The 1978 floods were even worse than those in 1972. Peak flows in Safford Valley were about 100,000 cubic feet per second. Major damages were reported by virtually every community along the Gila and San Francisco Rivers. The largest floods on record for many parts of the basin occurred in October 1983. Flows in the Safford Valley peaked at a record 132,000 cubic feet per second.
Primary aquifers in Catron County generally are made up of sand and gravel of Quaternary age. Other aquifers in this area are made up of sandstone of Tertiary age and limestone of Pennsylvanian age.

Groundwater is the main source of domestic, municipal, and industrial water in the study area. However, all along the San Francisco River there is a complex relationship between surface flows in the flood plain alluvium and the groundwater aquifer. The flood plain alluvium, which consists of very pervious sands and gravels of Quaternary age has excellent hydraulic conductivity with surface flows in the river, thus allowing quick recharge when the aquifer is pumped intensively.

Aquifers in this region mainly occur in two types of basins: The alluvial-fill basin and the bolson-fill basin. The alluvial-fill basin is a narrow, usually elongate basin into which local uplifted material is shed, thus creating a reservoir for water. The San Francisco River basin is an example of an alluvial-fill basin. The bolson-fill basin is a broad, flat alluvium-floored depression into which drainage from the surrounding mountains flows towards the center of the basin. The San Agustin basin is an example of a bolson-fill basin.

Figure 4-5 shows the major drainage basins within the study area. Table 4-1 shows the distribution of these basins within the county, geographical source areas for inflows and outflows, if the basin is a tributary or closed basin, type of main water supply (surface or groundwater or both) and drainage areas within the study area. Figure 4-5 also shows the groundwater basins as designated by the New Mexico State Engineer Office.

<table>
<thead>
<tr>
<th>Drainage Basin</th>
<th>Little Colorado River</th>
<th>North Plains</th>
<th>Rio Grande</th>
<th>Rio Grande</th>
<th>San Agustin Plains</th>
<th>San Francisco River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflow from:</td>
<td>Cibola Co.</td>
<td>------------</td>
<td>----------</td>
<td>---------</td>
<td>Socorro Co.</td>
<td>Arizona</td>
</tr>
<tr>
<td>Outflow to:</td>
<td>Arizona</td>
<td>Cibola Co.</td>
<td>Socorro Co.</td>
<td>Socorro Co.</td>
<td>Sierra Co.</td>
<td>Arizona</td>
</tr>
<tr>
<td>Tributary (T) or Closed (C) Basin</td>
<td>T</td>
<td>C</td>
<td>T</td>
<td>T</td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td>Main Water Supply: Surface (S) and/or Ground (G)</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>S</td>
<td>G</td>
<td>S/G</td>
</tr>
<tr>
<td>Drainage Area in Study Area (sq.mi.)</td>
<td>1,809</td>
<td>322</td>
<td>320</td>
<td>84</td>
<td>1,333</td>
<td>1,836</td>
</tr>
</tbody>
</table>

The existing surface drainage watersheds and existing and proposed reservoirs are shown on Figure 4-6 along with the major rivers and tributaries.

A water-level elevation contour map was constructed for the study area based upon data collected by the USGS (Figure 4-7). Water-level elevations for Catron County range from 5,000 to 8,000 feet.
A.2 Development History of Groundwater Aquifers

The New Mexico State Engineer has declared two groundwater basins in the study area as of June 30, 1989 as shown in Figure 4-5. These groundwater basins are the Gila-San Francisco and approximately the western fifth of the Rio Grande.

The New Mexico State Engineer Office can declare a groundwater basin when the basins have reasonably ascertainable boundaries. Jurisdiction over the appropriation and use of water from each declared basin can be supervised by an appointed water master.

The number of wells catalogued by the USGS in Catron County is summarized by bar charts and location maps for source aquifers (Figure 4/8) and use of wells (Figure 4-9). These figures are based upon data collected from 1940 to 1989 by the USGS and show that most of the observed wells in the study area are located within aquifers of alluvial-fill basins. It is very important to note that Figure 4-8 and 4-9 are only those wells monitored by the USGS; there are many more wells in the county. This information is used to show generalized sources and trends only, and not to compute water demand volumes. Actual water usage data and water rights were used to estimate water demands.

A.3 Groundwater Storage Capacity Curves

Idealized storage capacity curves for the Lordsburg basin and Gila basin are plotted on figure 4-10 as examples. These curves show changes in groundwater storage volume versus water level elevation in feet above an assumed zero elevation in the aquifer, for pumping periods of one month and 40 years, from a one-mile diameter well field. For each basin and for both pumping periods, capacity curves were plotted for two cases. The first case (without recharge) assumes water is derived solely from aquifer storage. The second case (with recharge) assumes aquifer storage is replenished from surface sources. Local storage capacity curves need to be developed for each sub-basin.

The volume of divertible water available from the aquifer can be estimated from these curves. For example, on figure 4-10, for the Lordsburg basin, assuming no recharge and a 40 year pumping schedule at 161,500 acre-feet/year, the volume of divertible water available from groundwater storage is approximately 3.85 million acre-feet for a water level elevation 600 feet above the assumed aquifer bottom. Under these same conditions, the volume of divertible water available from groundwater storage, assuming recharge from surface sources, is approximately 2.75 million acre-feet. The difference between the values is equivalent to the amount of water in storage derived from the surface sources which recharge the aquifer.

Figure 4-11 shows the percent of groundwater withdrawal that is derived from surface sources as a function of time for the specified pumping conditions. As can be seen, the
Gila and playas basins will have the most immediate impacts on surface sources.

The Gila basin storage capacity curves assume groundwater is extracted from a pumping center one-half mile from the Gila River at a rate of 16,150 acre-feet/year. These curves illustrate that much of the water removed from aquifer storage is replenished by recharge from the surface source. Appendix D of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) lists the computational steps for this groundwater analysis.

A.4 Existing Groundwater Models

A groundwater inventory table was compiled based upon data from various model reports (Table 4-1). The physical extent of those models is shown in Figure 4-12. The models are initial attempts to estimate aquifer capacities and responses to pumping and are not conclusive determinations of these values. For example, the Mimbres Basin appears to contain the largest volume of unappropriated water within the 230-foot administrative limit set by the New Mexico State Engineer Office. In addition, large quantities of groundwater may be available from storage at greater depths to support municipal and industrial uses in southwestern New Mexico. Groundwater at depths exceeding 230 feet may be economical for irrigation use only on high-value crops. The cost of pumping from greater depths will increase exponentially with depth and removal of large quantities of groundwater may cause subsidence, drying up of springs and playas and other land surface problems.

Also, water quality typically degrades with increasing depth, and expensive treatment processes may be necessary to use the water at greater depths. According to Shelley (1990), “There is a considerable amount of water quality information available showing that the water below the depths of the alluvium and especially in the igneous intrusive or connate zones is of too poor quality for most uses. In the Gila basin, there are areas where the water quality is of too poor quality to be of any agricultural or domestic uses, especially on the north side of Duck Creek. High fluoride levels in wells are found in many areas, including the Gila Valley below Riverside, part of San Francisco and Mimbres River areas and wherever warm springs are found.”

Shelley (1990), cautions: “Engineers and planners must not be misled, concerning computer groundwater modeling and the inferences extrapolated therefrom. Incorrect conclusions can lead to costly and extremely disappointing exploration work. The New Mexico State Engineer’s USGS model employed in the Mimbres administration criteria was developed primarily to estimate impairment and is based on coefficients largely extrapolated from within each administrative block. It is not a calibrated model. The results produced by this two-dimensional model, as well as the other two-dimensional models referred to in the appendices, are inferior in every way compared to the newer, modular, three-dimensional, finite-difference groundwater flow model of authors Michael G. McDonald and Arlen W. Harbaugh when the multilayered three-dimensional model is based on reasonable amounts of historical water levels and pump test data, and is
properly calibrated. There is no substitute for knowing the characteristics of the vertical stratigraphy, the faulting characteristics of the areas modeled (not inferred characteristics) and the water content and water quality characteristics of the areas being modeled to obtain reasonable results.”

The 3-dimensional model of the Mimbres Basin referred to by Shelley is presently being developed by the USGS, but the modeling results are not available at this time. This refined model may clarify the issues of water availability at various depths as well as the geographic distribution of the aquifer because recent test drilling has shown that many locations, especially in the northern parts of the Mimbres Basin, cannot yield water, and several livestock wells have reportedly gone dry at depths of 400 feet. This type of 3-dimensional modeling should be developed for all sub-basins in the county.

B. WATER BUDGET

A sample water budget of a natural basin would have four components which are:

1. Precipitation.
2. Evapotranspiration (evaporation plus transpiration—water use by plants for growing).

Previous studies in western semi-arid rangelands indicate that (assuming a mean annual precipitation of 12 inches) approximately ninety percent of the precipitation is lost to evapotranspiration. Of the ten percent remaining approximately seven percent is surface run-off and three percent is groundwater recharge (Bransonet et al., 1981).

The long term evapotranspiration, groundwater recharge, and natural discharge rates may be assumed to be in an equilibrium condition if gauged surface flow records and water table draw-downs are used as a basis for water volume computations. This is possible because flow gages will measure flow rates in the streams after all upstream evapotranspiration from the watershed, including stream side areas, has occurred. Therefore evapotranspiration should not be accounted for unless major changes in vegetative cover are anticipated or have occurred. Also, it can be assumed that all recharge (inflow) to an aquifer is equal to natural discharge to springs, streams, playas, and underground overflow to another aquifer (outflow) if no other stresses, e.g., pumping are applied to the aquifer. Therefore, recharge would be an ongoing established process and should only be considered if the recharge area is significantly altered, e.g., by increasing surface water supplies.

Groundwater recharge may also be affected by many other factors such as plant evapotranspiration requirement relative to precipitation, soil type, and geology. The recharge on a large basin is very difficult to predict; however, the quantity is a very small
percentage of perhaps three percent in the semi-arid basins within the study area.

Consequently, neither evapotranspiration nor groundwater recharge has been included in the budgeting computations in the Simyld-II Models for the study area basins. All surface flow data based on flow gage records naturalized for man-made diversions are described later in this section; and all groundwater pumpage volumes are assumed to be entirely from groundwater storage, thereby reducing the total aquifer storage volume, accordingly. Again, assuming the recharge/natural discharge characteristics of an aquifer were initially in equilibrium, any pumpage of groundwater will reduce the natural discharge and remaining storage volume, resulting in “mining” of the aquifer. The only method to manage an aquifer as a renewable resource is to increase recharge.

**B.1 Evapotranspiration**

The natural rangeland plant communities have developed and are geographically located mainly as a result of the mean annual precipitation. The native rangeland vegetation uses a significant quantity of the mean annual precipitation in transpiration. In this semi-arid area, evaporation from the land surface may be as much as two-thirds of the mean annual precipitation (Keller, 1971). Again, assuming 12 inches of mean annual precipitation, evapotranspiration (evaporation plus transpiration) is from 10.5 inches or eighty-seven percent (Keller, 1971) to 11.5 inches or ninety-six percent (Branson et al., 1976). Therefore, in many of the drier areas, the evapotranspiration exceeds the mean annual precipitation on the average. This condition is indicated by the lack of perennial streams in many areas where localized surface run-off only occurs during intense thunderstorms.

Surface run-off increases directly with increase in precipitation as evapotranspiration during the rainfall event is more easily satisfied. Other factors which also affect surface run-off include soils, geology and types of plant communities and their associated evapotranspiration requirement. The timing and type of precipitation (snow or rain) also plays an important role in the quantity of surface run-off.

**B.2 Hydrologic Analysis**

All available water resources data for surface water and groundwater were reviewed and used to perform numerous hydrologic analyses. A large number of figures and tables which summarize these analyses are included in Appendix C of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document). A brief summary of each analysis along with sample figures, is described in this sub-section of the report. For more details see Appendix C.
B.3 Annual Discharge

The total annual discharge from each river basin generally varies greatly from year to year as seen in Figure 4-13. This erratic pattern illustrates the potential for shortages if relative water demands are high. Therefore, it is desirable to build reservoirs to store water during the high flow years to sustain demands through low flow years. Figure 4-13 depicts annual flows measured at the gage near Glenwood on the San Francisco River. See Appendix C of the Southwest Regional Water Plan (as provided in Appendix 2 of this document) for other examples.

B.4 Mass Curve Analysis

Mass curve (a cumulative addition) of annual flows was also developed from the annual gage flow data as shown on Figure 4-13. A mass curve is valuable in determining long-term trends in the hydrologic cycle and, specifically, the expected yield from surface runoff. Figure 4-13 shows that a drought period of low flow (relative to the total period of record) occurred from about 1950 to about 1965.

The mass curve analysis indicates a normal flow period prior to 1950, followed by a drought period lasting to 1965 and a very wet cycle beginning in 1972. During the wet cycle, the average annual flow in the river increased by as much as fifty percent above the previous average annual flows. For example, the San Francisco River near Glenwood increased from 42,200 acre-feet/year to 71,800 acre-feet/year, as shown on the mass curve in Figure 4-14. Therefore, the study area has been experiencing much wetter than normal years during the recent past, which could lead to a false sense of security with regard to long-term water supplies, unless the prior normal and dry years are also considered.

The mass curve may be used to approximate the maximum yield or firm yield that a reservoir must provide or to compute the reservoir capacity required to satisfy a specified demand. However, because of the time distribution of demand by month (throughout the year) and the monthly variation of river flows, the monthly analyses as conducted in Simyld-II is a more accurate method than an annual analysis. In the study, the mass curves were used to determine the years when the drought period would occur and to endure its inclusion into the period of record used in the Simyld-II analysis.

B.5 Mean Annual Discharge

The mean annual discharge data for the USGS flow gages are listed in Table 4-2. Most of these flow gages reflect upstream demands from surface diversions and demands from wells in the river valley (alluvium). Water to these wells is supplied by river recharge to the pumped aquifer. The natural flow was computed for several locations along the San Francisco River as necessary for the river basin models used in this study. For the
average year, the San Francisco River yields 64,000 acre-feet at Alma.

Table 4-2. Summary of Selected U.S.G.S. Gage Data

<table>
<thead>
<tr>
<th>San Francisco River Basin</th>
<th>Clifton (AZ)</th>
<th>Glenwood (NM)</th>
<th>Alma (NM)</th>
<th>Tularosa R. Aragon (NM)</th>
<th>Reserve (NM)</th>
<th>Thomas Cr. Alpine (AZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.G.S. Gage No.</td>
<td>09444500</td>
<td>09444000</td>
<td>09443000</td>
<td>09442692</td>
<td>09442680</td>
<td>09489082</td>
</tr>
<tr>
<td>Drainage Area (sq. mi.)</td>
<td>2,766</td>
<td>1,653</td>
<td>1,546</td>
<td>94</td>
<td>350</td>
<td>-----</td>
</tr>
<tr>
<td>Gage Elevation (ft. above m.s.l.)</td>
<td>3,436</td>
<td>4,560</td>
<td>4,840</td>
<td>6,750</td>
<td>5,820</td>
<td>8,380</td>
</tr>
<tr>
<td>Mean Annual Flow (ac-ft)</td>
<td>157,279</td>
<td>61,440</td>
<td>64,050</td>
<td>2,530</td>
<td>21,080</td>
<td>92</td>
</tr>
<tr>
<td>Mean Annual Flow per acre (ac-ft/sq.mi)</td>
<td>57</td>
<td>37</td>
<td>41</td>
<td>27</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

An analysis of flow per unit area is a convenient way to compare the water yields of several drainage areas. Table 4-2 also lists the mean annual flow for all gages. The values range, typically, from 27 acre-feet/square mile (Tularosa River-Aragon) to about 60 acre-feet/square mile (Thomas Creek-Alpine, AZ.).

