

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT FOR THE
PROPOSED TRINIDAD LAKE MASTER PLAN 2023
PURGATOIRE RIVER BASIN
LAS ANIMAS COUNTY, COLORADO

The U.S. Army Corps of Engineers (USACE) Engineering Regulation (ER) 1130-2-550 Change 07, dated 30 January 2013 and Engineering Pamphlet (EP) 1130-2-550 Change 05, dated 30 January 2013, require Master Plans for the USACE water resources development projects having a federally owned land base. The proposed revision of the 1975 Trinidad Lake Master Plan is being conducted pursuant to this ER and EP and is necessary to bring it up to date to reflect current ecological, socio-demographic, and outdoor recreation trends that are affecting the lake, as well as those anticipated to occur within the planning period of 2023 to 2048.

In accordance with the National Environmental Policy Act of 1969, as amended, including guidelines in 33 Code of Federal Regulations (CFR), Part 230 and 40 CFR Parts 1500-1508, the U.S. Army Corps of Engineers, Albuquerque District has conducted an environmental analysis on the draft Trinidad Lake Master Plan 2023. The draft Trinidad Lake Master Plan 2023 addresses the need for an updated comprehensive land management document for Trinidad Lake in Las Animas County, Colorado. The final recommendation will be contained in the Trinidad Lake Master Plan 2023.

The revision of the 1975 Trinidad Lake Master Plan (hereafter Plan or Master Plan) is a framework built collaboratively to serve as a guide toward appropriate stewardship of USACE administered resources at Trinidad Lake over the next 25 years.

The Environmental Assessment (EA) for the draft Trinidad Lake Master Plan 2023 evaluated an alternative that would revise the 1975 Trinidad Lake Master Plan to meet current policy, and its assessment of impacts are summarized in Table 1 and the EA are included as reference.

In addition to a “no action” plan, one alternative that fully meets the project purpose was evaluated (proposed action/plan). Section 2.0 of the draft Trinidad Lake Master Plan EA discusses the alternative formulation and selection as well the summary of the new goals and objectives. Section 8, Tables 8-1, and 8-2 of the Master Plan summarizes the changes to the land classifications. The proposed plan includes coordination with the public, updates to comply with the USACE regulations and guidance, and reflects changes in land management and land uses that have occurred since 1975. Land classifications were refined to meet authorized project purposes and current resource objectives that address a mix of natural resources and recreation management objectives that are compatible with regional goals, recognize outdoor recreation trends, and are responsive to public comments.

Table 1: Summary of Potential Effects of the Proposed Plan

Resource	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquatic resources/wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Invasive species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fish and wildlife habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Threatened/Endangered species/critical habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic properties	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other cultural resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floodplains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous, toxic & radioactive waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socioeconomics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All practicable and appropriate means to avoid or minimize adverse environmental effects have been analyzed and incorporated into the proposed plan. The proposed plan will not entail any ground-disturbing activities. Future ground-disturbing activities on USACE property will be subject to all necessary environmental evaluations and compliance regulations.

No compensatory mitigation is required as part of the proposed plan.

Public review of the draft Master Plan, Environmental Assessment, and Finding of No Significant Impact (FONSI) will be completed on June 22, 2023. All comments submitted during the public review period will be responded to in the final Master Plan.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers has determined that the proposed plan will have no effect on federally listed species or their designated critical habitat.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers has determined that the proposed plan will have no effect on historic properties.

All applicable environmental laws were considered and coordination with appropriate agencies and officials has been completed.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the draft report, the reviews by other Federal, State, and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the proposed plan would not cause significant adverse impacts on the quality of the human environment, therefore, preparation of an Environmental Impact Statement is not required.

Date	Jerre V. Hansbrough
	Lt. Colonel, U.S. Army
	Commanding



DRAFT TRINIDAD LAKE MASTER PLAN

Purgatoire River
Basin - Arkansas
River Tributary

Las Animas
County, Colorado

June 2023

TRINIDAD LAKE VISION

“The land, water, and recreational resources of Trinidad Lake are managed to protect, conserve, and sustain natural and cultural resources, especially environmentally sensitive resources, and provide outdoor recreation opportunities that complement overall project purposes for the benefit of present and future generations.”



**US Army Corps
of Engineers.**

Albuquerque District

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EXECUTIVE SUMMARY

Trinidad Lake Master Plan

US Army Corps of Engineers

Prepared by Albuquerque District and the Regional Planning and Environmental Center
June 2023

PURPOSE

The revision of the *Trinidad Lake Master Plan* (hereafter Plan or Master Plan) is a framework built collaboratively to serve as a guide toward appropriate stewardship of U.S. Army Corps of Engineers (USACE) administered resources at Trinidad Lake over the next 25 years. The 1975 Trinidad Lake Master Plan (Design Memorandum (DM) No. 13) served well past its intended 25-year planning horizon. The Master Plan is primarily a land use and outdoor recreation strategic plan. The lake and dam's primary purposes are flood risk management, irrigation, recreation, and fish and wildlife enhancement.

The 1975 Master Plan classified a total of 3,542 acres of USACE fee land, with a permanent pool at elevation 6,142.8 feet, (NGVD 29) of approximately 213 surface acres. Due to land changes from erosion and sedimentation, as well as more advanced measurement technology, these numbers have changed slightly¹. Current calculations indicate that Trinidad Lake encompasses approximately 2,732 acres of fee-owned land, which includes approximately 633 acres of water surface. Built in the 1960's under the authority of the 1958 Flood Control Act, Trinidad Lake provides irrigation water for the Purgatoire River Water Conservancy District, and flood mitigation for the areas below the dam such as Trinidad, Colorado. This master plan revision and supporting documentation provides an inventory, analysis, goals, objectives, and recommendations for USACE lands and the water surface at Trinidad Lake, Colorado.

PUBLIC INPUT

Trinidad Lake is a federally owned and managed public property, and it is USACE's goal to be a good neighbor, as well as steward for public interest as it concerns Trinidad Lake. As such, USACE is bound to the equal enforcement of policies and fees for this publicly held national asset and must balance the needs of the recreating public with the needs of Trinidad Lake's operations and natural resources.

Public and agency input toward the Master Plan was obtained to ensure a balance between operational, environmental, and recreational outcomes. An Environmental Assessment (EA) was completed in conjunction with the Master Plan revision to evaluate the impacts of alternatives. The EA is included in Appendix B.

¹These figures are for planning purposes only and differ slightly from the official real estate records.

A face-to-face public meeting was held for Trinidad Lake on August 18th, 2022. After this meeting a 30-day comment period opened until September 17th, 2022. The presentation included a description and definition of a master plan, descriptions of the new land use classification options, and instructions for commenting on the Master Plan revision. USACE received 13 comments from ten (10) individuals for Trinidad Lake. Public comments included those related to hike and bike trails, improved facilities, roads, more recreation opportunities, and water quality and supply. All public comments received were noted and will be addressed as future funds and development are considered (see Chapter 7 for comments and USACE response).

RECOMMENDATIONS

The following land classifications changes (detailed in Chapter 8, Table 8.2) resulted from the inventory, analysis, and synthesis of data, documents, and public and agency input. In general, fee and conservation pool acreage changes were due in part to siltation and improvements in measurement technology including Geographic Information System (GIS) technology, resulting in better definition of the fee boundary. GIS software allows for more finely tuned measurements and thus acreages may vary from official land acquisition records.