B.6 Mean Monthly Discharge

The maximum monthly mean discharge occurs in March for all gages as a result of Spring snow-melt. Figure 4-14 shows the mean monthly flows for the San Francisco River near Glenwood which is a typical distribution for most of the gages. Similar graphs for the other gages are given in Appendix C of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document).

B.7 Discharge Duration Analysis

The discharge duration analysis identifies the percent of time a given discharge is equaled or exceeded. This analysis identifies expected or dependable low flows for purposes of identifying fisheries habitat, in-stream flows and base flow. Figure 4-14 also shows a discharge-duration graph for the San Francisco River near Glenwood. For example, a discharge of 50 CFS or greater may be expected forty-five percent of time based on the gage record.

Discharge duration curves and mean monthly flows for all flow gages in the study area are included in Appendix C. These data were used to analyze base flow rates (see below) and also to evaluate whether sufficient flow rates would remain in the streams to assure continued propagation of existing flora and fauna.
B.8 Base Flow Analysis

The discharge-duration data from the USGS gage was used to determine the base flow of the San Francisco River. The flow rate occurring during seventy-five percent of the time was assumed as the base flow. The water requirement from irrigated areas above the gages was also added to account for the loss reflected at the flow gages. Table 4-3 summarizes the base flow analysis for the USGS flow gages.

Table 4-3. Base Flow Analysis

<table>
<thead>
<tr>
<th>Mainstream Gaging Stations</th>
<th>Near Reserve</th>
<th>Near Alma</th>
<th>Near Glenwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviated Station No.</td>
<td>4427</td>
<td>4430</td>
<td>4440</td>
</tr>
<tr>
<td>Intervening Reach (miles)</td>
<td>39.6</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Dec. – Feb. Mean Flow¹</td>
<td>26</td>
<td>114</td>
<td>91</td>
</tr>
<tr>
<td>Intervening Gain or Loss²</td>
<td>+88</td>
<td>-23</td>
<td></td>
</tr>
<tr>
<td>Flow Duration Exceeded 75% of Time¹</td>
<td>5.3</td>
<td>2.2</td>
<td>21</td>
</tr>
<tr>
<td>Irrigation Requirements at 60 Acres/cfs</td>
<td>4.7</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Intervening Gain or loss</td>
<td>+19</td>
<td>+25</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: San Francisco River gains 1 to 2 cfs/mile above Alma; lower reaches lose baseflow, probably to residual irrigation depletion effects.

² Irrigation diversion not considered.

B.9 Flow Record Adjustment

As shown in Figure 4-15 many of the USGS surface water flow gages in the study area do not have complete records of even the same years of record as other gages. For purposes of modeling each river basin for forty years of record, the missing years in the period of record were synthesized for those gages with missing data within the desired forty years (1938-1977) time span (see Appendix C of the Southwest Regional Water Plan—as provided in Appendix 2 of this document).

The 1938-1977 period of record was selected for two purposes. First, a drought period lasting from 1950 to 1965 had to be included with adequate normal conditions during the years before the drought occurred. Second, as seen on the mass curves, the 1972 to 1990 period shows a significantly wetter cycle with much higher water yields. This cycle, if used alone, could suggest the availability of much greater water volumes. Therefore, only the 1972 to 1977 period of the wet cycle was selected for inclusion in this study. Also, this occurs at the end of the modeling period and, therefore, the selected length of wet period record will not have a major impact on the modeling results.
The natural flow at the flow gage and tributary flow between flow gages was required for input to Simyld-II. The natural flow was computed by increasing the gage flow by all existing upstream demands for the period of record, or using results from the base flow analysis, or proportioning the mean annual gage data by drainage area. Appendix C describes the specific procedures used for each drainage basin to determine the natural flow at various locations within each river basin.

C. WATER SUPPLIES & STORAGE FACILITIES

C.1 Existing Water Supplies & Storage Facilities

The San Francisco River Basin provides perennial surface water supplies. All of the study basins provide groundwater from wells for various irrigation, municipal and industrial uses.

The existing surface ponds, lakes, and reservoirs are shown on Figure 4-6. The capacities or maximum reservoir volumes of the major storage facilities are about 4,000 acre-feet for Snow Lake (located in the Upper Gila River Basin) and 2,400 acre-feet for Quemado (Little Colorado River Basin). Both of these lakes are man-made lakes located on perennial streams.

C.2 Past Planning Activities

Beginning in 1980, the U.S. Bureau of Reclamation (USBR) has conducted several studies to effect the 18,000 acre-feet exchange with Central Arizona Project (CAP) water as allocated to New Mexico under The Lower Colorado Basin Act (see Chapters 3 & 7). Initial investigations included nine dam sites along the Gila and San Francisco Rivers in New Mexico and Arizona, two off-stream storage sites on Mangas Creek, and groundwater pumping along the Gila River near Cliff, New Mexico.

Hooker Dam, one of the authorized features of the CAP, was eliminated because of high costs and environmental impacts. Only two of the mainstream dams, Conner and Quail Springs, appeared feasible. However, there could be significant environmental impacts to two native fishes, the Spikedace (Meda Fulgida) and Loach Minnow (Tiaroga Cobitis) which are protected under the Endangered Species Act. Consequently, the USBR has concentrated on the off-stream storage alternative, while the Interstate Stream Commission has investigated the groundwater pumping option.

Also, the USBR has conducted extensive and detailed analyses of daily flow, diversion rights and requirements, minimum fish flow requirements and costs impacts (USBR, 1986, 1990). Based on the results of these studies, the USBR has reduced the net yield for the project from 18,000 acre-feet to 9,000 acre-feet (USBR, 1987).
At present, the preferred option is as follows: Recently the U.S. Forest Service and the Catron County Recreational Water Development Committee have begun initial work on a feasibility study for building one or more reservoirs in Catron County. While this facility (or facilities) would primarily be oriented to recreational use, possible benefits could also be derived for agricultural, municipal, and industrial uses. Likely candidate sites would include the Upper Frisco Watershed Project Sites identified by the U.S. Conservation Service (as described later in this section), but actual proposed locations have yet to be determined.

**C.3 Proposed Water Storage Facilities**

Previous studies by others have identified locations for water supply reservoirs and flood and sediment control watershed projects. Figure 4-6 also shows the locations of those proposed projects. The water supply reservoirs which may be feasible and/or were recommended in these previous studies were included in this study as new water supplies, but the flood and sediment control projects were only included as evaporation demand locations.

The San Francisco River Basin has two proposed reservoirs originally named Upper Frisco Watershed Projects sites 2 and 5 in the SCS report (SCS, 1964). Site 2, located near Reserve, also called Reserve Site in the U.S. Bureau of Reclamation study (1985), was modeled in this study as a water supply reservoir with a capacity of 34,000 acre-feet. Site 5 was not considered because it is located on a small upstream tributary near Luna. Site 5, mentioned above, along with several other sites are now under consideration by the Catron County Recreational Water Development Committee.

**D. WATER QUALITY**

The quality of surface and groundwater throughout the study area is very good and well suited for all existing uses. Soil erosion, as shown in Figure 4-16 is an expected occurrence in Catron County due to the steep terrain, geology, and heavy downpours typical of southwestern weather. Appendix E of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) includes a detailed discussion of water quality in the study area with sampling results, use designations and water quality standards established by the New Mexico Environmental Improvement Division. Stream segments referred to in this Appendix are shown in Figure 4-6.

Potential liquid waste water sources of contamination are shown on Figure 4-17 and potential solid waste sources of contaminations are shown on figure 4-18. Several instances of groundwater contamination by septic tank concentrations have been recorded in Catron County at Glenwood, Luna, Mogollon, Quemado, and Rancho Grande. (SWNMCOG, 1990)
CATRON COUNTY-1985 GROUND AND SURFACE WATER
WITHDRAWALS (ACRE FEET PER YEAR) BY CATEGORY OF USE

- Reservoir Evaporation: 24 AF
- Recreation: 1 AF
- Fish and Wildlife: 1321 AF
- Power: 886 AF
- Military: 240 AF
- Minerals: 1 AF
- Industrial: 5 AF
- Commercial: 10 AF
- Stockpond Evaporation: 8600 AF
- Livestock: 528 AF
- San Fran. Valley (Flood Img.): 377 AF
- San Aug Plans (Flood Img.): 243 AF
- Quemado & Vic. (Flood Img.): 1 AF
- Rural: 3 AF
- Urban: 229 AF

CATRON COUNTY-1985 GROUND AND SURFACE WATER
DEPLETIONS (ACRE FEET PER YEAR) BY CATEGORY OF USE

- Reservoir Evaporation: 24 AF
- Recreation: 1 AF
- Fish and Wildlife: 531 AF
- Power: 886 AF
- Military: 5 AF
- Minerals: 1 AF
- Industrial: 5 AF
- Commercial: 10 AF
- Stockpond Evaporation: 8600 AF
- Livestock: 528 AF
- San Fran. Valley (Flood Img.): 377 AF
- San Aug Plans (Flood Img.): 243 AF
- Quemado & Vic. (Flood Img.): 1 AF
- Rural: 104 AF
- Urban: 173 AF
Catron County
Water Plan

Chapter 4
Existing Water Resources

LEGEND

SURFACE DRAINAGE
BASIN DIVIDE
DECLARED GROUND
WATeR BAsIN

1. Rio Grande
2. Gila – San Francisco
3. Warden Valley
4. Nue – Hackett
5. Mimbres Valley
6. Lordsburg Valley
7. Animas
8. San Simon
9. Playas Valley

REGIONAL WATER PLAN
CATRON, GRANT, HIDALGO, AND LUNA COUNTIES, NM
SURFACE WATER AND GROUND WATER BASINS
SOUTH WEST NEW MEXICO PLANNING DISTRICT V

Resource Technology, Inc.
FIGURE 4.5

4-13
CHAPTER 4

EXISTING WATER RESOURCES

LEGEND

- Water Quality Stream Reach Number
- Perennial Stream
- Ephemeral Stream
- Groundwater Basin Divide
- Gage Station (Used in This Study)
- Existing Lakes / Reservoirs
- Reservoir Sites Proposed by Others
  A. Upper Frias Watershed Project, Site 5
  B. Upper Frias Watershed Project, Site 2
  C. Hooker Dam
  D. Upper Gila Valley Arroyos Watershed Plan
  E. Conner Dam
  F. Virden-Duncan Valley Watershed Project
  G. Cooney Dam
  H. Wimbres Dam
  I. Silver City Watershed Project
  J. Mongos Creek Dam

- Modeled as Evaporation Demand Only
- Modeled as a Reservoir
- Not Modeled in This Study

REGIONAL WATER PLAN
CATRON, GRANT, HIDALGO, AND LUNA COUNTIES, NM

WATER RESOURCES
SOUTHWEST NEW MEXICO PLANNING DISTRICT V

FIGURE 4.6

4-14
CONTOURS OF WATER LEVEL ELEVATIONS OF RECORD

Data from Ground Water Site Inventory of U.S. Geol. Survey, 1990

FIGURE 4.7
Note: All wells in the county are not shown; only those wells monitored by the USGS are shown. This information is used to indicate trends only; actual water use and water rights were used to estimate water demands.

**Figure 4.8**

**Location Map of Wells in Catron County by Aquifer**

Note: All wells in the county are not shown; only those wells monitored by the USGS are shown. This information is used to indicate trends only; actual water use and water rights were used to estimate water demands.
**USE OF WELLS IN CATRON COUNTY**

<table>
<thead>
<tr>
<th>Use</th>
<th>Number of Wells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock</td>
<td>344</td>
</tr>
<tr>
<td>Domestic</td>
<td>332</td>
</tr>
<tr>
<td>Unused</td>
<td>65</td>
</tr>
<tr>
<td>Irrigation</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td>Public</td>
<td>3</td>
</tr>
<tr>
<td>Commercial</td>
<td>2</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>1</td>
</tr>
<tr>
<td>Industrial</td>
<td>1</td>
</tr>
<tr>
<td>Mining</td>
<td>1</td>
</tr>
<tr>
<td>Fire</td>
<td>1</td>
</tr>
</tbody>
</table>

**Note:** All wells in the county are not shown; only those wells monitored by the USGS are shown. This information is used to indicate trends only; actual water use and water rights were used to estimate water demands.

**LOCATION MAP OF WELLS IN CATRON COUNTY BY USE**

**Note:** All wells in the county are not shown; only those wells monitored by the USGS are shown. This information is used to indicate trends only; actual water use and water rights were used to estimate water demands.
Figure 4.11

Estimated Effect of Groundwater Withdrawal on Adjacent Surface Water Sources

- Gila Alluvium 0.5 ml. from Gila River
- Lordsburg Basin 24 ml. from Gila Fl.
- Mimbres Basin 26 ml. from Mimbres Fl., source radius 3 ml.
- Silver City 13 ml. from Manges Spr., source radius 3 ml.
- Hudu 22 ml. from Rio Grande
- Columbus 35 ml. from Laguna Guzman, source radius 3 ml.
- Playas 5 ml. from Playas L., source radius 1 ml.

Percent of groundwater withdrawal derived from a surface water source

Time in years

0.1 1 10 100 1000
MEAN MONTHLY FLOW
(4440) = San Francisco River near Glenwood, 1929-1985, 1653 sq. mi.
(Diversions for irrigation of about 2000 acres upstream,
equiv. to 33 c.f.s.)

DURATION CHART
(4440) = San Francisco River near Glenwood, 1928-1985

adjusted for 33.33 c.f.s. diversion on 2000 irrigated acres

Data from: U.S. Geological Survey, 1989; (WRI 88-122B)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN FRANCISCO RIVER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>NM09442680</td>
<td>RESERVE</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM09442692</td>
<td>TULAROSA RIVER*ARAGON</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>NM09443000</td>
<td>ALMA</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>NM09444000</td>
<td>GLENNWOOD</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AZ09444500</td>
<td>CLIFTON</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AZ09489082</td>
<td>THOMAS CREEK*ALPINE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GILA RIVER</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM09430500</td>
<td>GILA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM09430600</td>
<td>MOGOLLON CREEK</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM09431500</td>
<td>REDROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM09432000</td>
<td>VIRDEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AZ09442000</td>
<td>CLIFTON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MIMBRES RIVER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM08477000*</td>
<td>MIMBRES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM08477110*</td>
<td>MIMBRES</td>
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</tr>
<tr>
<td></td>
<td>NM08477500</td>
<td>FAYWOOD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NM08477600</td>
<td>SILVER CITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* GAGE WAS MOVED DOWNSTREAM
-- -- SYNTHESIZED FOR USE IN SIMYLD-II PROGRAM

PERIOD OF RECORD SUMMARY FOR SELECTED SURFACE WATER GAGING STATIONS

FIGURE 4.15
Chapter 5

Water Use

A. TYPES OF WATER USE

A.1 Typical Use Applications

Public Notice water permit activity for the Southwestern New Mexico Region from February 1989 to January 1990 is summarized on Figure 5-1A, 5-1B, and 5-1C. The data on these figures are arranged by basin, purpose of use, and permit application, and are indicative of the types of uses being considered at present. These data were compiled by the State Engineer office in Deming. Most of the water permit activity in the study area for this period of time takes place in the Animas Basin. The majority of the water is appropriated for irrigation.

A.2 1988 Estimated Irrigated Crop Acreage

There are three types of irrigation methods used in Southwestern New Mexico – Drip, Sprinkler, and Flood Irrigation. Figure 5-2 summarizes the acres of cropland irrigated by each method for the county as summarized by Lansford (1989).

A.3 Existing Use Data

There are twelve categories of water use in 1985 that were quantified for each county by Wilson (1986). These categories are as follows:

- Urban
- Rural
- Irrigated Agriculture
- Livestock
- Stock Pond Evaporation
- Commercial
- Industrial
- Minerals (Mining)
- Power
- Fish and Wildlife
- Recreation
- Reservoir Evaporation

These data were compiled by the Santa Fe office of the State Engineer and were only used in the present study when no other data were available. Specific described later in
this chapter and in Appendix F of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document).

The largest category of water use in terms of withdrawals or diversion in each county within the study area is irrigation. The largest category for water depletion (not returned to system) is also irrigation. Tables 5-1A, B, and C contain listings of the twelve water use categories by surface and groundwater withdrawal and depletion in each county for 1985, 1980, and 1975, respectively. Table 5-2 summarizes total withdrawals and depletions for the county in 1985, as indicated in the Wilson Report. Catron County withdrew 12,472 acre-feet.

The percentage of total withdrawal from surface or groundwater indicates Catron County withdrew seven percent from groundwater.

Irrigation agriculture is the largest withdrawal in the county. The irrigation withdrawal, as a percentage of total withdrawal for Catron County, is fifty-two percent. The second largest withdrawal in Catron County is fish and wildlife at eleven percent.

Table 5-1A. Water Use in Catron County, 1985

<table>
<thead>
<tr>
<th>Water Use Category</th>
<th>Withdrawals (acre ft.)</th>
<th>Depletions (acre ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Surface Water</td>
<td>Ground Water</td>
</tr>
<tr>
<td>Urban</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rural</td>
<td>0</td>
<td>229</td>
</tr>
<tr>
<td>Irrigated Agriculture</td>
<td>9,128</td>
<td>377</td>
</tr>
<tr>
<td>Livestock</td>
<td>240</td>
<td>243</td>
</tr>
<tr>
<td>Stock Pond Evaporation</td>
<td>886</td>
<td>0</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Industrial</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Minerals</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Military</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Power</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fish &amp; Wildlife</td>
<td>1,321</td>
<td>1</td>
</tr>
<tr>
<td>Recreation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reservoir Evaporation</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>11,599</strong></td>
<td><strong>873</strong></td>
</tr>
</tbody>
</table>

Data from Wilson, 1986
### Table 5-1B. Water Use in Catron County, 1980

<table>
<thead>
<tr>
<th>Water Use Category</th>
<th>Withdrawals (acre ft.)</th>
<th>Depletions (acre ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Surface Water</td>
<td>Ground Water</td>
</tr>
<tr>
<td>Urban</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rural</td>
<td>0</td>
<td>163</td>
</tr>
<tr>
<td>Irrigated Agriculture</td>
<td>13,240</td>
<td>420</td>
</tr>
<tr>
<td>Livestock</td>
<td>274</td>
<td>280</td>
</tr>
<tr>
<td>Stock Pond Evaporation</td>
<td>886</td>
<td>0</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Industrial</td>
<td>0</td>
<td>10</td>
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<tr>
<td>Minerals</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Military</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fish &amp; Wildlife</td>
<td>554</td>
<td>0</td>
</tr>
<tr>
<td>Recreation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reservoir Evaporation</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>14,979</td>
<td>887</td>
</tr>
</tbody>
</table>

From Sorensen, 1982.

¹ Land Based only.

### Table 5-1C. Water Use in Catron County, 1975

<table>
<thead>
<tr>
<th>Water Use Category</th>
<th>Withdrawals (acre-feet)</th>
<th>Depletions (acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Surface Water</td>
<td>Ground Water</td>
</tr>
<tr>
<td>Urban</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rural</td>
<td>0</td>
<td>122</td>
</tr>
<tr>
<td>Irrigated Agriculture</td>
<td>4,170</td>
<td>700</td>
</tr>
<tr>
<td>Livestock</td>
<td>311</td>
<td>310</td>
</tr>
<tr>
<td>Stock Pond Evaporation</td>
<td>815</td>
<td>0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Minerals</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Military</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Power</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fish &amp; Wildlife</td>
<td>590</td>
<td>0</td>
</tr>
<tr>
<td>Recreation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reservoir Evaporation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Playa Lake Evaporation</td>
<td>200</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>6,086</td>
<td>1,150</td>
</tr>
</tbody>
</table>

From Sorensen, 1982.

¹ Land Based only.
Table 5-2. Summary of Withdrawals & Depletions (1985)

<table>
<thead>
<tr>
<th></th>
<th>Withdrawals</th>
<th>Depletions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water</td>
<td>93</td>
<td>84</td>
</tr>
<tr>
<td>Ground Water</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Total (acre-feet)</td>
<td>12,472</td>
<td>3,338</td>
</tr>
</tbody>
</table>

From Wilson, 1986

B. EXISTING WATER USE POLICIES

B.1 Federal & State Policies

The following discussion is paraphrased from the U.S. Bureau of Reclamation (1985):

The allowable uses of water in the Gila-San Francisco Basins were defined by the United States Supreme Court in Arizona vs. California which completely allocates the limited water supply to existing users and there is no available surplus. Consequently, no additional consumptive uses of water, either from surface diversions or groundwater pumping, are permitted. The only source of readily available water is the purchase of existing rights.

In the other basins within the study area, groundwater is the only reliable source. Water development in these basins may be restricted in the future.

Although, additional water supplies can sometimes be developed by building storage dams and capturing flood flows that were not usable and therefore were not claimed as part of a water right before the storage facility was constructed; the provisions of the Gila decree and Arizona vs. California allow this approach only if Central Arizona Project (CAP) water were to become a source of exchange water that could be given to downstream users of Gila River water in exchange for any additional upstream uses.

As described by the U.S. Bureau of Reclamation (1985): “The CAP involves bringing Colorado River water into Central Arizona. The authorization for CAP also allows for the consumptive use of an annual average, over any ten consecutive years, of 18,000 acre-feet of Gila River water by New Mexico users. This supply for New Mexico would be accomplished by “trading” Colorado River water for Gila River water. This trade must be made, however, without causing economic injury or cost to water rights holders on the Gila River in Arizona.”

B.2 County Policies

A review of the subdivision regulations of Catron County indicates that the standard requirements of the New Mexico subdivision regulations (with minor modifications) are
enforced for both water supply and waste water disposal. These regulations do not address specific water use concerns such as consumption rates or conservation; however, protection of water quality is implemented by use of setbacks and related criteria. In all cases, the subdivider is required to address the water supply and waste water disposal issues.

C. POPULATION PROJECTIONS

Although the 1990 census has just recently been completed, verified results are not yet available. Therefore, the most recent “hard” census data available dates from 1980, necessitating the use of projections to obtain estimates of current populations. The Census Bureau provides such estimates for each county, as well as selected communities, for intermediate years up to 1988. These figures were further projected to obtain a 1989 baseline population for use in this study. Table 5-3 shows historic and present estimated population figures. Appendix F.1 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) contains a detailed description of forecasting methods used for both existing and future conditions.

Table 5-3. Historic Population Trends in Catron County

<table>
<thead>
<tr>
<th>Year</th>
<th>Reserve</th>
<th>Catron Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td></td>
<td>2,773</td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td>2,198</td>
</tr>
<tr>
<td>1980</td>
<td>439</td>
<td>2,720</td>
</tr>
<tr>
<td>1986</td>
<td>480</td>
<td>2,700</td>
</tr>
<tr>
<td>1988</td>
<td>510</td>
<td>2,800</td>
</tr>
<tr>
<td>1989</td>
<td>510</td>
<td>2,800</td>
</tr>
</tbody>
</table>

Sources: U.S. Bureau of Census, UNM Bureau of Business & Economic Research, 1989

Population projections over the 40-year scope of this study were obtained from two different sources, based upon two sets of growth assumptions. The UNM Bureau of Business and Economic Research provided projections through the year 2030, based on the most recent census estimates and economic outlook, using a “cohort-component” method, as described in Appendix F.1 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document). Computations for this method are done by age group for the components of population change due to births, deaths, and net migration. This set of estimates represents the “low series” shown on the graph in Figure 5-3 and in Table 5-4. A recent survey of North County and real estate sales figures indicates that the projections are low, even using the high figures. (See Table 5-5.)
Both existing and future population figures has to be broken down according to the computer modeling demand nodes (see Chapter 4). This was accomplished by comparing the demand location map to census enumeration district maps and apportioning the data accordingly. Population growth to 2030 was estimated for both the high and low series projections for each demand node. For analysis purposes, individual communities, as well as rural areas within each node, were assumed to grow at the same rate as the county over the duration of the study.

**D. EXISTING & FUTURE WATER DEMANDS**

Estimated 1988 water uses for selected communities are listed in Table 5-6. The detailed demands for all areas are listed in Appendix F2 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document).

**D.1 Municipal & Domestic Demands**

Community water service consumption data was tabulated for three of the communities within the study area, based on actual usage figures. Pie Town, Quemado, and Reserve provided usable data which were then averaged to obtain annual total figures, as well as a monthly breakdown of usage for each respective community. These total figures were then converted to an acre-feet per year format and divided by the population of the community to derive per-capita usage demands for each of the municipalities.

### Table 5-4. 40-Year Population Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2,896</td>
<td>3,204</td>
</tr>
<tr>
<td>2000</td>
<td>3,070</td>
<td>3,749</td>
</tr>
<tr>
<td>2010</td>
<td>3,153</td>
<td>4,223</td>
</tr>
<tr>
<td>2020</td>
<td>3,174</td>
<td>4,633</td>
</tr>
<tr>
<td>2030</td>
<td>3,196</td>
<td>5,177</td>
</tr>
</tbody>
</table>


*High Series: New Mexico University, 1987.*
### Table 5-5. Results of North Catron County Water Use Survey  
(Summer & Fall 1991)

<table>
<thead>
<tr>
<th>Water Use</th>
<th>No. Responding</th>
<th>Acre-Feet Per Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Little Colorado Basin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>76</td>
<td>6,505.35</td>
</tr>
<tr>
<td>Domestic &amp; Domestic Irrigation</td>
<td>55</td>
<td>538.10</td>
</tr>
<tr>
<td>Total</td>
<td>131</td>
<td>7,043.45</td>
</tr>
<tr>
<td>Future Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic &amp; Domestic Irrigation</td>
<td>31</td>
<td>146.20</td>
</tr>
<tr>
<td><strong>On the Divide at Pie Town</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>10</td>
<td>262.25</td>
</tr>
<tr>
<td>Future Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic &amp; Domestic Irrigation</td>
<td>3</td>
<td>9.99</td>
</tr>
<tr>
<td><strong>Eastern North County: All Three Basins</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>55</td>
<td>2,989.98</td>
</tr>
<tr>
<td>Domestic &amp; Domestic Irrigation</td>
<td>55</td>
<td>187.82</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>3,177.80</td>
</tr>
<tr>
<td>Future Use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>2</td>
<td>70.00</td>
</tr>
<tr>
<td>Domestic &amp; Domestic Irrigation</td>
<td>40</td>
<td>133.20</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>203.20</td>
</tr>
</tbody>
</table>

There was a total of 1600 mailed surveys. 50 were returned or rejected as incomplete. We believe the following are accurate estimates of percentages:

- **Current users:**
  - Agricultural, 141 responses equal approximately 90%.
  - Domestic & Domestic Irrigation, 109 responses equal approximately 90%.
- **Future Additional requirements:**
  - Agricultural, 2 responses equal approximately 1.5%.
  - Domestic & Domestic Irrigation, 74 responses equal approximately 6%.

The amounts do not include future requirements for the Salt River Project Coal Mine which we estimate at 600 Ac./Ft. per year. Village requirements are listed in Chapter 4, Existing Water Resources.
### Table 5-6. Municipal & Domestic Water Demands

<table>
<thead>
<tr>
<th>Node</th>
<th>Location</th>
<th>Population¹</th>
<th>Per-Capita Demand (ac-ft)</th>
<th>Annual Total (ac-ft)</th>
<th>Population</th>
<th>Annual demand (ac-ft)²</th>
<th>Population</th>
<th>Annual demand (ac-ft)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Includes: Omega, Pie Town</td>
<td>192</td>
<td>0.0854³</td>
<td>16</td>
<td>219</td>
<td>19</td>
<td>355</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Includes: Quemado, Salt Lake</td>
<td>402</td>
<td>0.0854³</td>
<td>34</td>
<td>459</td>
<td>39</td>
<td>743</td>
<td>63</td>
</tr>
<tr>
<td>1</td>
<td>Includes: Adams diggings</td>
<td>25</td>
<td>0.0854³</td>
<td>2</td>
<td>29</td>
<td>3</td>
<td>46</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>Misc. Ranches</td>
<td>326</td>
<td>0.0854³</td>
<td>28</td>
<td>372</td>
<td>32</td>
<td>603</td>
<td>52</td>
</tr>
<tr>
<td>1</td>
<td>Includes: Datil, New Horse Springs</td>
<td>510</td>
<td>0.24564</td>
<td>125</td>
<td>582</td>
<td>143</td>
<td>943</td>
<td>2995</td>
</tr>
<tr>
<td>1</td>
<td>Reserve Village</td>
<td>510</td>
<td>0.24564</td>
<td>125</td>
<td>582</td>
<td>143</td>
<td>943</td>
<td>2995</td>
</tr>
<tr>
<td>1</td>
<td>Other – Includes: Luna, Pine Lawn, San Francisco Plaza, Lower San Francisco Plaza</td>
<td>420</td>
<td>0.0854³</td>
<td>36</td>
<td>480</td>
<td>41</td>
<td>776</td>
<td>865</td>
</tr>
<tr>
<td>2</td>
<td>Includes: Apache Creek, Aragon, Cruzville</td>
<td>188</td>
<td>0.0854³</td>
<td>16</td>
<td>215</td>
<td>18</td>
<td>348</td>
<td>385</td>
</tr>
<tr>
<td>3</td>
<td>Includes: Alma, Glenwood, Mogollon, Pleasanton, &amp; Mule Creek (Grant Co.)</td>
<td>672</td>
<td>0.0854³</td>
<td>57</td>
<td>780</td>
<td>67</td>
<td>1,202</td>
<td>35</td>
</tr>
</tbody>
</table>

1. See Population chapter for discussion of Methodology & Sources.
2. Future Per-capita consumption assumed to remain constant.
3. Estimated data, averaged for communities under 500 population.
4. Estimated data, averaged for communities over 500 population.
5. Future per-capita consumption rate increased by 30% to account for projected increases in tourist activities.

Since accurate consumption data was not available for the remainder of the study area, municipal and domestic demands for those areas had to be estimated. This was accomplished by computing two separate consumption averages based on population. Since so much of the study area is rural, communities of less than 500 population were separated from those over 500 population and average usage figures calculated accordingly. These values (determined as 76 GPCD for communities less than 500 population and 208 GPCD for the larger communities) were used for consumption demand when known values were not available. Appendix F2 contains a more detailed description of the methodology employed.

Future demands were determined based on both the high and low series projections for the year 2030. For these projections, per capita demand rates were assumed to remain at

5-8
present levels (i.e. that conservation measures in the future will likely offset increases in per-person use which often accompany population increase). The only exception is within the San Francisco River Basin, where per-capita demand rates were increased to account for projected increases in non-permanent (tourist) populations and related services. Population for each demand node was projected as a straight percentage of overall county growth.

**D.2 Agricultural Demands**

The agricultural demands were computed based on the location and acreages of the major farming areas within each basin and the diversion factor the farm acreage requires. Figure 3.10 shows the locations of existing agricultural areas. The geographical location of farmland was determined by drainage basin (New Mexico State Engineer, 1968). The acreage within each basin was determined by county (Lansford et. al., 1989) and was further divided by basin for this study (see Appendix F3 of the Southwestern Regional Water Plan—as provided in Appendix 2 of this document).