Table ES.1 Proposed Land Use Acreage Changes

1975 Land Class	1975 Acres¹	2023 Land Class	2023 Acres
Project Operation	422	Project Operations	131
Operations: Recreation - Intensive Use	561	High Density Recreation	449
-	-	Environmentally Sensitive Areas	14
Not Classified	984	-	-
Operations: Recreation - Low Density Use	516	Multiple-Resource Management Lands-Low Density Recreation	537
Operations: Wildlife Management	952	Multiple-Resource Management Lands-Wildlife Management	1,601
Total Land Acres	2,732	Total Land Acres	2,732
<i>Water Surface</i>	213	<i>Water Surface²</i>	
-	-	Open Recreation	627
-	-	Restricted	3
-	-	No Wake	3
Total Water Surface Acres²	633	Total Water Surface Acres²	633
Total Fee	3,365	Total Fee	3,365
Flowage Easement	302	Flowage Easement	302

1. Acreage of land areas is based on measurements using GIS technology and may vary slightly from official real estate records. Original acres as recorded in the 1975 Master Plan are 422 Project Operations, 539 Operations: Recreation – Intensive Use, 918 Operations: Wildlife Management, and 213 Water Surface, for a total of 2,608 land acres and 213 water acres.

2. Water surface based on 6,177 pool shoreline and is an estimate. Water Surface was not included in the 1975 Master Plan.

PLAN ORGANIZATION

Chapter 1 of the Master Plan presents an overall introduction of Trinidad Lake. Chapter 2 consists of an inventory and analysis of project resources. Chapters 3 and 4 lay out management goals, resource objectives, and land allocation and classification. Chapter 5 is the resource plan that identifies how project lands will be managed through a resource use plan for each land use classification. This includes current and projected park facility needs, an analysis of existing and anticipated resource use, and anticipated influences on overall project operation and management. Chapter 6 details topics that are unique to Trinidad Lake. Chapter 7 identifies the coordination efforts and stakeholder input gathered for the development of the Master Plan, and Chapter 8 gives a summary of the changes in land classification from the previous Master Plan to the present one. Finally, the appendices include information and supporting documents for this Master Plan revision, including Land Classification and Park Plate Maps (Appendix A).

An EA analyzing alternative management scenarios for Trinidad Lake has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA); regulations of the Council on Environmental Quality; and USACE

regulations, including Engineer Regulation 200-2-2: Procedures for Implementing NEPA. The EA is a separate document that informs this Master Plan and can be found in its entirety in Appendix B.

The EA evaluated two alternatives: 1) No Action Alternative, and 2) Proposed Action. The EA analyzed the potential impact the No Action Alternative and Proposed Action would have on the natural, cultural, and human environments. Because the Master Plan is conceptual, any action proposed in the plan that would result in significant disturbance to natural and cultural resources or result in significant public interest would require additional NEPA documentation at the time the action takes place.

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CHAPTER 1: INTRODUCTION

1.1. OVERVIEW

Trinidad Lake is a multipurpose water resources project constructed and operated by the U.S. Army Corps of Engineers (USACE), Albuquerque District (Figure 1.1). The lake and associated federal lands are in Las Animas County, Colorado (CO). Trinidad Dam is situated within the Purgatoire River Basin in Las Animas County. The dam and associated infrastructure, as well as all lands acquired for the Trinidad Lake project, are federally owned and administered by the USACE.

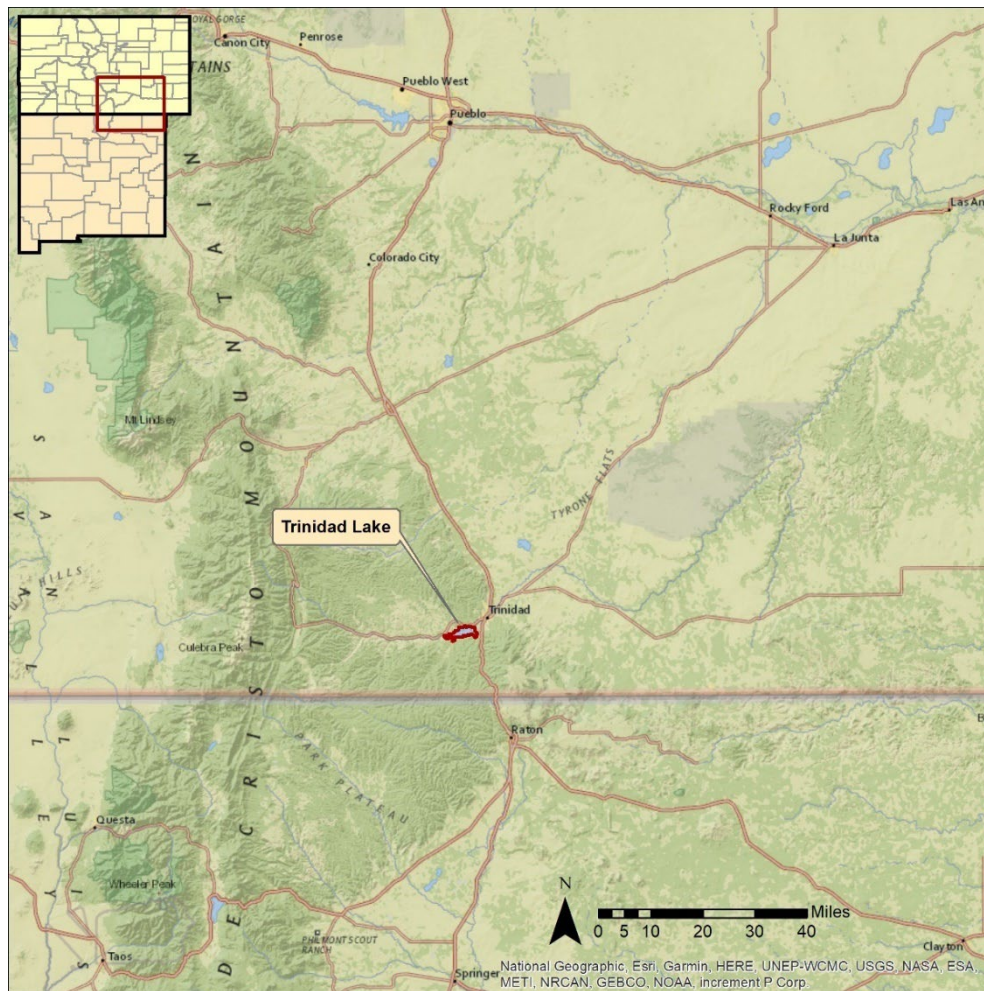


Figure 1.1 Trinidad Lake Vicinity Map

The Trinidad Lake Master Plan (hereafter Plan or Master Plan) is a revision of the 1975 Master Plan, Design Memorandum (DM) No. 13, and is intended to serve as a comprehensive land and recreation management guide with an effective life of approximately 25 years. The focus of the Plan is to guide the stewardship of natural and cultural resources and make provisions for outdoor recreation facilities and opportunities

on federal land associated with Trinidad Lake. The Plan does not address the flood risk management or water supply purposes of Trinidad Lake (the internal USACE Water Control Manual for Trinidad Lake details these project purposes).

National USACE missions associated with water resource development projects may include flood risk management, water conservation, navigation, recreation, fish and wildlife conservation, and hydroelectric power generation. Most of these missions serve to protect the built environment and natural resources of a region from the climate extremes of drought and floods. This creates a more resilient and sustainable region for the health, welfare, and energy security of its citizens. Mitigation, while not a formal mission at USACE lakes, may be implemented to achieve the fish and wildlife and recreation missions. Maintaining a healthy vegetative cover, including a tree canopy where ecologically appropriate, on Federal lands within the constraints imposed by primary project purposes helps reduce stormwater runoff and soil erosion, mitigates air pollution, and moderates the temperature. To this end, USACE has developed the following statements.

The USACE Sustainability Policy and Strategic Plan states:

“The U.S. Army Corps of Engineers strives to protect, sustain, and improve the natural and man-made environment of our Nation, and is committed to compliance with applicable environmental and energy statutes, regulations, and Executive Orders. Sustainability is not only a natural part of the Corps' decision processes; it is part of the culture.

Sustainability is an umbrella concept that encompasses energy, climate change and the environment to ensure today's actions do not negatively impact tomorrow. The Corps of Engineers is a steward for some of the Nation's most valuable natural resources and must ensure customers receive products and services that provide sustainable solutions that address short and long-term environmental, social, and economic considerations.”

The USACE mission of the Responses to Climate Change Program states:

“To develop, implement, and assess adjustments or changes in operations and decision environments to enhance resilience or reduce vulnerability of USACE projects, systems, and programs to observed or expected changes in climate.”

1.2. PROJECT PURPOSE AND AUTHORIZATION

Trinidad Lake is a multipurpose water resource project constructed and operated by USACE for the purpose of flood control, irrigation, and recreation. Environmental stewardship, though not listed as a primary project purpose, is a major responsibility and inherent mission in the administration of federally owned lands.

The Trinidad Dam project was approved by the U.S Congress under the Flood Control Act of 1958. It was amended by Section 201, Title II, of the Flood Control Act of 1965, Public Law 89-298. This amendment relieved the city of Trinidad from making a cash contribution of 4.5 percent of the first cost allocated to flood control.

The basic legislation relating to the development of reservoir areas under the control of the Department of the Army for recreational purposes is contained in Section 4 of the Flood Control Act approved 22 December 1944 (Public Law 534, 78th Congress, 2d Session) as amended by Section 207 of the Land and Water Conservation Fund Act of 1965. The amended Section 207 provides authority for the Chief of Engineers, under the supervision of the Secretary of the Army, to construct, maintain, and operate public park and recreation facilities at water resource projects under the control of the Department of the Army. Additionally, authority is provided for certain out leasing practices and conditions for public use and access."

Several laws place emphasis on environmental stewardship of Federal lands. These laws, including, but not limited to, Public Law 91-190, National Environmental Policy Act of 1969 (NEPA), and Public Law 86-717 place emphasis on the environmental stewardship of Federal lands and USACE-administered Federal lands, respectively.

1.3. MASTER PLAN PURPOSE AND SCOPE

In accordance with Engineer Regulation (ER) 1130-2-550 Change 07, dated 30 January 2013, and Engineer Pamphlet (EP) 1130-2-550 Change 05, dated 30 January 2013, Master Plans are required for most USACE water resources development projects having a federally owned land base. The revision of the Master Plan is intended to bring it up to date to reflect current ecological, socio-demographic, and outdoor recreation trends that are affecting the lake, as well as those anticipated to occur within the planning period of 2023 to 2048 (i.e., 25 years).

The Trinidad Master Plan is the strategic land use management document that guides the efficient, cost-effective, comprehensive management, development, and use of recreation, natural resources, and cultural resources throughout the life of the Trinidad Lake project. It is a vital tool for responsible stewardship and sustainability of the project's natural and cultural resources and makes provision for outdoor recreation facilities and opportunities on federal land associated with Trinidad Lake for the benefit of present and future generations. The Plan guides and articulates USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. It is a dynamic and flexible tool designed to address changing conditions. The Plan focuses on carefully crafted resource-specific goals and objectives. It ensures that equal attention is given to economy, quality, and needs in the management of Trinidad Lake resources and facilities, and that goals and objectives are accomplished at an appropriate scale and rate.

The master planning process encompasses a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and future environmental, recreational, and socioeconomic conditions and trends. With a generalized conceptual framework, the process focuses on four primary components, as follows:

- Regional and ecosystem needs
- Project resource capabilities and suitability
- Expressed public interests that are compatible with Trinidad Lake authorized purposes
- Environmental sustainability elements

It is important to note what the Master Plan does not address. As noted in Section 1.1, the Plan does not address the flood risk management or water supply purposes of Trinidad Lake. The Plan also does not address details of design, management and administration, or implementation, as these are addressed in the Trinidad Lake Operational Management Plan (OMP). In addition, the Master Plan does not address the specifics of regional water quality or shoreline management with respect to private actions conducted by adjoining landowners such as vegetation modification. The operation and maintenance of primary project operations facilities, including, but not limited to, the dam, spillway, and gate-controlled outlet, are also not included in this Plan.

The 1975 Trinidad Lake Master Plan was sufficient for prior land use planning and management. Changes in outdoor recreation trends, regional land use, population changes, current legislative requirements, and USACE management policy have occurred over the past decades. Additionally, increasing fragmentation of wildlife habitat, national policies related to land management, climate change, and growing demand for recreational access and protection of natural resources are all factors affecting Trinidad Lake and the region in general. In response to these continually evolving trends, USACE has determined that a full revision of the 1975 Plan is required as set forth in this Plan.

1.4. BRIEF PROJECT AND WATERSHED DESCRIPTION

Trinidad Lake lies in the southern section of Colorado and provides for a multi-recreational facility for populations that extends into portions of five surrounding states within a 200-mile radius. The lake is located in southwestern Las Animas County on the Purgatoire River, which feeds the Arkansas River basin. The Purgatoire River Basin includes 196 miles of river and covers a total area of 671 square miles of arid land.

The Trinidad Dam is a rolled earth-filled structure 6,610 feet long with a crest width of 24 feet and maximum height of 200 feet above the streambed. The reservoir has a service spillway and two emergency spillways that are not gated. The dam primarily serves irrigation water supply and flood control needs within the Purgatoire River Basin. The dam protects the surrounding communities, including the City of Trinidad, CO, approximately four miles downstream of Trinidad Dam.

1.5. PROJECT ACCESS

Two main roads provide access to Trinidad Lake. The first is State Highway (SH) 12, which runs east-west along the northern portion of the lake through the towns of Segundo, Valdez, and Cokedale, Colorado (CO) in Las Animas County. Highway 12 then merges with US Highway 25 in Trinidad, CO, 4 miles east of the Trinidad Lake Dam. US Highway 25 runs north-south on the east side of the lake before reaching Trinidad, CO.