The annual diversion factor allowed by the State Engineer is 3 acre-feet/acre and this factor was applied to the farmland acreage to compute the annual agricultural diversion volume per basin in acre-foot for existing conditions.

The future condition (year 2030) farmland acreage was determined based on the location of all lands suitable for irrigation (New Mexico State University Department of Agronomy, 1972). Figure 5-4 shows the location of moderately and highly suitable lands for irrigation. The identified irrigable acreages are very large and large water shortages would occur if all of the area will be irrigated. Also, it is unlikely that all of the area will be irrigated in the future. Therefore, the 2030 condition irrigated acreage was assumed to be directly proportional to the future condition (high series) population based on the ratio of existing condition acreage to existing population. The future agricultural demand volume was also computed assuming 3 acre-feet/acre as the diversion demand factor. Appendix F3 includes a detailed description of the computational procedure and other irrigation information. The assumptions arrived at in Table F3-1 and F3-2 for future irrigated acreage do not correspond to direct inquiry surveys in North County.

**D.3 Fish, Wildlife & Recreation Demands**

The annual water demands for fish, wildlife, and recreation are very small compared to other demands. In-stream flow requirements for fish and wildlife have not been adopted or adjudicated by the State Engineer. However, the U.S. Bureau of Reclamation (1990) has adopted the flow requirements for the Spikedace species as one of the minimum flow requirements in the Gila River. That flow rate series was also adopted in this study. Water consumption for wildlife preserves is also very small. Recreation demands are based on existing rivers, ponds, lakes, and reservoirs and may be considered small. The existing and future demands were based on 1985 data (Wilson, 1986). Appendix F4 of
The Southwestern Regional Water Plan (as provided in Appendix 2 of this document) lists the assumptions used to compute recreation demands.

**D.4 Lake Evaporation Demands**

The location of existing ponds, lakes, and reservoirs were obtained from several maps and are shown on figure 4.6. Area-elevation-capacity data were available on some of the lakes and reservoirs; however, if no data were available, the maximum water surface area was estimated from maps. The monthly distribution of water surface evaporation was determined using data from the nearest weather station and Figure 3.6 which shows the mean annual water surface evaporation. Several of the smaller lakes are large shallow depressions which cover several acres when full, but are only a few acres in area throughout most of the year. To provide full consideration to these lakes when full, all existing ponds, lakes, and reservoirs were modeled for annual evaporation based on the maximum surface area and the mean annual evaporation depth.

The proposed reservoirs and watershed projects were obtained from previous reports and are also shown on Figure 4.6. Evaporation demands from the most feasible reservoirs, as determined by these reports, were modeled as either from the maximum surface area, or evaporation which varies based on a fluctuating surface area. Appendix F5 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) describes the methodology and provides additional information.

**D.5 Livestock & Stock Pond Demands**

Water consumption for livestock and stock pond evaporation is a very small percentage of the annual water consumption in the county. The annual withdrawal for livestock and stock pond evaporation was quantified for the year 1985 (Wilson, 1986) and these values were assumed for the existing conditions (year, 1990). The geographical distribution for these water demands was determined according to the estimated grazing capacity of all land within the county as shown on Figure 5-5. The grazing capacity was divided into two classes which were 0-8 head per section (low capacity) and 9-18 head per section (high capacity). The future condition (year 2030) demands were assumed as twice the existing demands. Appendix F6 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) contains a more detailed description of the methodology.

**D.6 Mining Demands**

Appendix F7 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document) summarizes the assumption and calculations, by county, for existing and future demands.
PUBLIC NOTICE WATER PERMIT ACTIVITY
FEBRUARY, 1969 - JANUARY, 1990
ARRANGED BY PERMIT APPLICATION

FIGURE 5.1A
PUBLIC NOTICE WATER PERMIT ACTIVITY
FEBRUARY, 1989 - JANUARY, 1990
ARRANGED BY BASIN

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>WATER IN ACRE FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTT-HOCKETT</td>
<td></td>
</tr>
<tr>
<td>SAN SIMON</td>
<td></td>
</tr>
<tr>
<td>GILA</td>
<td></td>
</tr>
<tr>
<td>SAN FRANCISCO</td>
<td></td>
</tr>
<tr>
<td>PLAYAS</td>
<td></td>
</tr>
<tr>
<td>LORDSBURG</td>
<td></td>
</tr>
<tr>
<td>MIMBRES</td>
<td></td>
</tr>
<tr>
<td>VIRDEN VALLEY</td>
<td></td>
</tr>
<tr>
<td>GILA-SAN FRANCISCO</td>
<td></td>
</tr>
<tr>
<td>ANIMAS</td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 5.18
Chapter 6

Analytical Procedures

A. SIMYLD-II SIMULATION COMPUTER MODEL

A.1 Model Description

The surface and groundwater resources and the water demands within each basin were modeled with the SIMYLD-II River Basin simulation computer model developed by the Texas Water Development Board (1972). SIMYLD-II is capable of modeling the inflow, outflow, demands, losses, reservoir storage, or spillage in a basin with multiple rivers, canals, pipelines, and reservoirs based on user supplied data. The program allows the user to specify priorities for meeting demands and maintaining desired reservoir storage volumes on a monthly basis.

The following sub-sections describe the data, operating criteria, scenarios, modeling networks and assumptions, results and potential benefits. Separate models were developed for the Animas, Gila, Little Colorado, Mimbres, North Plains, playas, Rio Grande, San Agustin, San Francisco, San Simon, and Wamel Basins. The 36 square mile Rio Yaqui Basin is the extreme southwestern corner of Hidalgo County was not modeled because of its size and lack of potential development.

A.2 Model Networks

The initial requirement for developing the SIMYLD-II model input is to geographically locate within each basin all water supplies and demands, diversion, or withdrawal locations, sub-basin drainage divides, flow gages, and locations of proposed water projects. The next step is to simplify the known information form map form to a basin schematic. Figures 6-1 and 6-4 show the basin schematics for the San Francisco and other basins, respectively.

For preparation of the modeling network and for practical reasons, the demands and other features of the basin schematics were combined as shown on the basin schematics with modeling node boundaries. The modeling networks or schematics were then developed from the basin schematics. Figures 6-5 and 6+8 show the modeling schematics for the San Francisco and other basins, respectively. Diversions from outside the basin were input as tributary inflow, and export from the basin were treated as additional demands.

All items within each modeling node boundary are now located at a single node. The nodes are connected by links which indicate the flow direction. These nodes and links
are shown on the modeling schematics in network format and the geographical distribution of the nodes are shown in Figure 6-5.

**A.3 Modeling Priorities**

The model nodes show on Figures 6-5 and 6-8 have numbers identifying the node and also its order of priority to satisfy total demands over other nodes in the basin. Node priority generally begins in the upper basin and proceeds downstream. The priority for modeling existing and future conditions for meeting demands and maintaining storage in the aquifers and proposed reservoirs are as follows:

1. Municipal and domestic demands (mostly from groundwater) will be satisfied first.
2. Diversions for irrigation, mining, and other demands will be satisfied next.
3. Storage in existing and proposed reservoirs will be maintained only after all other demands are satisfied. The proposed reservoirs are only allowed to accumulate water after all other demands are satisfied.

**A.4 Arizona Flow Requirements**

In the Gila River Basin, special demand requirements are established because of prior interstate water rights adjudications under the Gila Decree and the Arizona vs. California agreements. These complex requirements as described by the USBR (1990) are as follows: “These decrees impose limits on instantaneous diversions, total yearly diversions, and the allowable annual ‘Upper Valley Consumptive use.’ The major user groups located upstream of San Carlos Reservoir are the Duncan-Virden Valley users, the Safford Valley users, and the San Carlos Apache Indians. Under the Gila Decree, the maximum rates at which these groups can divert are 101 cfs, and 12.5 cfs, respectively. These Amounts were computed by multiplying the number of decreed acreage by 1/80 cfs per acre. Because of the difficulty in predicting in-stream flow losses, flow rates in excess of these were required at the heads of the respective valleys. Therefore, a predicted flow of 200 CFS was required at the head of the Duncan-Virden Valley, and 600 cfs was required at the head of the Safford Valley before any upstream diversions were allowed. The limit on the total annual diversions is 6 acre-feet per acre per year, while the maximum allowable Upper Valley consumptive Use is 120,000 acre-feet per year.”

The Gila River near Redrock carries 200 cfs only 25 percent of the time. Therefore, Arizona has not typically received this amount of water in the past.

The U.S. Fish and Wildlife Service has also developed a monthly flow requirement for the Spikedace fish species, ranging from 65-250 cfs (as listed by USBR, 1990).
The flow requirements, although still in excess of historical flows in the river, were adopted as essentially meeting Arizona’s flow requirement in the present study.

A similar analysis is not possible for the San Francisco River; therefore, replication of historic lows at the state line was adopted as the Arizona flow requirement. This approach may underestimate Arizona’s prior water rights, but a more detailed analysis is beyond the scope of this project.

A.5 Demand Sequences

Three demand sequences were modeled to understand the water resource response to different levels of demands and the degree of benefits to be derived from proposed reservoirs. The demand sequences modeled are:

- **E** Existing Condition Demands, without Arizona (Spikedace) requirements. Approximate replication of historic flows.
- **EA** Existing Condition Demands, with Arizona (Spikedace) requirements (Gila River only).
- **F** Future Condition Demands, without proposed reservoirs with Arizona (Spikedace) requirements (Gila River only).
- **FR** Future Condition Demands, with proposed reservoirs with Arizona (Spikedace) requirements (Gila River only).

A.6 Input Data Preparation

A composite weighted monthly demand was computed for each node based on the number and type of demand categories at the mode (see Appendix F.8 of the Southwestern Regional Water Plan—provided in Appendix 2 of this document—for composite demand computation tables).

The water demand categories used in the composite demand calculations include:

1. Municipal and domestic.
2. Irrigation.
3. Livestock and stock pond evaporation.
4. Mining.
5. Pond, lake, and reservoir evaporation.
6. Recreation, fish, and wildlife.
The sources and methods of computation for these demand categories were described previously (Chapter 3). Table 6-1 summarizes the total demand at each modeling node per basin for existing and future conditions. Figure 6-4 shows the demand categories per node according to geographical locations.

**Table 6-1. Summary of Existing & Future Demands by Node**

<table>
<thead>
<tr>
<th>Basin</th>
<th>Node/¹ Condition</th>
<th>Annual Demand (ac-ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little Colorado</td>
<td>1/E</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>241</td>
</tr>
<tr>
<td></td>
<td>2/E</td>
<td>3,180</td>
</tr>
<tr>
<td></td>
<td>2/F</td>
<td>4,266</td>
</tr>
<tr>
<td>North Plains</td>
<td>1/E</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>128</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>1/E</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>102</td>
</tr>
<tr>
<td>San Agustin Plains</td>
<td>1/E</td>
<td>869</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>1,671</td>
</tr>
<tr>
<td>San Francisco</td>
<td>1/E</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>385</td>
</tr>
<tr>
<td></td>
<td>2/E</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>2/F</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>3/E</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>3/F</td>
<td>1,133</td>
</tr>
<tr>
<td></td>
<td>4/E</td>
<td>1,487</td>
</tr>
<tr>
<td></td>
<td>4/F</td>
<td>2,774</td>
</tr>
<tr>
<td></td>
<td>6/E</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6/F</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>8/E</td>
<td>920</td>
</tr>
<tr>
<td></td>
<td>8/F</td>
<td>1,538</td>
</tr>
<tr>
<td></td>
<td>9/E</td>
<td>797</td>
</tr>
<tr>
<td></td>
<td>9/F</td>
<td>1,491</td>
</tr>
</tbody>
</table>

E = Existing Condition  
F = Future Condition  
¹ Node Number as used in the SIMYLD-II Program.

### A.7 Assumptions

Several assumptions made during the data preparation and modeling phases are as follows:
1. All demands are considered withdrawals because return flows cannot be adequately quantified or assured. Therefore, use of depletion volumes would be less reliable. Neither the location nor the quantity of return flows can be assured for the future because these items are not regulated or imposed on the water user. Therefore, it seems reasonable to qualitatively assess the impacts of return flows as a supplementary sources or as a reduction of demand.

2. All existing ponds, lakes, and reservoirs were modeled only for evaporation based on the maximum water surface area. They were not modeled as storage facilities in which the capacity fluctuates throughout the year. This approach was selected because none of these existing reservoirs include water supply storage available for public use. Most are recreational and Bill Evans Lake is a terminal facility for the Tyrone Mine pipeline. Also, operations records for these reservoirs are not available.

3. The large proposed reservoirs in the Gila, Mimbers, and San Francisco basins were modeled as reservoirs whose storage capacities fluctuate according to inflows and demands.

4. Due to the high transmissivity of the alluvium and location of most wells in the Gila and San Francisco valleys adjacent to the rivers, the groundwater demands are satisfied directly from river flow. In all other basins, the groundwater demands are not supplied by river recharge to the aquifer; the water source is an aquifer.

5. The period of record assumed for the modeling (1938-1977) includes a drought period which may be repeated in the future. This period of record is assumed to repeat itself from 1990 to 2030.

6. The existing condition demands were assumed to remain constant each year throughout the forty-year (1938-1977) period for the existing conditions analysis (Demand Sequence E and EA [Gila River Basin only]).

7. The future condition demands were estimated for the year 2030. The future condition analyses (Demand Sequences F and FR) assumed a constant demand per year for the forty-year modeling period (1990-2030).

8. Recharge to groundwater is in equilibrium and therefore was not modeled. If recharged is accounted for, then the natural discharge to springs, streams, playas, and underground overflow into another aquifer must also be estimated. This level of detailed analysis is beyond the scope of the present study.

9. Only the municipal and domestic demands based on the “high series” population projection was modeled for the future condition demand. Based on this “high series” the demands are quite modest; therefore, any plan that meets these
demands will accommodate the “low series” demands. However, not to overbuild or over-commit resources, local water plans should consider which population projection is most appropriate to local needs and plan accordingly. For example, urban areas will probably rely on the “high series” but the “low series” may be better for rural areas.

10. Evapotranspiration from all native rangeland vegetation, (grasslands, brush, trees, etc.) is an ongoing process. Because no extensive changes in vegetative cover or stream bank vegetation is planned, or expected, the present rates of evapotranspiration will continue with no change in this component of the water budget for each basin.

11. The irrigation demands at Luna (upper San Francisco Basin) are supplied by Luna Reservoir located in Arizona and were not modeled. Domestic demands are included at the node for Reserve (Node 1).

12. Water demands for fish and wildlife are expected to double by the year 2030, as described in Chapter 3 and Appendix F.4 of the Southwestern Regional Water Plan (as provided in Appendix 2 of this document).

13. Recharge and/or depletion of the lower Gila River from the Lordsburg groundwater basin and other river basins were not modeled but are considered and discussed.

14. Water quality was not considered as a limit within the model or demand categories. However, it is quite possible that surface water sources could become contaminated by an industrial accident, for example; or groundwater in some parts or depths of an aquifer could be naturally of poor quality. Such data is not available for the entire model area, and spot location problems may not be representative of the total node area.

15. Water rights were not used as a method of prioritizing demands. Instead, this plan attempts to satisfy all demands; water rights priorities would only be a factor if new developments were not possible or if a more severe drought than the 1950-1965 drought should occur. It is very important, however, to recognize that senior downstream rights do exist on all the study area streams. The complex flow delivery requirements for Arizona users in the Gila River Basin would require a day-to-day (or even shorter) modeling time period (e.g. irrigation only during daylight hours). Because the present analysis is based on a monthly time period, such a refined analysis is not possible. These Arizona flow requirements were initially included in the historic deliveries of water in the Gila and San Francisco Rivers at the state line. In other words, if the historic flow sequences are used upstream, then the same volumes of historic lows are delivered to Arizona at the state line. This approach was initially adopted because the Arizona requirements cannot be adequately modeled on a monthly basis. As discussed earlier, a
Continuous 200 cfs flow requirement for Arizona (USBR, 1990) is unrealistic because the Gila River has not historically had this amount of continuous flow. Similarly, the historic river flows did not satisfy even the fish flow requirements.

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Chapter 7

Operational Analysis

The Simyld-II model was operated for four demand sequences which are:

- **E** Existing Conditions Demands, without Arizona (Spikedace) requirements (Gila River only), but replicating historic flows at the state line.
- **EA** Existing Condition Demands, with Arizona (Spikedace) requirements (Gila River only).
- **F** Future Condition Demands (year 2030) without proposed reservoirs, with Arizona (Spikedace) requirements (Gila River only).
- **FR** Future Condition Demands (year 2030) with proposed reservoirs, with Arizona (Spikedace) requirements (Gila River only).

### A. EVALUATION OF SURFACE WATER MODEL RESULTS

#### A.1 Reservoirs

The proposed reservoirs are Venus Project Dams, and the Upper Frisco Watershed Project Site 2—also called Reserve Dam (San Francisco River). Although these dams are identified, Simyld-II is not restricted to them. Any alternate dam or series of small dams (both main-stem and off-channel) may be substituted at the same node. The only change would be the area-elevation-capacity relationship which determines the amount of evaporation losses and the amount of spill (if reservoir is full) each month. So, any potential reservoir can be investigated if the identified reservoir selection should change.

#### A.2 Surface Water Demands

The modeling results from the Simyld-II program are summarized in Table 7-1 according to the demand nodes for existing conditions, future conditions (year 2030) without proposed reservoirs and future conditions (year 2030) with proposed reservoirs.
### Table 7-1. Summary of River Basin Modeling Results

<table>
<thead>
<tr>
<th>Node General Description</th>
<th>Node/Condition</th>
<th>Average Annual Demand (ac-ft)</th>
<th>% of Years Annual Shortage (ac-ft)</th>
<th>Average Annual Shortage (ac-ft)</th>
<th>Maximum Annual Shortage (ac-ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Little Colorado Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pic Town to Omega Domestic Demand</td>
<td>1/E</td>
<td>132</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Domestick Demand</td>
<td>1/F</td>
<td>241</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quemado &amp; Salt Lake Domestic Demand</td>
<td>2/E</td>
<td>3,181</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2/F</td>
<td>4,268</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>North Plains Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adams Digging Domestic Demand</td>
<td>1/E</td>
<td>65</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>128</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td><strong>Rio Grande Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Domestic &amp; Livestock Demand</td>
<td>1/E</td>
<td>53</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>San Agustin Plains Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>New Horse Springs &amp; Patel Domestic &amp; Irrigation Demand</td>
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<td>871</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
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<td><strong>San Francisco River Basin</strong></td>
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<tr>
<td>Proposed Upper Frisco Watershed Project Site 5 Evaporation</td>
<td>6/E</td>
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</tr>
<tr>
<td></td>
<td>6/F</td>
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<td>6/FR</td>
<td>129</td>
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</tr>
<tr>
<td>Luna to Lower San Francisco Plaza Municipal Demands</td>
<td>1/E</td>
<td>163</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>383</td>
<td>0</td>
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<td>0</td>
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<tr>
<td></td>
<td>1/FR</td>
<td>383</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Reserve to Lower San Francisco Plaza Irrigation Demands; Proposed upper Frisco Watershed project Site 2</td>
<td>4/E</td>
<td>1,148</td>
<td>0</td>
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<tr>
<td></td>
<td>4/F</td>
<td>2,775</td>
<td>87</td>
<td>189</td>
<td>554</td>
</tr>
<tr>
<td></td>
<td>4/FR</td>
<td>2,775</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aragon to Cruzville Domestic Demand</td>
<td>8/E</td>
<td>919</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>8/F</td>
<td>1,539</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>8/FR</td>
<td>1,539</td>
<td>0</td>
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</tr>
<tr>
<td>Aragon to Cruzville Domestic Demand</td>
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<td>17</td>
<td>0</td>
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</tr>
<tr>
<td></td>
<td>2/F</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>2/FR</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alma to Pleasanton Domestic Demand</td>
<td>9/E</td>
<td>799</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>9/F</td>
<td>1,493</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td></td>
<td>9/FR</td>
<td>1,493</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alma to Mule Creek Domestic Demand</td>
<td>3/E</td>
<td>62</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3/F</td>
<td>1,136</td>
<td>0</td>
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<tr>
<td></td>
<td>3/FR</td>
<td>1,136</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stateline Domestic Demand</td>
<td>5/E</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5/F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5/FR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

E = Existing Condition  
F = Future Condition  
FR = Future Demand Condition with Proposed Reservoir
A.3 Existing Conditions

There were no shortages in any basins for existing condition demands for surface water supply.

A.4 Future Conditions Without Proposed Reservoirs

The future conditions without proposed reservoirs modeling results for the San Francisco River showed an average annual shortage between Reserve and lower San Francisco Plaza (node 4) of 189 acre-feet and shortages occurred during 87 percent of the years with a maximum annual shortage of 554 acre-feet.

A.5 Future Conditions With Proposed Reservoirs

The future demand condition with the proposed reservoirs reduced the shortages previously discussed.

For the San Francisco River Basin the future condition demands as modeled in this study are small relative to the available flow in the river basin. Consequently, the future conditions model results indicate a small acreage annual shortage in the Reserve-Lower San Francisco plaza (node 4) of 189 acre-feet. This small shortage is eliminated with the storage of water in Reserve Dam or Venus Project Dams.

Figure 7-1 summarizes the surface water average annual shortages for the Mimbres, San Francisco, and Gila River Basins for the four conditions modeled. This figure clearly illustrates the large reduction in shortages for the Gila and Mimbres River Basins with water storage available from Mangas Creek Dam and Mimbres and Cooney Dams, respectively. The San Francisco River Basin future demands (as modeled) are small compared to the river flow and, therefore, a smaller reservoir than the Reserve Dam is capable of meeting those needs.

A.6 Summary of Flows at the State Line

As shown in Figure 7-2 which compares the Gila River computed historic flows at the New Mexico-Arizona state line for the different demand conditions, the Simyld-II existing condition model flows are very comparable to the computed flows at the state line. The two lower curves in this figure show the impact of imposing the Spikedace flow requirements as an upstream demand. The “future with reservoir and Spikedace demands” curve (the lowest curve), shows that no additional water is left in the river—it is all in the reservoir. The minimal water volume shown on the graph is the local inflow from the intervening area from Redrock to the state line.

Figure 7-2 also shows the frequency of shortages that would occur under the fish flow (Spikedace) requirements. Under existing conditions, without Mangas Creek Dam, one-
hundred percent of the years do not have enough flow to meet the fishflow requirements during some months. With Mangas Creek Dam this is reduced to 45 percent of the years.

A similar analysis was conducted for the San Francisco River (Figure 7-3), but in this case the increase in future demands is not significant. Arizona or downstream fishflow requirements cannot be apportioned for this river because the data are not available at present. However, without storage, even 50,000 acre-feet per year would result in shortages 50 percent of the time.

A.7 Proposed Reservoir Operations

Table 7-2 is a summary of the reservoir operations analysis. The Reserve reservoir on the San Francisco River remained nearly at full capacity throughout the future demands sequence. The maximum capacity is 34,000 acre-feet and the average annual reservoir capacity based on the end of month content for 40 years is 33,886 acre-feet or about 97 percent full. These results indicate that a small reservoir of perhaps 2,000 acre-feet capacity can satisfy existing or future demands (year 2030) as modeled in the study. The small average annual shortage of 189 acre-feet does not warrant a large reservoir.

A.8 Summary of Surface Water Demands

The existing surface water demands are satisfied in the San Francisco Basin by the river run-off.

The future condition demands without the proposed reservoir in the San Francisco Basin would be non-existent since no future development beyond current consumption would be allowed without acquiring additional water from the CAP.

B. EVALUATION OF GROUNDWATER MODEL RESULTS

B.1 Groundwater Demands

The groundwater demands in the San Francisco and Gila River Basins were actually modeled as being supplied directly by the San Francisco and Gila Rivers, respectively. This is due to the high transmissivity of the alluvial aquifers and close proximity of the municipal or domestic well fields to the rivers. However, all other basins were modeled with groundwater as the only supply.
### Table 7-2. Reservoir Operations & Ground Water Impact Summary

<table>
<thead>
<tr>
<th>Node General Description</th>
<th>Node/Condition</th>
<th>Maximum Reservoir Capacity (ac-ft)</th>
<th>Minimum Reservoir Capacity (ac-ft)</th>
<th>Average Annual Flow @ Stateline (ac-ft)</th>
<th>Elevation Drop in Ground Water (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Upstream to Downstream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Little Colorado Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pie Town to Omega Domestic Demand</td>
<td>1/E</td>
<td>243,900</td>
<td>238,620</td>
<td>N/A</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>243,900</td>
<td>234,260</td>
<td>N/A</td>
<td>45</td>
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<tr>
<td>Quemado &amp; Salt Lake Domestic Demand</td>
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<td>243,900</td>
<td>116,660</td>
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<td>157</td>
</tr>
<tr>
<td></td>
<td>2/F</td>
<td>243,900</td>
<td>73,180</td>
<td>N/A</td>
<td>210</td>
</tr>
<tr>
<td><strong>North Plains Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adams Diggings Domestic Demand</td>
<td>1/E</td>
<td>243,900</td>
<td>241,300</td>
<td>N/A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>243,900</td>
<td>238,700</td>
<td>N/A</td>
<td>6</td>
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<tr>
<td><strong>Rio Grande Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Domestic &amp; Livestock Demand</td>
<td>1/E</td>
<td>243,900</td>
<td>241,780</td>
<td>N/A</td>
<td>3</td>
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<tr>
<td></td>
<td>1/F</td>
<td>243,900</td>
<td>239,900</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td><strong>San Agustín Plains Basin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Horse Springs &amp; Patel Domestic &amp; Irrigation Demand</td>
<td>1/E</td>
<td>1,467,300</td>
<td>1,432,460</td>
<td>N/A</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>1,467,300</td>
<td>1,400,380</td>
<td>N/A</td>
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<td><strong>San Francisco River Basin</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve to Lower San Francisco Plaza Irrigation Demands; Proposed Upper Frisco Watershed project Site 2</td>
<td>4/E</td>
<td>34,000</td>
<td>32,837</td>
<td>33,886</td>
<td>0</td>
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<tr>
<td></td>
<td>4/F</td>
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<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4/FR</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
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<td></td>
<td></td>
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<td>56.972</td>
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<td>5/F</td>
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<td></td>
<td></td>
<td>53.118</td>
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<tr>
<td></td>
<td>5/FR</td>
<td></td>
<td></td>
<td></td>
<td>52.192</td>
</tr>
</tbody>
</table>

E = Existing Conditions  
F = Future Condition  
FR = Future Demand Condition with Proposed Reservoir  
N/A = Not Applicable

1. After 40 years.  
2. Maximum ground water reservoir volume assumed at 300 feet of water depth.  
3. Minimum ground water reservoir volume at end of 40 years of constant pumping demand.

### B.2 Groundwater Reservoirs

The groundwater supply reservoir (aquifer) was assumed to have a linear yield per foot of draw-down as was described in Chapter 2. The yields were determined for two generalized transmissivities as shown on Table 7-3. The groundwater reservoirs were assumed to be 300 feet in depth. In all cases the draw-downs are computed assuming an isotropic aquifer where the transmissivity is uniform everywhere and adjacent wells are assumed sufficiently apart so as not to interfere with each other. Because of the geographic scale and budget for this project, specific site anomalies cannot be adequately
modeled. Detailed site planning will have to consider these local problems.

**Table 7-3. Summary of Aquifer Capacities**

<table>
<thead>
<tr>
<th>Basin</th>
<th>Transmissivity (gal./sq.ft.)</th>
<th>Q/s Capacity gpm/ft¹</th>
<th>River Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5,000</td>
<td>50,000</td>
<td>100%</td>
</tr>
<tr>
<td>Little Colorado</td>
<td>X</td>
<td>12.6</td>
<td>100%</td>
</tr>
<tr>
<td>North Plains</td>
<td>X</td>
<td>12.6</td>
<td>0%</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>X</td>
<td>12.675.8</td>
<td>0%</td>
</tr>
<tr>
<td>San Agustin Plains</td>
<td>X</td>
<td>75.8</td>
<td>0%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>X</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 7-3 summarizes the draw-down at the end of 40 years as a result of pumping the existing and also future demands. These values are assumed to be from the existing (1990) water table to year 2030.

**B.3 Draw-Down**

Table 7-2 also summarizes the draw-down at the end of 40 years as a result of pumping the existing and also future demands. These values are assumed to be from the existing (1990) water table to year 2030.

**B.4 Well Hydrographs**

Figure 4-16 shows well hydrographs at various locations in the study are excluding Catron County (where not enough data were available to plot a hydrograph). However, Figure 4.16 shows data for even wells in Catron County as recorded by the USGS. The initial depth of the water for the wells shown in Figure 4.16 was used in addition to the draw-down depth determined from the model at the end of 40 years to determine the water table depth below the ground surface for existing demands and future demands. Figure 4.7 was used along with data from a well in Quemado to estimate the depth to groundwater in Catron County.

**D.5 Depths to Water**

Table 7-4 summarizes the depth to the water table as a result of the existing demands as well as future demands (after pumping for 40 years). The cost of pumping water from these depths may be excessive and may be unfeasible for irrigation use. However, pumping for municipal and domestic demands may be feasible at these depths. These depths could be reduced if additional well fields were constructed with less demand from each field, but the corresponding collection and transmission costs will increase.
Table 7-4. Estimated Depth to Water Table  
(Existing & Future Conditions)

<table>
<thead>
<tr>
<th>Basin</th>
<th>Node/Condition</th>
<th>Existing Average Depth From Ground Surface to Water Table (ft)</th>
<th>Modeling Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing Average Depth From Ground Surface to Water Table (ft)</td>
<td>Drawdown After 40 Yrs. (ft)</td>
</tr>
<tr>
<td>Little Colorado</td>
<td>1/E</td>
<td>200</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>200</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>2/E</td>
<td>250</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>2/F</td>
<td>250</td>
<td>210</td>
</tr>
<tr>
<td>North Plains</td>
<td>1/E</td>
<td>250</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>250</td>
<td>6</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>1/E</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>San Agustin Plains</td>
<td>1/E</td>
<td>250</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1/F</td>
<td>250</td>
<td>14</td>
</tr>
</tbody>
</table>

E = Existing Condition  
F = Future Condition  
FR = Future Demand Condition with proposed reservoir.

B.6 Summary of Groundwater Demands

The water table draw-down depths will be significant to excessive in 40 years for existing and future demands. The draw-down depths in some places could be excessive. An alternative would be to drill new wells sufficiently distant that they do not affect each other or the existing wells, if the local aquifer characteristics (transmissivity and recharge) are not deficient. The existing and future groundwater models may be capable of selecting these locations for any specific community. The reduction in draw-down impacts is directly proportional to the number of independent well fields; independence of wells is a relative term since the radius of influence can be infinite—as used herein, a minimal interference is allowable to establish independence.
Chapter 8

Water Conservation

One aspect of water use to be evaluated by the State Engineer office in granting a new water right is the planned water conservation measures to be implemented with the proposed use. To provide a positive approach to this issue, conservation should be viewed as the management of water demand which is a major alternative or supplement to traditional supply management (increasing water supply). In spite of the widespread public perception that water conservation means constraint of a necessary water use or even, perhaps, a reduction of economic growth, the need for, and benefits from water conservation can be significant.