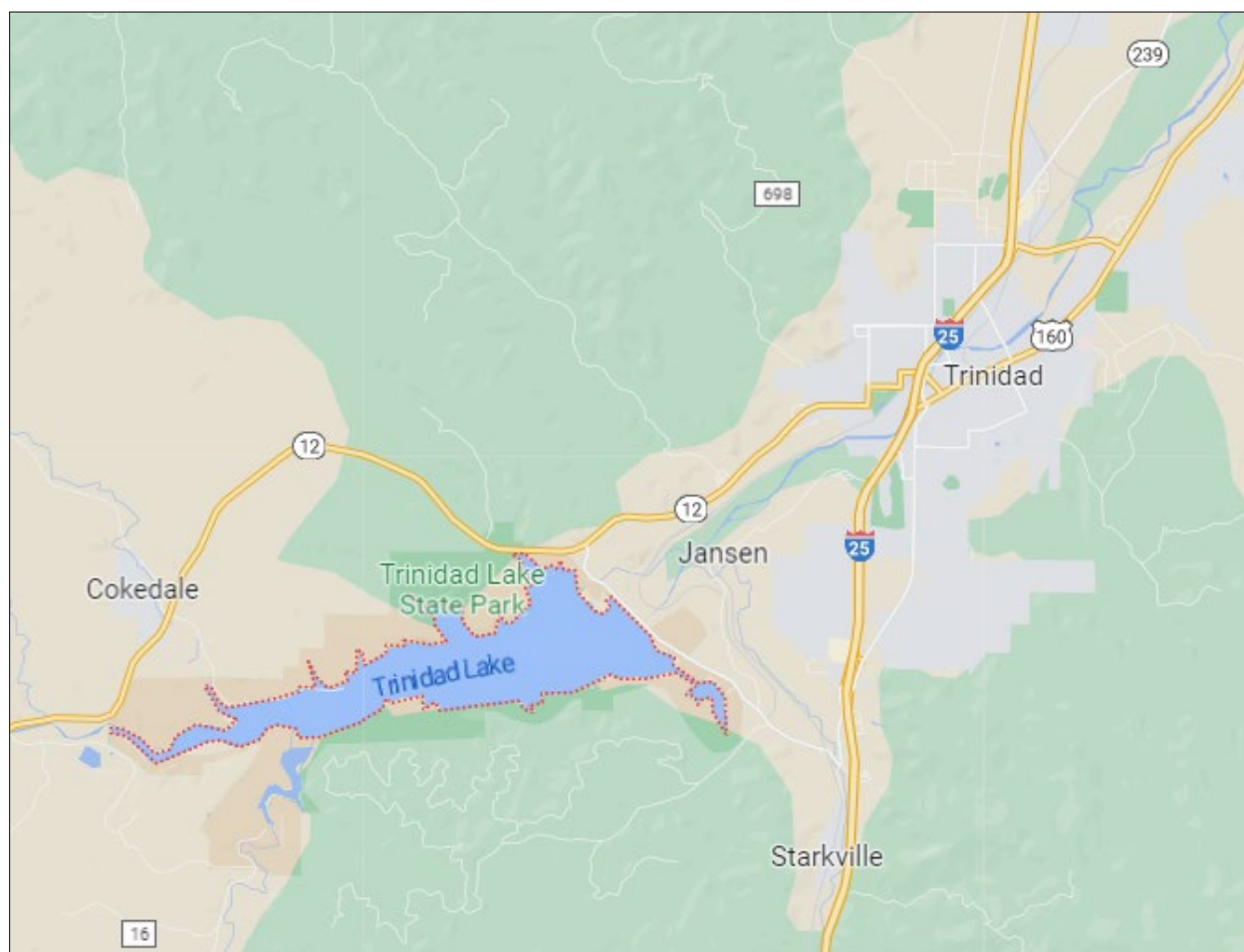


Figure 1.2 Trinidad Lake Access (Source: Google Maps 2023)

1.6. PRIOR DESIGN MEMORANDA

Design Memoranda (DM) and Project Reports approved and set forth design and development plans for all aspects of the project including the prime flood risk management facilities, real estate acquisition, road and utility relocations, reservoir clearing, and the master plan for recreation development and land management prior to 1999, when the use of DMs was terminated. DM and Project Reports were prepared for Trinidad Lake from 1935 through 1976, including the Preliminary MP (1963) and the MP (1975), setting forth design criteria for all aspects of the project, including the prime flood risk management facilities, real estate acquisition, road and utility relocations,

reservoir clearing, and the master plan for recreation development and land management. A list of the DMs for Trinidad Lake is listed in Table 1.1.

Table 1.1 Design Memoranda

Item No.	TITLE	DATE
1	Hydrology Design Memorandum (DM)	Jan 1962
2	Site Selection DM	Feb 1961
3	General DM	Jan 1963
	Supplement No. 1 to DM 3	Dec 1964
4A	Preliminary Master Plan	Apr 1963
5	Real Estate DM	Sep 1963
6	Outlet Works DM	Jun 1963
7	Embankment, Spillway and Other Facilities DM	Jun 1963
	Supplement No. 1 to DM 7 – Physical Measurement Devices	-
8	Power and Utility Lines and Highway and Road Relocation DM	Oct 1963
9	Relocation of C&W Railroad and Water Supply Lines DM	Sep 1964
10	Reservoir Clearing	Jun 1972
11	Sediment and Degradation Ranges	Jun 1971
12	Relocation of Antonio Lopez Ditch Facilities	-
13	Master Plan	Oct 1975
14	Additional Spillway	Feb 1981

1.7. PERTINENT LAWS

Numerous Public Laws (PL) apply directly or indirectly to the management of federal land at Trinidad Lake. Listed below are several key PLs that are most frequently referenced in planning and operational documents. Refer to Appendix E for a more comprehensive listing.

- Flood Control Act of 1944, Public Law 78-534: Section 4 of the Act, as amended, authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to federal, state, or local governmental agencies.
- Fish and Wildlife Coordination Act, Public Law 85-624: This Act, as amended, establishes the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife resources, and adverse effects on these resources, shall be examined along with other purposes which might be served by water resources development.
- National Historic Preservation Act of 1966, Public Law 89-665, 54 U.S.C. Sections 300101 et seq: This Act, as amended, provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states

undertaking historic and archeological resource inventories; (3) a program of grants-in-aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires the President's Advisory Council on Historic Preservation to have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.

- Public Law 86-717: This law, sometimes referred to as the Forest Protection Act, provides for the protection of forest and other vegetative cover for reservoir areas under the jurisdiction of the Secretary of the Army and the Chief of Engineers.
- Federal Water Project Recreation Act, Public Law 89-72: This Act, as amended, requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at federal reservoir projects shall be borne by a non-federal public body. A HQUSACE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.
- National Environmental Policy Act of 1969 (NEPA), Public Law 91-190, 42 U.S.C. Sections 4321 et seq.: NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a *"continuing policy of the Federal Government... to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."* Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations, and public law of the United States shall be interpreted and administered in accordance with the policies of the Act. It is Section 102 that requires consideration of environmental impacts associated with federal actions. Section 101 of NEPA requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony. Specifically, Section 101 of NEPA declares:
 - Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
 - Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
 - Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
 - 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.
 - Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.
- Native American Graves Protection and Repatriation Act, Public Law 101-601: Requires federal agencies to return Native American human remains and cultural items, including funerary objects and sacred objects, to their respective peoples.

1.8. REAL ESTATE

1.8.1 Project Land Acquisition

The Federal Government acquired the rights, fee, or easement to all land below elevation 6,263 (3 feet above the flood control pool). Land acquired for project purposes consist of 3509 acres in fee and 300 acres in flowage easement. Included in the fee-acquired lands are approximately 365 acres that are specifically designated for recreational purposes. The mapping used for this Master Plan revision uses modern satellite imagery and Geographic Information System (GIS) mapping, resulting in different acreage calculations than that of the 1975 Master Plan.

1.8.2 Outgrants

The term “outgrant” is a broad term used by USACE to describe a variety of real estate instruments wherein an interest in real property has been conveyed by USACE to another party. Outgrants at Trinidad Lake include leases, licenses, easements, consents, permits, and others. Outgrants do not include the Shoreline Use Permits that authorize private structures and activities owned or conducted by adjacent landowners such as boat docks and vegetation modification. At present, there are approximately 15 recorded outgrants in effect on USACE lands and 302 acres of flowage easement at Trinidad Lake. These outgrants include the following:

- 7 Utility Easements
- 3 Road Easements
- 1 R/R Easement
- 1 Fish/Wildlife license
- 1 Recreational/Park license
- 1 Recreational/Park lease
- 1 Storage/Office space lease

Personnel of the USACE Albuquerque District Real Estate Division and Operations Division staff at Trinidad Lake, conduct compliance inspections which include various kinds of easements, leases, and licenses annually in accordance with applicable regulations.

1.8.3 Guidelines for Property Adjacent to Public Land

It is the policy of the USACE to manage the natural, cultural, and developed resources of Trinidad Lake to provide the public with safe and healthful recreational opportunities, while protecting and enhancing those resources. While private exclusive use of public land is not permitted, property owners adjacent to public lands do have all the same rights and privileges as any other citizen on government owned property.

Therefore, the information contained in these policies is designed to acquaint the adjoining landowner and other interested persons with the types of property involved in the management of government land at Trinidad Lake.

Individuals and entities interested in lease acquisition to provide services to the public on USACE fee-owned lands should be aware that specific restrictions and procedures apply to such leases. In many cases, individuals or entities will be encouraged to pursue a sublease with an existing lessee. Any leases for new services are subject to a competitive bidding process following market studies and a determination by USACE that the prospective service or product would be beneficial to users at Trinidad Lake. Questions regarding this topic can be directed to the lake office.

1.8.3 Trespass and Encroachment

Government property is monitored by USACE Trinidad Lake personnel to identify and correct instances of unauthorized use, including trespasses and encroachments. The term “trespass” includes unauthorized transient use and occupancy, such as mowing, tree cutting and removal, livestock grazing, cultivation and harvesting crops, and any other alteration to Government property done without USACE approval. Unauthorized trespasses may result in a Title 36 citation to appear in Federal Magistrate Court, which could subject the violator to fines or imprisonment (See 36 Code of Federal Regulations (CFR) Part 327 Rules and Regulations Governing Public Use of Water Resources Development Projects Administered by the Chief of Engineers). More serious trespasses will be referred to the USACE Office of Counsel for enforcement under state and federal law, which may require restoration of the premises and collection of monetary damages.

The term “encroachment” pertains to an unauthorized structure or improvement on Government property. When encroachments are discovered, USACE Trinidad Lake personnel will attempt to resolve the issue at the project level. Where no resolution is reached, or where the encroachment is a permanent structure, the method of resolution will be determined by USACE Real Estate Division, with recommendations from the Operations Division, and Office of Counsel. USACE’s general policy is to require removal of encroachments, restoration of the premises, and collection of appropriate administrative costs and fair market value for the term of the unauthorized use.

1.9 PERTINENT PROJECT INFORMATION

Table 1.2 outlines pertinent project information such as key elevations, water storage, and spillway flow capacity at Trinidad Lake.

Table 1.2 Pertinent Data

Feature	Volume in Acre Feet	Area in Acres	Outlet Flow (CFS)	Spillway Flow (CFS)
Top of Dam	169,699	2,623	-	-
Maximum Pool	165,283	2,573	6,000	516,230
Top of Flood Control	120,446	2,086	5,700	18,600
Spillway Crest	116,330	2,024	5,600	8,800
Conservation Pool	15,967	625	4,100	-
Top of Irrigation	68,482	1,428	5,000	-

River Drainage Area = 671 square miles

CHAPTER 2: PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.1. PHYSIOGRAPHIC SETTING

Physiographic settings are the Earth's distinct landform regions defined in a three-tiered system of (1) physiographic divisions; (2) physiographic provinces; and (3) physiographic sections. Trinidad Lake is in the Southern High Plains section of the Great Plains province of the Interior Plains division. The Interior Plains cover a vast area of central North America, extending from the Gulf Coast to the Arctic Ocean along the east flank of the Rocky Mountains. The Great Plains is the broad expanse of flat land, much of it covered in prairie, steppe, and grassland. The Southern High Plains is a region that reaches the northern boundary of the United States in North Dakota and Montana and extends from the Pecos River on the west to Palo Duro Canyon in Texas on the east and southward to Hobbs, New Mexico, covering an area of about 32,000 square miles.

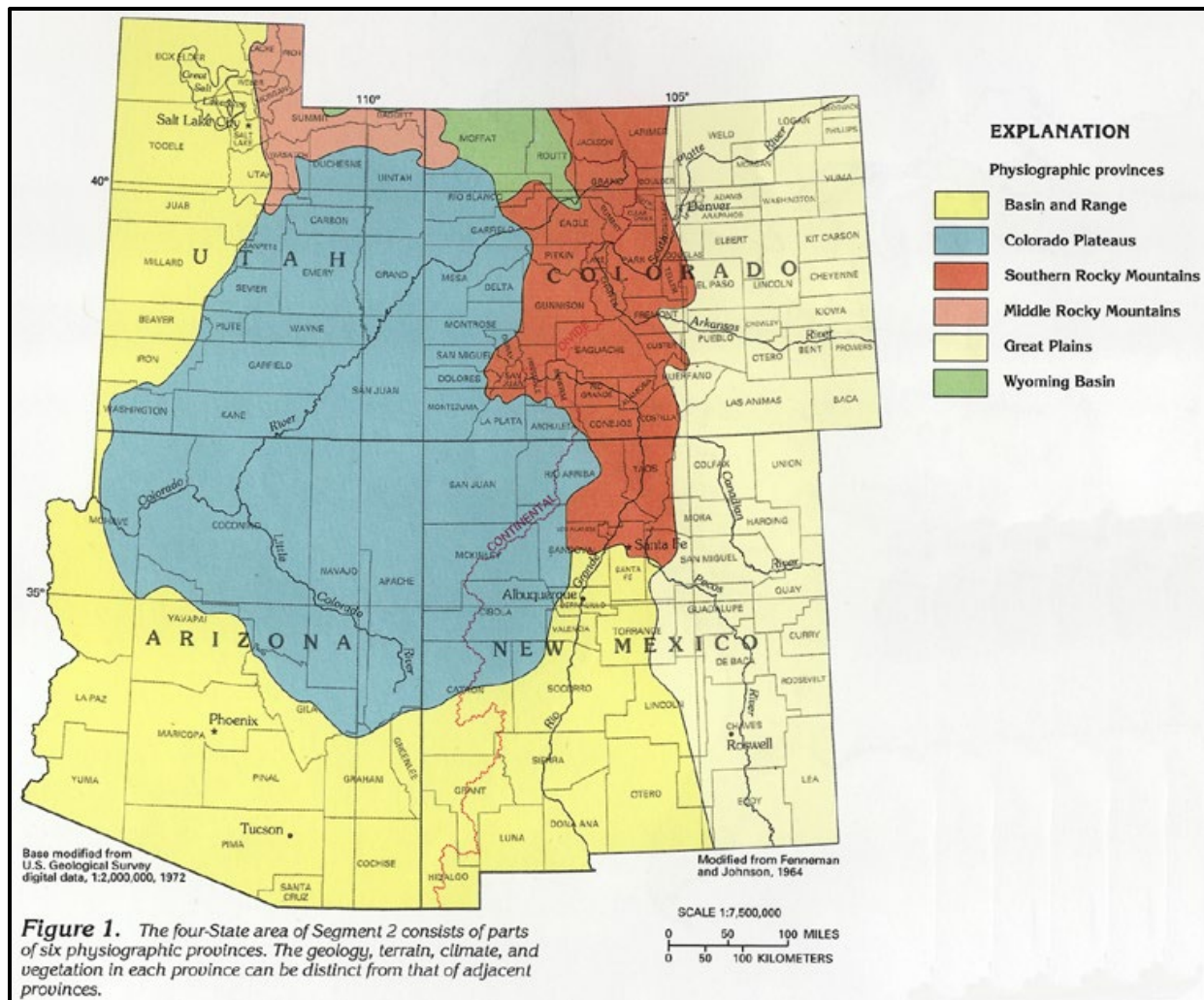


Figure 2.1 Physiographic Provinces of Colorado, Utah, Arizona, and New Mexico

(Source USGS 2020, https://pubs.usgs.gov/ha/ha730/ch_c/C-text1.html)

2.1.1 Ecoregion Setting

Ecoregions are major ecosystems within physiographic regions defined by geographically distinct plant and animal species, natural communities, and environmental conditions. There are 6 Level III and 35 Level IV ecoregions in Colorado. Trinidad Lake is in the Conchas/Pecos Plains (Level IV) of the Southern Rockies Ecoregion (Level III), including much of central Colorado and parts of southern Wyoming and northern New Mexico (Figure 2.2).