Residential water conservation, which results in reduced water and sewer bills, also increases the efficiency of the water supply, reduces the peak demand and the treatment and distribution capacity needs. Benefits also accrue to sewage treatment plants whose treatment needs will be reduced, thereby extending their usefulness and reducing the operating energy costs. Industrial water conservation can allow existing or undeveloped water supplies to be used for other purposes. Agricultural water conservation can extend the operational life of an irrigation project and reduce land subsidence, increased soil salinity, non-point pollution and other adverse environmental impacts.

A. CONSERVATION TECHNIQUES

A.1 Domestic & Municipal

On average for the United States, the American Public Works Association (1981) has estimated the following distribution of domestic water use:

<table>
<thead>
<tr>
<th>Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor Use</td>
<td>28 Percent</td>
</tr>
<tr>
<td>Toilet Flushing</td>
<td>28 Percent</td>
</tr>
<tr>
<td>Bathing</td>
<td>22 Percent</td>
</tr>
<tr>
<td>Laundry and Dishes</td>
<td>18 Percent</td>
</tr>
<tr>
<td>Drinking and Cooking</td>
<td>4 Percent</td>
</tr>
</tbody>
</table>

A more detailed breakdown of both indoor and outdoor use in Tucson, Arizona, is depicted in Figure 8-1. In this specific case, outdoor use is 40 percent of total use, most of which is used for lawn irrigation and related purposes. With sophisticated irrigation planning and aggressive use of conservation measures, 60 to 70 percent savings are possible; but even the most primitive conservation measures can reduce water use by 25 percent (Ferguson, 1987).
Ferguson (1987) also states that “To accomplish the greatest benefits of efficient water use, the urban development plan, planting design, and irrigation must be considered as a whole. How water will be managed must be anticipated in the earliest stages of site layout; and the intentions of the layout must be carried out consistently in the detailed design and operation of grading, paving, planting, and irrigation systems.” Therefore, in order to reduce irrigation water demands, increase water use efficiency, and develop livable communities with the types of landscapes people want, the landscape irrigation plan must be well conceived using both water conserving equipment and types of plants native or adapted to the local climate.

Homeowner measures, such as toilet tank, shower, and faucet devices or water saving appliances, can incrementally add up to substantial reductions in water use. An effective way of retrofitting these devices in existing homes is coordinated free device distribution, advertising, and a follow-up user survey. During a water shortage, when use restrictions are imposed, homeowners will voluntarily purchase these devices.

Ultra-low flush toilets, composting toilets, high performance low-flow shower heads, efficient faucet aerators, and efficient lawn irrigation equipment provide permanent, reliable water savings. Water-efficient hardware can save water at less than a third the cost of supplying it anew and treating it twice. Fast, easy, certain, environmentally sound, and flexible in scale, utility-sponsored efficiency programs are a cheap and effective way to ease or forestall a water shortage – much cheaper than conventional supply development, and without the financial or environmental risk or large, irreversible investments (Woodwell, 1989).

Domestic water use can also be reduced by public education and information and by changing plumbing and building codes and subdivision regulations. These measures are usually not as controversial as price increases or pricing structure changes. Another municipal conservation alternative is limiting system pressure, leak detection and repair, and meter repair or replacement. A third alternative is imposing summer surcharges and replacing declining block rate charges with flat charges or inclining rate structures. This last method generally is the least acceptable to domestic water users.

Additional savings, chiefly in non-residential water use, are also possible and cost-effective. They include fixing leaks in municipal water systems; indoor and outdoor technological improvements in the commercial, industrial, and public sectors; more thoughtful choice of decorative vegetation; and improved application and management techniques in agriculture. Water and energy savings can also be achieved by encouraging people to buy more water efficient (but equally serviceable) dishwashers and clothes washers for new construction and when they replace existing units (Woodwell, 1989).
A.2 Industrial

Industrial water conservation techniques include (Morandi and Lazarus, 1982):

- Process control and improved raw water treatment systems.
- Water use metering, equipment maintenance, leak prevention and similar measures.
- Cooling tower treatment and blow-down process control.
- Recovery and reuse of steam and other process condensates.
- Use of clarification or other treatment to upgrade process water for reuse.
- Use of saline or municipal wastewater.
- Other advanced technologies including vapor compression evaporation, waste heat evaporation, reverse osmosis, and ultra-filtration, electro-dialysis, steam stripping, combination wet/dry cooling towers, air fin cooling, and cooling tower side stream softening.

Shelley (1990) comments: “The new and larger equipment being employed at Chino Mines Division has already produced considerable benefits in water conservation and maximum amounts of wastewater are being recirculated to industrial reuse. Additional pollution control facilities are also under construction to reclaim seepage water for use in the industrial circuit.” This type of conservation should be strongly encouraged and special incentives provided to industry. Such exemplary initiatives should also be publicly acknowledged.

Techniques for conserving agricultural water include (Doe, 1980):

- Reducing evapotranspiration and seepage losses from unlined canals.
- Providing drip or surge irrigation systems where feasible and economically practical.
- Providing soil monitoring systems to determine moisture content and irrigation requirement.
- Growing crops needing less water.
- Developing water delivery schedules based on soil moisture and crop needs.
- Assuring optimum operation of irrigation systems by appropriate maintenance and system upgrade.
• Increasing operational efficiency by measuring water deliveries.

• Controlling phreatophyte growth subject to wildlife, environmental and water rights issues.

• Re-leveling of fields for proper water application.

• Installing tail-water recovery systems.

B. MUNICIPAL & INDUSTRIAL WATER REUSE

B.1 Use Alternative

Water reuse is a particularly desirable alternative to freshwater supplies in Southwestern New Mexico. Municipal and industrial wastewater can be used for industrial purposes such as cooling process make-up water, boiler feed, and construction; urban uses such as lawn irrigation, fire protection, and toilet flushing; agricultural irrigation; livestock and wildlife watering, including cold and warm water fisheries and secondary contact recreation; and groundwater recharge (if properly treated) by land spreading or injection.

B.2 Advantages

As described by Morandi and Lazarus (1982) the advantages to reuse include:

• Increase in water supplies.

• Conservation of high-quality water for drinking and other purposes where a higher grade of water is demanded.

• Expansion of industrial/commercial/agricultural development opportunities.

• Groundwater protection against saltwater/brackish water intrusion through recharge of treated wastewater.

• Economic efficiencies in water management (e.g., selling or trading reusable water to supply agricultural, industrial, commercial, or other uses).

B.3 Disadvantages

One important constraint on reuse is that, with every cycle of use, the total volume of water is reduced as a result of uncontrollable system and process losses. Therefore, after several cycles of reuse, it is unrealistic to expect that the original volume of water will still be available.
Other disadvantages include:

- Potential health risks from reused water, and the product liability of reclamation authorities for any adverse health impacts.

- Cost of storage and transportation of wastewater and the cost of treating it to meet reuse application needs.

- Possible reduction of in-stream flows and harm to downstream water rights holders.

C. AGRICULTURE

C.1 Motivational Factors

While some mines in the study area have been practicing water reuse to varying degrees already, agricultural reuse offers great potential in the study area. Asano (1982) lists the following factors for motivating agricultural reuse:

1. Unavailability of fresh water supply at a competitive price.

2. Potential use of plant nutrients (nitrogen and phosphorous) in reclaimed water.

3. Desire to free higher quality water for other beneficial uses.

4. Requirement to treat wastewater to high levels (e.g., advanced waste treatment) prior to discharge to surface waters.

5. Prohibition of effluent discharges to surface waters.

D. CONSERVATION STRATEGIES

D.1 Classifications

All water conservation strategies can be grouped into three types—economic, managerial/technologic, and administrative/behavioral, as listed in Table 8-1. Kreutzwiser and Feagan (1989) determined that inclining metered rates were the best economic strategy and water conserving devices were the best administrative/behavioral strategies. All managerial/technologic strategies were found to be equally successful in conserving water use.
Table 8-1. Water Conservation Strategies

<table>
<thead>
<tr>
<th>Economic Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rates—flat, inclining &amp; declining metered structure</td>
</tr>
<tr>
<td>• Marginal pricing</td>
</tr>
<tr>
<td>• Summer surcharge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Managerial/Technologic Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Metering</td>
</tr>
<tr>
<td>• Leak Repair</td>
</tr>
<tr>
<td>• Reduced Pressure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administrative/Behavioral Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Education/information</td>
</tr>
<tr>
<td>• Water conserving devices</td>
</tr>
<tr>
<td>• Building plumbing ordinances &amp; subdivision regulations</td>
</tr>
<tr>
<td>• Density zoning</td>
</tr>
<tr>
<td>• Water use regulations—voluntary &amp; mandatory</td>
</tr>
</tbody>
</table>

Chapter 9

Water Development Plan

A. PLAN FORMULATION

Based on the results of the analyses conducted under this project, it appears that the expected demands (using the higher population series) can be met in the local areas of each county with only minor shortages, unless Arizona or fish flow demands, in excess of historic flows, are imposed or water is appropriated for exporting to Arizona.

Also, under the present pumping scenarios, the draw-down levels in portions of all basins, except the Rio Grande, will exceed the 230-foot criterion set by the State Engineer Office. The greatest draw-downs could occur in the Little Colorado Basin; however, it is unlikely that the wells would be lowered to the extent predicted in the model (Table 7-4) because a new well field, alternate source or conservation would be the preferred solution.

B. RECOMMENDED ACTIONS

It is more appropriate to identify certain actions to be implemented at the state, county, and local levels with federal assistance as warranted. Therefore, the following actions are recommended:

B.1 Reservoir Planning

Begin planning activities for the Reserve Dam and alternative dam sites. The Reserve Dam and alternatives are strongly promoted by local interests and will, primarily, increase recreational and environmental benefits: additional benefits could be derived for flood control, municipal, and agricultural uses. These reservoirs should be a minimum size of 2,000 acre-feet.

B.2 Form Local User Associations

Private water users should unite into public user associations which are empowered by the State Engineer Office to reserve future water rights. At present, private entities have to exercise their rights or face forfeiture actions by the State Engineer Office. Under existing state regulations, private water users have to put the water to beneficial use or lose the right to use it. However, public associations and user groups are not similarly restrained and they can pool their unused water rights and reserve them for the future. As an alternative, the
Accumulated water rights can be applied to other authorized uses such as pooled agricultural rights being used (when not needed by a farmer) in a recreational reservoir or other activity. This approach is being investigated at present.

**B.3 Form Municipal Associations**

Municipal areas should form an association to be able to afford well field development and water delivery from more distant areas, or to provide water from a single source area to as many communities as possible.

**B.4 State Level Participation**

Another water development option could be approached at the state legislative level. A state agency such as the State Engineer Office could fund the project construction and maintenance until firm user contracts were developed. One significant impact of this approach is that it fulfills the political need to commit the 18,000 acre-feet CAP allocation and will provide an emergency water supply if the need should ever develop. Such a project could provide immediate flood control and recreation benefits and storage volumes could be restrained so that the cost of water depletions to evaporation would be minimal.

**B.5 Identify Municipal & Industrial Well Field Sources**

Municipalities and industrial users should identify highly productive/existing well fields and initiate proceedings to acquire these field with, perhaps, a lease back or contract term sell back condition such that existing water uses are not immediately displaced or eliminated. Although this type of water rights acquisition has very limited opportunities, this recommendation is included because existing rights are easily transferred and the State Engineer Office administrative criteria could change in the future.

**B.6 Encourage Reuse and Conservation**

Reuse and conservation of water should be encouraged at all levels of use. Public awareness programs should be implemented as soon as possible and the effort should be sustained by frequent consciousness—raising activities, e.g., special awards and recognition to companies and individuals, expositions, and industrial fairs to acquaint the public with conservation ideas and equipment. Appropriate subdivision and land use code changes should also be considered.

**B.7 Water Quality Protection**

Protection of water quality should also be promoted, particularly in areas where non-point pollution, e.g., septic tanks, may occur. Also, active and abandoned
Mining spoils should be closely monitored to assure no seepage or excursion of leachates. Local communities must be involved in existing or planned clean-up activities.

**B.8 Restructure Existing Reservoirs**

Most of the existing reservoirs are small and very high up in the watershed. However, they could be enlarged to store municipal or industrial water that could be piped to point of use. Also, additional storage in these reservoirs could be used for low-flow augmentation, stream fishery enhancement and groundwater recharge. This approach could help reduce draw-downs during dry periods in domestic wells in the river alluvium and increase recreational benefits to stream fisherman.

**B.9 Flat Water Recreation**

Because the demand for flat water recreation is so great in the study area, a recreational reservoir, as planned by the U.S. Forest Service and Catron County interest, should be developed. This type of facility is in great demand and would also encourage economic growth, if properly planned. Again, this reservoir could hold additional water for municipal, industrial and agricultural uses, low-flow augmentation, stream fishery enhancement (and uses, corresponding in-stream recreation demands) and groundwater recharge.

**B.10 Groundwater Option for CAP Allocation**

If the full 18,000 acre-feet CAP allocation is not committed to any one CAP-related facility such as Mangas Dam, municipalities and other higher value water users could install shallow wells in the Gila and San Francisco River Valley alluvium and use this source of water as needed. This would be subject to the CAP exchange, Arizona’s requirements and environmental impacts along the stream. This option will need much more detailed engineering and economic feasibility analysis to determine how practical and appropriate this option can be.

**B.11 Beaver Reintroduction**

Because of the need to increase the amount of recharge in the study area, an active program of beaver reintroduction into the higher elevation streams should be initiated.
B.12 Injection Well Groundwater Recharge

Strong consideration should be given to utilizing flood water impounded in small lakes as a source for injection wells since evaporation losses diminish the storage efficiency of open lakes.

B.13 Vegetation Control

Fire suppression since the early 1900’s has resulted in increased vegetative densities. Every effort should be made to institute prescribed burning and mechanical removal to improve the watershed.

B.14 Water marketing Entity

And finally, strong consideration should be given to the formation of a public water authority that could develop water markets in the study area or beyond, generate financing, and construct, operate and own a major reservoir. This approach would reduce the type of economic analysis used by the U.S. Bureau of Reclamation and could allow more flexibility in size of reservoir, sale of water under term contracts to industry, etc. The state itself could be this water authority, or it could be a consortium of municipal, industrial, agricultural, and recreational interests. Detailed procedures to develop a regional organization for purchase and distribution of Gila River water in central Grant County are provided by W. G. Hines (1986). That report documents the political and economic factors, applicable New Mexico statutes, purpose of each organization, formation procedures, organizational, and administrative issues, funding and budget requirements and the power and authority available to three types of regional organization—metropolitan water boards, inter-community water associations, and water districts. Other types of organizations, e.g., conservancy districts and water authorities are also possible.

C. IMPLEMENTATION SCHEDULE

The recommended actions are sufficiently diverse so that a planned schedule is not necessary. Individual communities and water users can initiate their own projects as desired. Therefore, the following suggestions are provided only as a means of prioritizing certain portions of the recommendations.

Municipalities should begin acquiring any available water rights, and public water user associations or districts should be formed as soon as possible. Planning for a surface water storage dam and negotiating with Arizona users to exchange with CAP water should begin in the near future; the U.S. Bureau of Reclamation should be involved in this activity throughout its duration because of the federal involvement in this activity throughout its duration because of the federal involvement in this issue. Conservation programs should be initiated so that existing water supplies can be extended to their full potential. Political action
Should begin in the Legislature to induce a favorable reception to a major water resources development project(s) in the study area.

D. CONCLUSION

D.1 Surface Water

Surface water supplies can also be more fully developed. High flows can be stored and released as needed, not only for municipal, industrial, and domestic uses, but also for environmental needs during low-flow periods. Also, these surface supplies could be used to provide recreational opportunities and the corresponding economic boost to local areas.