The Southern Rockies Ecoregion is a high-elevation mountainous ecoregion that covers approximately 53,612 square miles. The ecoregion receives most of its annual precipitation as snowfall, which provides a significant amount of high-elevation snowpack that is an important water source for surrounding ecoregions. The Southern Rockies Ecoregion has a steep elevation gradient from low foothills to high peaks, with several hundred summits higher than 12,000 ft. As a southern extension of the larger

Rocky Mountain system, it is composed primarily of seven main north-south trending mountain ranges that are separated by four large intermontane basins.

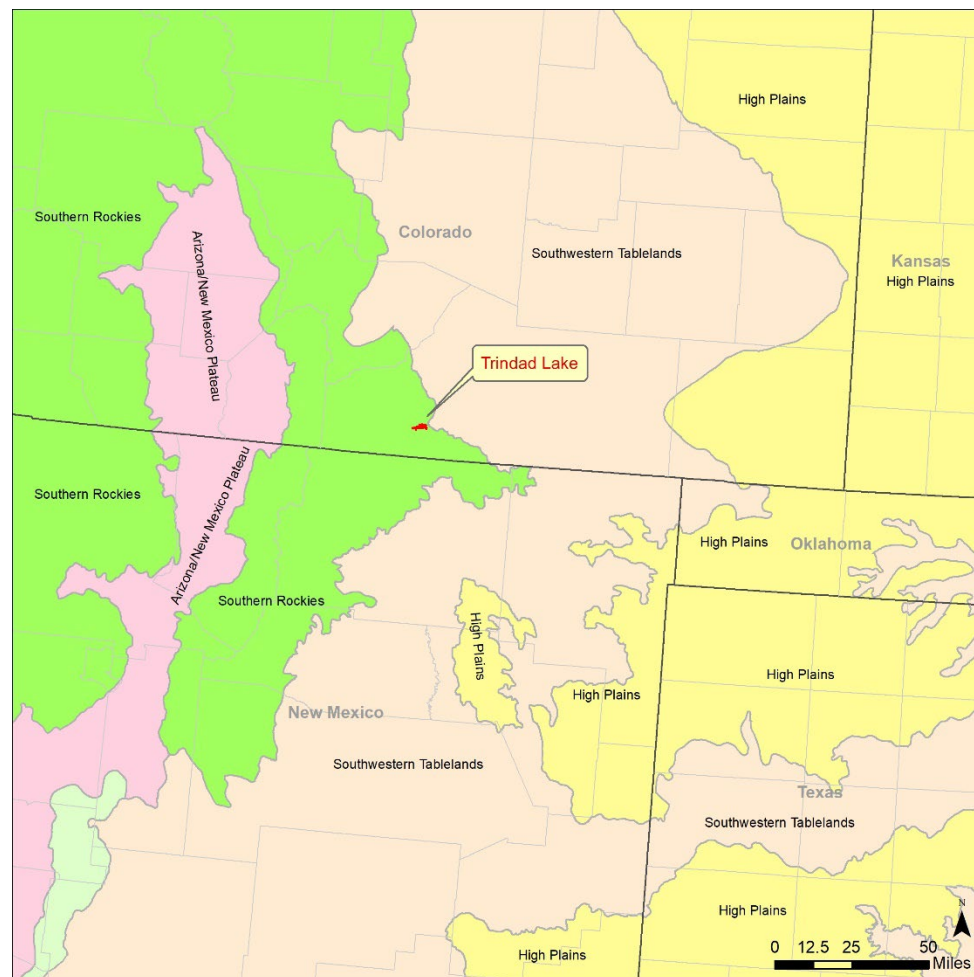


Figure 2.2 Trinidad Lake Level III Ecoregion

2.1.2 Climate

The U.S. Global Change Research Program (USGCRP) looks at potential impacts of climate change globally, nationally, regionally, and by resource (e.g., water resources, ecosystems, human health). Trinidad Lake lies within the Great Plains region of analysis. Over the last few decades, the Great Plains region has experienced more frequent climate extremes of heat, drought, and precipitation, with a decrease in the number of cold days, which results in an overall lengthening of the frost-free season by one to two weeks. Most of Colorado has warmed one- or two-degrees Fahrenheit (°F) in the last century (Figure 2.3). Heat waves are becoming more common, snow is melting earlier in spring, and less water flows through the Colorado River (EPA, 2023).

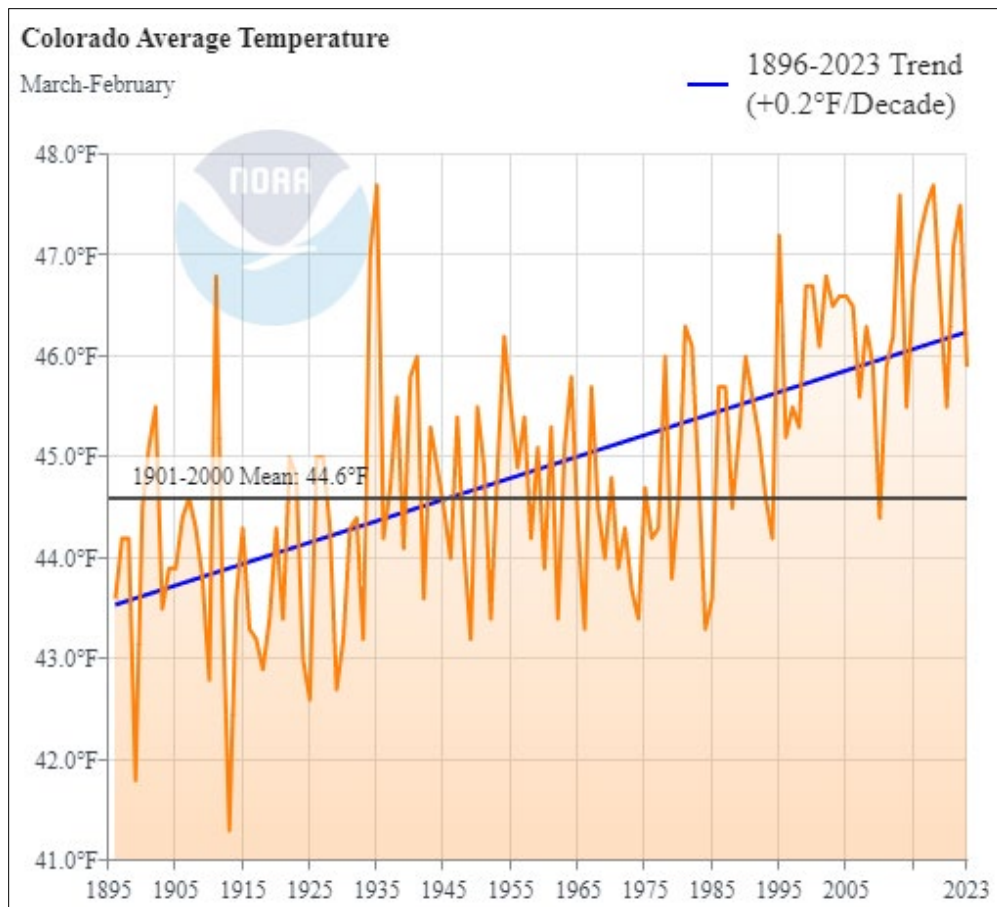


Figure 2.3 Temperature Chart for Colorado (NOAA, 2016)

While climate conditions vary considerably between the high mountains and valleys, the climate of the basin is largely semi-arid. The climate of the general Trinidad area is characterized by intense local thunderstorms during July and August, heavy snowfall from November to April, and frontal or cyclonic-storm rain during May. Summer temperatures are generally hot during the day and warm at night, while winter temperatures are generally cold, including freezing temperatures and some nights below 0 degrees. The average high in January is 47°F and average low is 17°F, while the average high in July is 89°F and average low is 58°F. Average annual precipitation is 13.84 inches, with the highest accumulation in July and September, averaging 2.3, 2.23 inches, respectively. Trinidad Lake receives an average of 40 inches of snowfall each year. The highest recorded temperature in Trinidad Colorado was 101°F on June 10, 2013, and the record low temperature was -32°F on January 12, 1963.