D.2 Groundwater

Water supplies in the study area must be properly managed and carefully utilized. In some locations, ground water storage in the aquifers has not been fully exploited and the opportunity exists to develop new well fields as the need arises. The main problem is in identifying high yield areas in each aquifer and in delivering the water from the well field to the point of use.
The Catron County Water Plan

Appendices
Appendix 1

Impact of Water Law on Catron County

A. INTRODUCTION

Chapter 182 of the laws of 1987 authorizes the general planning of which this legal section is a part. That statute authorizes the interstate Stream Commission to appropriate groundwater or purchase water rights on behalf of the various regions of the State.¹ It also authorizes the “regional water planning”. While the scope and aim of such planning is somewhat ambiguous under the statute, it clearly contemplates a focus on legal and hydrological constraints on water alternatives in areas which share hydrologic and political commonalities.²

This section of the report analyses those aspects of current New Mexico water law likely to affect the planning and implementation of a water plan for Catron County. This section deals with the legal availability of water either by initiation of a new right or by transfer or replacement of an existing right for agricultural, industrial and municipal uses. The section proceeds to describe the legal constraints on that availability from those sources and for those uses.

This legal analysis makes no attempt to incorporate judgments as to the physical availability of or constraints on the implementation of any water plan. That aspect of this report is left to the hydrologists. Rather this section deals only with those aspects of New Mexico water that are extensively and deeply regulated by the laws of man, not nature.

The New Mexico constitution, as interpreted by the courts, as supplemented by the legislature and as partially administered by the state engineer, commits the state to the fundamental law of prior appropriation.³ However, that single state law is itself constrained by superior federal law including international law. In addition, New Mexico water law differs in important particulars from one local area to another and from one use to another. Just as there is no water law in the State of New Mexico, there is no one water law within the county. Water planning under the state law of prior appropriation requires attention both to superior federal law and to local differences in state law.⁴

The heart of this section of the report analyses the legal opportunities for and constraints on water management in the county according to three matrices. The

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¹ Chapter 182, Laws of New Mexico 1987.
² ibid., Section 2(a) and 2(c).
⁴ Ch. 182, Laws 1987 2(C)(5): Planning requires “adequate review of potential conflict with laws relating to impact on existing water rights”.

A1-1
Analysis is divided geographically, first by stream system (the Gila/San Francisco) and then by groundwater basin. For each area the report considers different opportunities for and constraints on the use of water for different purposes. Finally, for each area and each use the report adds the opportunities and constraints created by three sources of water, surface water, stream-connected groundwater, and groundwater not connected to a surface water source.

Two new terms—“public welfare” and “conservation”—have entered New Mexico water law recently. The terms simultaneously define legitimate state power in inter-state water, after the State Engineer’s jurisdiction over transfers of existing rights, force him to consider the factors in the creation of new rights, and are the basis, the measure and the limit of the formation of a water plan.

This report begins with a consideration of the meaning of those terms. The report then turns to a specific consideration of the limitations imposed on this plan by extra-state water law. In the bulk of this paper, the report analyses the opportunities created by and the limitations imposed by the state law of water as applied in the study area. Finally, the report considers the variety of water controlling institutions—from conservancy districts to community irrigation ditches—authorized by New Mexico law and analyzes each from the point of view of the power granted and limitations imposed.

B. “PUBLIC WELFARE” & “CONSERVATION” CONSIDERATIONS IN THE FORMULATION OF A REGIONAL WATER PLAN

B.1 Public Welfare Clause

In 1982 the United States Supreme Court made “public welfare” and “conservation” consideration critical to New Mexico water law when in Sporhase v. Nebraska the Supreme Court approved of these criteria as legitimate factors in a stat’s efforts to effect inter-state waters. The “public welfare” or “public interest” factor previously had played an incidental role in the law governing the appropriate and apportionment of New Mexico water. The State Engineer had ignored administratively that incidental role. However, with Sporhase and the subsequent quick New Mexico Federal Court rulings in 1983 in El Paso I and in 1984 in El Paso II, the New Mexico State Legislature in 1985 added the “public welfare” criteria to almost all statutes dealing with the allocation of New Mexico water.

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5 For example, N. Mex. Stat. Ann. 72-1-9 (Municipal and County Water Development Plan); 72-12-3(E) (Governing the Application for New Appropriation of Ground Water).
As a result, since 1985 if not before, the appropriate of unappropriated water to beneficial use is governed by, among other things, the “public welfare” factor. Additionally, the transfer of existing rights from one place to another and from one use to another is subject to “public welfare” considerations. The State Engineer, who under N.M. Stat. Ann. 72-2-9, is charged with the supervision of the allocation of New Mexico water, must consider the “public welfare” in that allocation of water. Finally, any water plan, must be governed by and limited to the “public welfare”.

B.2 Defining Public Welfare

Despite the now universal “public welfare” criteria, however, no one has said with any certainty what factors legitimately go into the “public welfare” consideration. Neither the Supreme Court in Sporhase nor the United States District Court in El Paso I and II defined the term. Thereafter, the legislature incorporated the magic word in state water law without further defining its legislative intent in adopting the term. As a result, the grant of power and the limitation will have to be spelled out in future court cases, administrative rulings, and legislative enactments. However, the outlines of and limitations on the new “public welfare” factor can be described.

From the narrowest perspective, “public welfare” considerations in the allocation of New Mexico water could mean nothing different from the considerations now embodied in the State Engineer’s interpretation of water law. That is, so long as the public water of New Mexico is put to any maximum beneficial use while existing rights to water are not impaired, then the “public welfare” in water is best met and completely served without further “public” efforts to define “public welfare”.

The State Engineer’s legal division now espouses this narrow definition of “public welfare”. Adoption of it would ratify the State Engineer’s view of the narrow factors which he may take into account either in considering whether to allow a new appropriation of water or in considering whether a transfer of existing rights would impair other rights. Adoption of that narrow definition of “public welfare” would, of course, leave regional planners with almost no public input in the choice of how to allocate scarce water.

On the other hand, adoption of the broadest definition of “public welfare” would allow regional planners a much fuller range of resource allocation choices when it comes to water. In the name of the “public welfare” regional planners could make any water choices—specifying in-house domestic use, protecting locally defined pumping levels, limiting the transfer of existing rights from one use to another—so long as those regulations did not violate state or federal constitutional limitations on governmental

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10 N.M. Stat. Ann. 75-5-23-, -24 (surface water); 72-12-3(E) (ground water).
11 ibid., N.M. Stat. Ann. 72-12-7(B) (ground water).
12 OP. Cit Ch. 182, Laws 1987 Sec. 2(C)(6).
action. For example, Rio Arriba County in northern New Mexico, using its comprehensive zoning powers, recently adopted a regulation virtually prohibiting the transfer of water rights from agricultural to recreational and sub-division users.\(^{14}\)

That ordinance prompted an immediate legal challenge from Rio Arriba County owners of agricultural water rights and the basis of that challenge suggests a possible fundamental limitation on the regulatory authority conferred by a broad reading of the “public welfare” power; public regulation of private water rights by local bodies in the name of the “public interest” may not amount to a “taking” of that private water right without just compensation.\(^{15}\)

**B.3 Regulatory Takings & Other Legal Considerations**

The law of public “regulatory” takings is in particular flux now: the developing law in the area has never been applied directly to the peculiar kind of “property” represented by a New Mexico water right.\(^{16}\) It’s anybody’s guess at this point when a regulation in the name of the “public welfare”, such as the recent Rio Arriba County one, would so infringe on the investment-backed expectations of the private water rights owner as to become a “regulatory” taking and thus prohibited.

Recent developments in California law add a final twist to constitutional limitations on “public welfare” regulation of water rights. Using the “public trust” doctrine, California courts recently upheld a prohibition against a holder of existing water rights (the city of Las Angeles) exercising those rights in such a way as to lower the level of a lake in which the public had an interest. In effect, the so-called Mono Lake Decision set the limited number of values embodied in the “public trust” above the water rights perfected under the doctrine of prior appropriation. No exercise of those “public trust” functions can amount to a taking of an acquired right under the doctrine of prior appropriation because all appropriative rights are subject to the superior discharge of such “public trust” as maintaining minimum water levels in California lakes.\(^{17}\)

In California, the “public trust” overlay may not apply to water rights acquired during the periods of Spanish and Mexican sovereignty because the state was required to present that interest to the body that adjudicated those rights arising under the United States’ antecedent sovereigns. Because water rights arising under New Mexico’s antecedent sovereigns have never been subjected to such comprehensive and preclusive adjudication,

Coalition for the Preservation of Private property Rights v. Board of County Commissioners No. RA 1442(C) and 319(c). See Miller “Existing and Proposed Authority for Land use Regulation for the Preservation of Agricultural Lands” 3 N.M. Nat. Res. J. Rptr. 53 (1988).

15 Coalition, ibid. the District Court dismissed the taxpayer’s challenge to the regulation and the Court of Appeals dismissed their appeal for lack of prosecution in the Appellate Court.

16 Penn. Central v. City of New York (regulatory takings); First Lutheran Church (trespass takings).

There would be no similar problem with applying the “public trust” to water rights here.\textsuperscript{18}

Besides California and perhaps Idaho, no prior appropriation state has recognized that California version of the “public trust” doctrine.\textsuperscript{19} New Mexico certainly has not. But if a planning body’s “public welfare” regulations amount to the discharge of a recognized “public trust”, then even a regulation that “takes” acquired rights under the doctrine of prior appropriation will be valid.

\textbf{B.4 Public Welfare Conclusions}

Thus the addition of the “public welfare” criteria of New Mexico water law creates vast new possibilities for the regulation of the acquisition and transfer of water rights. Those possibilities may or may not be exercised by the county or any other public body. If they are exercised, it is not clear how far the administrators or courts will allow those regulations to intrude into a regulatory scheme that heretofore has restricted itself to maximizing beneficial use of unappropriated water and minimizing impairment to existing rights. The limits of the new “public welfare” criteria must be tested by creative rule making and the subsequent decisions of the courts.

\textbf{B.5 Conservation Clause}

Similarly, the parallel addition of “conservation” to New Mexico water law legislation owed more to the United States Supreme Court’s phraseology than it did to any concern for local water law. Despite its apparent straight-forward meaning, “conservation” creates as many ambiguities in New Mexico water law as “public welfare” does and, as a result, makes unclear the extent to which the county can act under the grant of power and limitations that the term embodies.

\textbf{B.6 Defining Conservation}

At the simplest level, of course, the grant of authority to consider “conservation” of water in planning suggests a concern with those regulations that would encourage the most effective use of water and that simultaneously would eliminate unnecessary water use. Practical examples of municipal regulations that would achieve these results include building codes that require installation of low water use toilets and shower heads. Practical examples of agricultural zoning regulations that would seek the same end include a requirement of ditch lining to save water carriage losses from points of diversion to places of use.\textsuperscript{20}


\textsuperscript{19} Kootenai Env. Alliance v. Panhandle Yacht Club 671P.2D 1085 (Idaho, 1983).

\textsuperscript{20} On a regional scale such conservation methods promise very little saved water, int. Peter Balleau, Groundwater Hydrologist.
B.7 Conservation Clause Problems

Even these common sense “Conservation” methods, however, raise real problems under other parts of New Mexico water law. For one, New Mexico water law already maximizes “conservation” of a water right by refusing to recognize “waste” of water as a beneficial use. In addition, by restricting the heart of that right to its essential “consumptive use”, existing New Mexico water law tries to leave no room in a New Mexico water right for “saving” through “conservation”. In other words, the prohibition against “waste” and the emphasis on “consumptive use” already aim at making a New Mexico water right as lean as possible. There would be correspondingly less room to adopt new local “conservation” regulations.

From a slightly different perspective, it is unclear to whom the benefits of “conservation”, in the sense of savings gained by more efficient use, would run. Traditionally, the difference between water taken (“diversion”) and water used (“consumptive use”) have been returned to the public waters of the state (“return flows”) to be used as part of the right of existing appropriators or for new appropriations. In either case, a New Mexico water rights holder who instituted conservation methods would not necessarily get the benefits of such saving nor would the members of a public entity which adopted mandatory “conservation” regulations.21

B.8 Conservation Clause Conclusions

In any case, “conservation” is primarily aimed at protecting a limited resource for the future. Without using the term, much of existing New Mexico water law already is directed at this end and it is unclear how far local regulation could intrude on the balances already struck by existing law. For example, recent amendments to state law allow municipalities to appropriate water for anticipated needs up to 40 years in the future without fear of forfeiting the right so acquired for failure to apply to water to beneficial use. The statute thus allows municipalities to “conserve” sufficient water to cover projected needs for a reasonable time. State Engineer administrative policies have accomplished the same result for industrial and development purposes.22

As with the “public welfare” criteria, in adopting “conservation” based water regulations, local planning bodies must make themselves aware of the limits of “conservation” in the New Mexico system of prior appropriation as well as the extent to which existing state law already has occupied the field under a different name.

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21 See Dumars and Minnis, op cit.
22 E.G. N.M. Stat. Ann. 72-5-28(C) and 72-12-8(F).
B.9 Summary

Given these ambiguities and uncertainties in the permissible range of water rights regulation, the county should use the new “public welfare” and “conservation” criteria as the basis for local variations at the same time recognizing that such variations may well draw lawsuits requesting that such variations may well draw lawsuits requesting further judicial definitions of the term.

C. THE EFFECT OF FEDERAL LAW

State water rights are themselves always subject to over-riding inter-state apportionments of water by inter-state compact or Supreme Court decree.23 In addition, federal claims to water itself can override state-created rights under certain circumstances.

C.1 Supreme Court Decree, Arizona vs. California

In Catron County, the United States Supreme Court apportioned the water of the Gila-San Francisco stream system in 1963. The decree essentially limited New Mexico stream depletions to specific amounts of water in specific places. The limitations imposed by the terms of the decree restrict many of the opportunities that might otherwise be available under New Mexico law for stream development. (The effect of the decree on the opportunities and constraints for water planning in the Gila-San Francisco system are specifically considered in the Gila-San Francisco section of his report). Federal input, whether by way of supplemental inter-state compact or amended Supreme Court decree, is prerequisite to changing the limitations imposed by the decree. Neither possibility is at all promising.24

C.2 Central Arizona Project

In addition, the same complex federal process which produced the limitations imposed the Arizona v. California decree also produced the single most obvious source of additional unappropriated water available for new uses in the study area: the 18,000 acre feet per year authorized by the 1968 Colorado River Basin project Act for New Mexico’s future use.25

Southern county residents should be entirely familiar with the problems that have plagued the Upper Gila Water Supply Project (UGWSP) and its link to the Central Arizona Project (CAP). Here it is important to recognize several aspects of the limitations of the use of this additional water for new uses in New Mexico. First, the additional water apportioned to New Mexico by the acts must come from the upper Gila River. It offers the only

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possibility of increasing the depletions set by Arizona v. California on the Gila-San Francisco stream system. However, neither the Supreme Court decree, the Colorado River Basin Act, the UGWSP or CAP requires that new water to be used in the Gila-San Francisco basin. The new water could be used anywhere New Mexico officials could afford to get it. Furthermore, while the CAP Act refers to the “Hooker dam and reservoir” as the principal means for capturing the 18,000 additional acre feet, the act also specifically authorizes any other “suitable alternative” for capturing the additional water. That general term encompasses the Conner Dam Site, most of the other proposals for storage and transportation facilities, and even the possibility of supplementing individual domestic wells in the Gila-San Francisco basin with more water than is currently allowed under state law. (See Section IV B below).