This trend of rising temperatures and more frequent extreme climate events such as heat waves, drought, and heavy rainfall is predicted to continue (USGCRP 2014). The USGCRP looks at two potential future conditions as part of its predictive modeling process; lowering Greenhouse Gas (GHG) emissions and continued current high GHG emissions. Under conditions of lower GHG emissions, the average temperature in the Great Plains region may increase as much as 4°F by 2020, 6°F by 2050, and 8°F by

2090 from averages observed in 2000. Under conditions of higher continuous GHG emissions, potential increase is greater in the long-term, and may be as much as 13.5°F by 2090. This will dramatically affect water availability and land usage throughout the region, including Trinidad Lake. The lake protects the region from climate change through flood risk management, irrigation, and water conservation missions, as well as helps sequester carbon (a greenhouse gas contributor) through its natural areas while providing a recreation and relaxation area for people. Thus, maintaining a healthy natural environment is paramount to future sustainability and resilience for operations and recreation.

2.1.3 Geology and Topography

Trinidad Lake is located on the eastern flank of a broad subsidence (syncline) known as the Raton Basin (Figure 2.4). This basin extends northward from Las Vegas, New Mexico and into Huerfano Park, Colorado, lying between the Sangre de Cristo Mountains on the west and the Sierra Grande arch on the east.

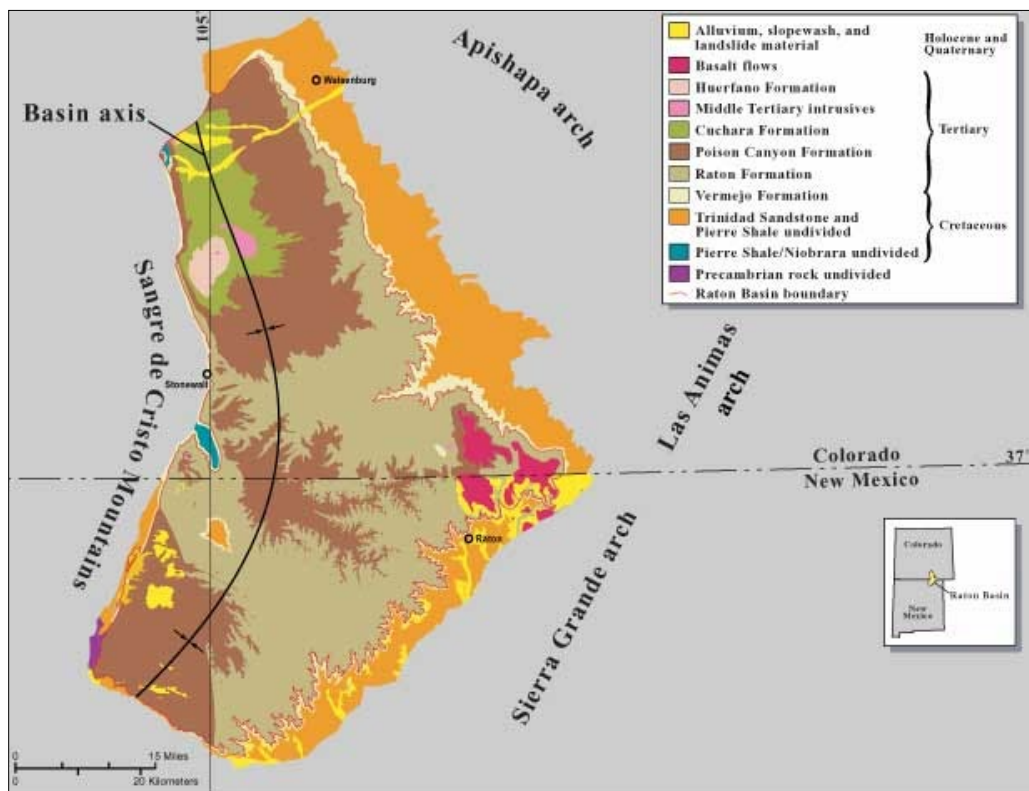


Figure 2.4 Raton Basin (Source: Johnson and Finn (2001) US Geological Survey)

The subsidence occurred somewhat prior to and concurrent with the uplifting of the Sangre de Cristo Mountains, which is an igneous uplift comprising part of the Rocky Mountain Chain. The uplift occurred during the Laramide Revolution, which marked the end of the Mesozoic and the commencement of the Cenozoic eras. As a result of the subsidence, strata on each flank of the basin dip toward the center. The supply of sediments was sufficient to continually fill the basin and, consequently, the strata

thicken from the basin edges toward the center. Beds of the Vermejo and Raton formations dip and thicken greatly westward from the damsite into the reservoir area and beyond the center of the basin. These two formations have extensive coal beds and have been intensively mined in the vicinity of Trinidad.

2.1.4 Hydrology and Groundwater

The Purgatoire River, which feeds Trinidad Lake, originates at the confluence of the North Fork Purgatoire and the Middle Fork Purgatoire rivers near Weston in Las Animas County, Colorado. It flows generally east-northeastward 196 miles to a confluence with the Arkansas river in John Martin Reservoir State Park near Las Animas in Bent County, Colorado. The Raton drainage basin above the embankment has an area of 671 square miles and is composed principally of a mountainous portion with steep slopes and rapid runoff. The plains area has gentle slopes and a more rapid runoff rate than the plateau areas (Figure 2.5).

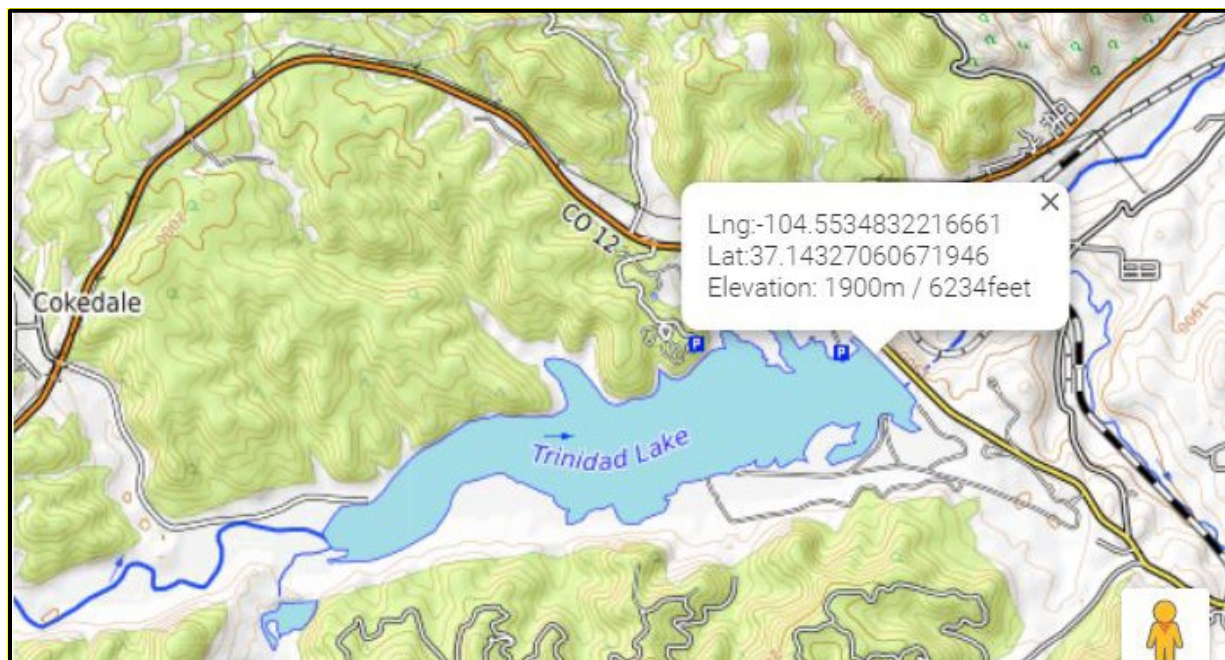


Figure 2.5 Topography at Trinidad Lake (Worldwide Elevation Map Finder)

Colorado contains seven principal aquifer systems: the South Platte Aquifer, Arkansas Aquifer, High Plains Aquifer, San Luis Valley Aquifer System, Denver Basin Aquifer System, Piceance Creek Basin Aquifer and Leadville Limestone Aquifer of west-central Colorado. However, there are no principal aquifers in the Trinidad Lake region so that the region is dependent on surface water, making Trinidad Lake a vital asset.