However, two general limitations on the use of UGWS/CAP water should be noted. First, because the 18,000 acre feet of Gila-San Francisco water reserved for future uses in New Mexico is to be replaced by CAP water, its use will come at a CAP price no matter how the offset water is stored or transferred and at what cost. As a result, the “new” water will bear its own project cost plus the replacement CAP costs and will be expensive, perhaps too expensive for the proposed use to bear.26

In addition, the “new” uses in New Mexico would still be subject to downstream shortages by senior appropriators in Arizona. The oldest and most extensive downstream rights belong to Arizona Indian tribes and, in effect, those tribes may still possess under UGWS/CAP a priority-based veto of whatever new depletions of Gila-San Francisco water that the federal legislation authorized. While it may be possible to supply some or all of those senior rights with CAP water, that would still be an expensive alternative.27

C.3 Effects of United States vs. New Mexico

Federal law may also influence the state-law based opportunities and constraints in the direct claim for water made by instrumentalities of the federal government. The 1979 case of United States v. New Mexico explicitly laid to rest large claims to federal reserved rights on those portions of national forest lands in the Mimbres Basin.28

C.4 Other Effects of Federal Laws & Regulations

But that still leaves federal claims to water that might arise as a result of wilderness designation of portions of the Gila National Forest. The cases deciding whether wilderness designation impliedly reserved any water for federal use are split.29 But if

26 See 43 U.S.C. 1524(F)(1) which authorized new consumptive use in exchange for replacement water from CAP, charging the new use with the CAP replacement cost.
27 ibid.
Wilderness designation does imply the reservation of water for wilderness use as a recent Colorado Federal District Court opinion implies, then the Gila wilderness will qualify. Note, however, that even federal reserved rights date from the time of the land designation, attach only to water that is unappropriated at the time of the land reservation, and bear that junior priority in relation to other senior users under state law. Note also that wilderness rights would project that status of existing uses in the wilderness areas, but would not be expected to involve any large new consumptive use.

Planners should also recognize the alleged federal power to pre-empt state water law whenever the federal government chooses to do so and to provide for designated federal uses, independent of state law, whatever available water is necessary for federal purposes.\textsuperscript{30} To date the federal government has not exercised this alleged power; no court has approved its use. But to the extent that the federal assertion is valid and exercised, it could reduce the amount of water available to the planning area under state law.

Besides federal claims to water itself, the federal government may also begin to assert a regulatory interest in New Mexico water use which may effect the opportunities and constraints on the use and transfer of water in the study area. First, the federal government has expressed interest in treating return flows from surface water irrigation, which sometimes contain chemical residues from farming pesticides and other soil treatments, as point discharges to surface water sources covered by the clean water act.\textsuperscript{31} If the federal government extended its regulatory authority in this way, the existing New Mexico law on return flows might be effected and in a way which would effect the option open to the county. Similarly, the 1988 well-head protection amendments to the Federal Safe Drinking Water Act may effect the costs and economical pumping depths of municipal wells producing public supply water.\textsuperscript{32}

\section*{D. STATE LAW OPPORTUNITIES & CONSTRAINTS:}

\subsection*{D.1 Gila/San Francisco Existing Surface Water Rights}

Arizona v. California limits the ability of New Mexico water users to deplete the surface flows of the Gila/San Francisco beyond set limits based on established, defined uses. The decree does so by incorporating the old 1935 Globe equity decree for the lower sections of the stream system in the Virden Valley area and by adjudicating for the first time all other recognized surface water rights in the stream system as of 1963. (Curiously, the portions of the Globe Equity Decree incorporated on the later Arizona v. California Decree adjudicate to Virden Valley water users a duty of 6 acre feet per acre of irrigated land while the rest of the Gila/San Francisco rights adjudicated have a duty of only 3 acre feet per acre). The encompassing 1963 decree was entered in a original jurisdiction United States Supreme Court action between all the member states of the lower Colorado

\textsuperscript{31} 33 U.S.C.A. Sec. 1311, 1344 and 1362.
\textsuperscript{32} 33 U.S.C.A. Sec. 1288.
As an adjudication of the surface water rights of the Gila/San Francisco stream system, the Arizona v. California decree fixes the place of use of each recognized right to deplete the stream system waters. However, the decree does not limit the recognized rights to the agricultural uses on which they are based. As a result, agricultural rights recognized in the decree can be transferred to other purposes, such as domestic, municipal, or recreational uses, so long as other existing rights are not impaired by the transfer of the purpose of use and so long as there are not increased depletions of the stream system.

The first constraint on changing the purpose of use of a surface water agricultural right recognized in the Arizona v. California decree—non-impairment to other rights—comes from New Mexico law. The second constraint—no increased stream system depletion comes from both state and federal law. That federal law addition also limits the place to which a recognized Gila/San Francisco right may be transferred.

Under purely New Mexico law, both the purpose and the place of a water right may be changed so long as neither change impairs other rights. While the Arizona v. California decree does not limit changes in the purpose of use of rights, it does limit changes in the place of use beyond what state law might allow. The decree establishes eight sub-regions within the Gila/San Francisco drainage basin in New Mexico. (From north to south the “areas” are: Apache Creek-Aragon; Luna; Reserve; Upper Gila; Glenwood-Mule Creek’ Cliff-Gila-Buckhorn-Duck Creek; Redrock; and Virden). Consumptive uses specified in Arizona v. California are tied to these sub-regions.

While transfers of the uses specified are permitted, the decree may prohibit the transfer of a consumptive use from one sub-region to another. For a short time, the State Engineer’s office permitted such inter-region transfer of consumptive uses recognized in the 1963 Arizona v. California decree. Presently the office does not allow such transfers.

Therefore, the market for decree recognized surface water rights in the Gila/San Francisco basin exists but is severely restricted. Obviously, surface water of the Gila/San Francisco are fully spoken for and, except for the 18,000 acre feet of new water authorized by the UGWSP, no new uses can be made of the surface water of the stream system.

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34 N.M. State. Ann. 75-5-24 (Surface Water); 72-12-7 (Ground Water).
35 ibid.
D.2 Gila/San Francisco Groundwater Rights

The decree in Arizona v. California dealt only with surface water rights in the Gila/San Francisco basin. However, the decree limited the extent to which uses in New Mexico could deplete the surface waters of the basin stream system. A use of groundwater which affects the surface water flow falls under the decree’s prohibition against further New Mexico depletion of the stream system than that authorized in the decree. That surface water prohibition limits the nature and extent of development of new groundwater in the Gila/San Francisco basin. Thus new rights to groundwater are limited to those uses which do not further deplete the surface water stream system.

There are two obvious ways to increase groundwater use in the Gila/San Francisco basin without further depletion the basin’s streams and both have been used in the area. First, new groundwater uses which ultimately consume no water are allowed because so long as no water is consumed, there can be no further prohibited depletion of the stream. For this reason, the State Engineer continues to permit new domestic wells but restricts water rights to in-house use on the theory that such in-house uses consume no water.

Besides non-consumptive domestic groundwater uses in the Gila/San Francisco basin, the other clear opportunity for new groundwater use comes from groundwater whose diversion and consumption will not effect surface water flows. A groundwater diversion from an aquifer not hydrologically connected at all to the Gila/San Francisco stream system would not involve the limitations imposed by the Arizona v. California decree. Such a new groundwater appropriation would be governed exclusively by New Mexico law which would allow its appropriation for beneficial use so long as the new appropriation met the standard tests. (There is unappropriated groundwater; no impairment would result from its appropriation; allowing the appropriation would promote the public welfare and conservation of water within the state). New appropriations from such “confined” aquifers could be subject to mutual requirements of “reasonable” use and conditions designed to prevent impairment.

Unfortunately in the Gila/San Francisco basin little is known about the aquifers above and beyond the shallow alluviums along the streams themselves. While large amounts of confined groundwater may lie waiting within the basin, little has been developed, reflecting perhaps the relatively higher costs of developing it, and the prohibitive costs in transporting it to a realistic place of use. In any case, “confined” groundwater represents one opportunity for future needs not subject to the surface water limitations imposed by the Arizona v. California decree.

37 City of Albuquerque v. Reynolds 71 N.M. 428, 379 P.2D 73 (1962). As currently administered, the State Engineer office treats the Arizona v. California decree as prohibiting all new consumptive uses in the stream basin, whether stream connected or not. Interviews, Bob Rodgers, District Director, Deming Office, SEO.
39 ibid.
40 See Note 37 above.
“Confined” groundwater that is hydrologically connected to the Gila/San Francisco stream system is not necessarily unavailable for new appropriation for future use in the basin. Thus far most groundwater development in the basin has occurred in the shallow alluvium near the streams themselves. The effect of pumping groundwater wells in the shallow alluvium is transmitted very quickly and almost completely to the surface water flows of the stream system. Because of the constraints imposed on further depletion of the Gila/San Francisco surface flows by Arizona v. California, this groundwater pumping can continue only so long as an amount of land irrigated from the surface water source is retired to off-set the effect of the groundwater development.43

In stream-connected aquifers farther removed from the surface flows of the Gila/San Francisco, the effects of pumping groundwater may not reach the rivers as quickly and completely. During the time before the effects reach the rivers, the groundwater may be safely removed without implicating the prohibitions against further river depletions in Arizona v. California. This groundwater “in storage” represents uncommitted water available for a time for future use in the stream system. In 1986, the Interstate Stream Commission studied options of this type using the Gila basin groundwater model.44

In any case, the State Engineer has assumed jurisdiction over groundwater in the Gila/San Francisco basin. All new development of groundwater in the 5,659 square miles of the basin must be submitted to him for a permit based on his findings that the new groundwater development will promote the public welfare and conservation of water as well as no impairing existing rights to either surface or groundwater.

To date and in contrast to the Mimbres underground basin, the State Engineer has issued no formal administrative policy governing groundwater appropriations within the Gila/San Francisco basin. However, recent developments in state law have created a limited preference for municipal use of water (see “conservation” discussion above) and this preference would be reflected in the State Engineer administration of groundwater in the basin. Administrative definition of “impairment” constrains them both.

D.3 Open Groundwater Basin

In the northwestern portion of Catron County, there is the only open basin in the county that still lies outside of groundwater basins declared by the State Engineer. In this area, no permit is required from the State Engineer in order to appropriate groundwater; he has no subject matter jurisdiction over whatever groundwater resources the area may contain so long as the water is for use in state. If the water is to be exported out of state, then the

43 City of Albuquerque v. Reynolds, op cit.
44 Memorandum from John Whipple, Staff Engineer, ISC and Bill Fleming, Chief, Hydrology Section, State Engineer office to S.E. Reynolds, State Engineer, Red: Evaluation of Groundwater Pumping Alternatives for Developing a Water Supply from the Gila River Basin, April 2, 1986.
State Engineer’s jurisdiction attaches even if the appropriation is outside a declared basin.\textsuperscript{45}

However, groundwater underlying this undeclared region is still public water and subject to the general doctrine of prior appropriation. Private parties may obtain rights to it only by developing the water and applying it to beneficial use. Public municipalities and counties presumably might acquire rights to it now and postpone the application of it to beneficial use for up to the forty year planning period authorized by state statute provided that the municipality can demonstrate a projected need the water.

**E. LOCAL GOVERNMENT CONTROL OVER WATER RESOURCES**

**E.1 State Subdivisions with Direct Surface Water Control**

Through the 19\textsuperscript{th} century, community irrigation ditches provided the only sanctioned public means for collectively organizing and distributing surface water. State law continues to recognize those community ditches as political subdivisions of the state.\textsuperscript{47} Those ditches are sufficiently public to resist the condemnation powers of such a more broadly based governmental entity as a city.\textsuperscript{47} To those ancient institutions New Mexico law has added in the 20\textsuperscript{th} century: drainage districts, irrigation districts, conservancy districts, soil and water/watershed conservation districts, water and sanitary districts, irrigation districts created to cooperate with federal reclamation projects and electrical irrigation districts.\textsuperscript{48} To compare and contrast the statutory organization of each entity would over-tax this paper.

However, some sense of the range of powers of these special purpose governmental entities can be gained by comparing the least powerful—community ditches—with the most powerful conservancy districts in general and the middle Rio Grande conservancy district in particular. In community ditches, the organization own no water rights, the individual members own them all, and those individual rights are subject to loss for forfeiture or abandonment as well as sale and transfer of the community ditch.\textsuperscript{49} Conservancy districts enjoy a general grant of power to the limits of delegable legislative power to put the water in the district to a “greater, better, or more convenient use”. The statutes and case law restrict the power of community irrigation districts much more severely.

\textsuperscript{45} \textit{N.M. Stat. Ann.} 72-2-20. If the water is to be exported out of state, then a permit must be secured even if the point of diversion is outside a declared basin.

\textsuperscript{46} \textit{N.M. Stat. Ann.} 73-2-1 et. Seq. Compare a 73-3-11 for special exemptions in certain counties.

\textsuperscript{47} \textit{City of Albuquerque v. Garcia} 17 N.M. 445 (1913). Compare conservancy districts which by statute have a “dominant right of eminent domain” and can take acequias either through a specific procedure provided in their statutes or by using the eminent domain statute.

\textsuperscript{48} See the excellent summary of water-control institutions in Crossland, “Acequia Rights in Law and Tradition” State Engineer office, Santa Fe.

Similarly, with respect to money raising powers, community ditches and conservancy districts are completely different. Community ditches can neither tax nor issue bonds although recent amendments allow ditches to incur long-term debt for construction.\textsuperscript{50} Conservancy districts can issue conservancy bonds and levy taxes. The district itself is tax-exempt.\textsuperscript{51}

Finally, with respect to democratic control, community ditches are governed by bodies elected by votes that are proportional to the land owner’s holdings. In conservancy districts, users are designated by class depending on use but all vote equally irrespective of the size of their interest.\textsuperscript{52} Thus, in general, conservancy districts promise the greatest local control over local irrigation institutions while community ditches offer the least.

\subsection*{E.2 State Subdivisions with Direct Groundwater Control}

State statutes created two local entities with direct local power over groundwater. One or the two—artesian conservancy districts—applies primarily in the Roswell area and probably has no hydrologic application in the study area.\textsuperscript{53} The other institution—the mutual domestic water association—enjoys widespread use, particularly in rural areas. Such associations generally merely hold a common groundwater well and provide for the distribution of commonly held water to individual members. No special powers attach to the operation.

\subsection*{E.3 Local Governments General Power Over Water Planning}

New Mexico municipalities and counties have each been delegated land use planning authority for lands within their jurisdiction.\textsuperscript{54} This grant of regulatory authority extends specifically to reasonable planning for and regulation of water within the local government jurisdiction.\textsuperscript{55} Under this grant the local bodies supplant state law but they may supplement it. In particular, the statute authorizes to fill in the gaps in the definition of “public welfare” that other statutes now refer to. Grant County and Rio Arriba county have adopted county water plans that regulate local water use. In the case of Rio Arriba County, the county defined local public interest as preventing further transfers of water from agricultural to sub-division uses. The regulation has survived court challenges.\textsuperscript{56}

\textsuperscript{50} Community ditches may assess their members but cannot tax them more directly.
\textsuperscript{51} \textit{N.M. Stat. Ann.} 73-16-1 et. Seq.
\textsuperscript{52} \textit{N.M. Stat. Ann.} 73-14-62 FF.
\textsupers{53} \textit{N.M. Stat. Ann.} 73-1-1 et. Seq.
\textsuperscript{54} \textit{N.M. Stat. Ann.} 32.19.1, 47-6-9 (11).
\textsuperscript{56} interview, Anita Miller, Albuquerque, New Mexico.
Appendix 2

Appendices of the Southwest Regional Water Plan
That Apply to Catron County

The Southwest Regional Water Plan Appendices can be obtained upon request (for a fee).
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