2.1.5 Soils

Five major soil types occur within Trinidad Lake, excluding areas inundated by water and the dam footprint. The most abundant soil types within the Project fee

boundary are earthen dam, Lorencito-Rombo-Sarcillo complex, and Lorencito-Sarcillo-Trujillo.

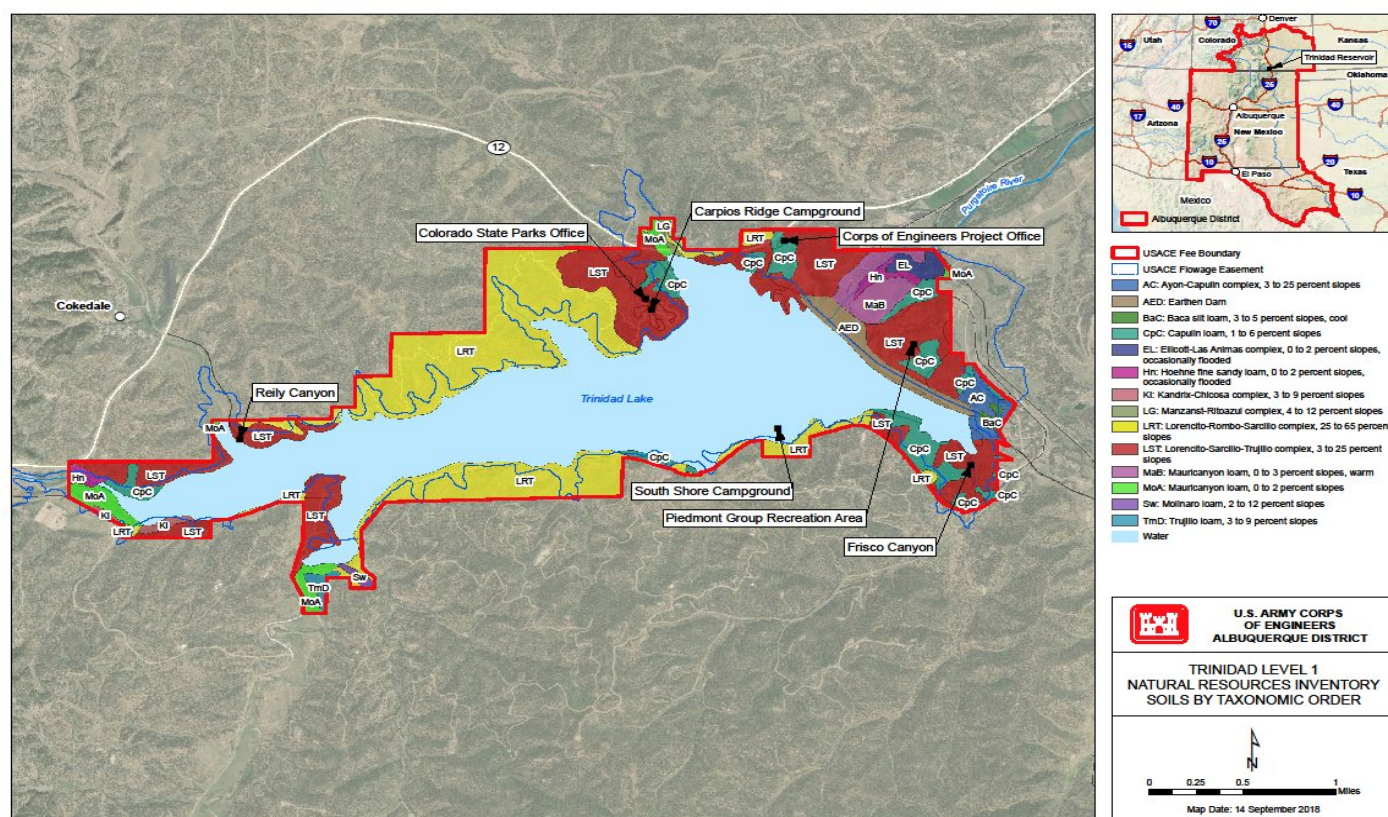


Figure 2.6 Trinidad Lake Soils Map (Source: 2013 Trinidad Lake State Park EA)

A soil survey by the Natural Resource Conservation Service (NRCS) shows there are all eight possible general classifications (Class I through Class VIII) occurring in Las Animas County, but only 5 occur at Trinidad Lake. The erosion hazards and limitations for use increase as the class number increases. Class I has few limitations, whereas Class VIII has many. The soil class data for project lands is provided in Table 2.1 This data is compiled by the NRCS and is a standard component of natural resources inventories on USACE lands. This, and other inventory data, is recorded in the USACE Natural Resource Management system (NRM).

Table 2.1 Soil Classes

Soil Class	Acreage
Class I	0
Class II	173
Class III	58
Class IV	302
Class V	0
Class VI	12
Class VII	1,347
Class VIII	0

(Source: NRI Level I Inventory)

A general description of the soils and land capability by classification are described below. Detailed information on all soil types surrounding Trinidad Lake is available on websites maintained by the NRCS, U.S. Department of Agriculture.

- *Class I* soils have slight limitations that restrict their use.
- *Class II* soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.
- *Class III* soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
- *Class IV* soils have very severe limitations that restrict the choice of plants or require very careful management, or both.
- *Class V* soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- *Class VI* soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- *Class VII* soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.
- *Class VII* soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or Water Supply or for aesthetic purposes.

2.2 ECOREGION AND NATURAL RESOURCE ANALYSIS

2.2.1 Vegetative Resources

USACE regulations and policy require a basic inventory of the vegetation at all operational projects. This inventory, referred to in EP 1130-2-540 as a Level 1 inventory, classifies the vegetation in accordance with the National Vegetation Classification System (NVCS) down to the Sub-Class level, which is a very broad classification level. The inventory data, presented in Table 2.2, is useful in providing a general characterization of the vegetation for all operational projects. Daily management

of USACE lands requires more detailed knowledge of the vegetation down to the Association level within the NVCS, and for most management prescriptions, down to the individual species level of dominant vegetation. Further information on vegetative resources can be found in the 2019 Trinidad Lake Level 1 Inventory.

Table 2.2 Vegetation Classification Using the NVCS Sub-Class Level

Vegetation Community	Acres	Dominant Vegetation
Woodlands – Temperate Forest	1,835	Pinon pine, one-seed juniper, and Rocky Mountain juniper, Gambel oak, mountain mahogany, serviceberry, blue grama sideoats grama, and needle-and-thread grass, ponderosa pine, pinon pine, and Rocky Mountain juniper
Grasslands – Cool Semi-Desert Shrub and Grassland	11	Western wheatgrass, needle-and-thread grass, Indian ricegrass, blue grama, galleta, and sideoats grama
Shrublands – Temperate and Boreal Shrubland and Grassland	46	Rabbitbrush, four-wing saltbush, and alkali sacaton
Agriculture – Herbaceous Agricultural Vegetation	12	Not specified

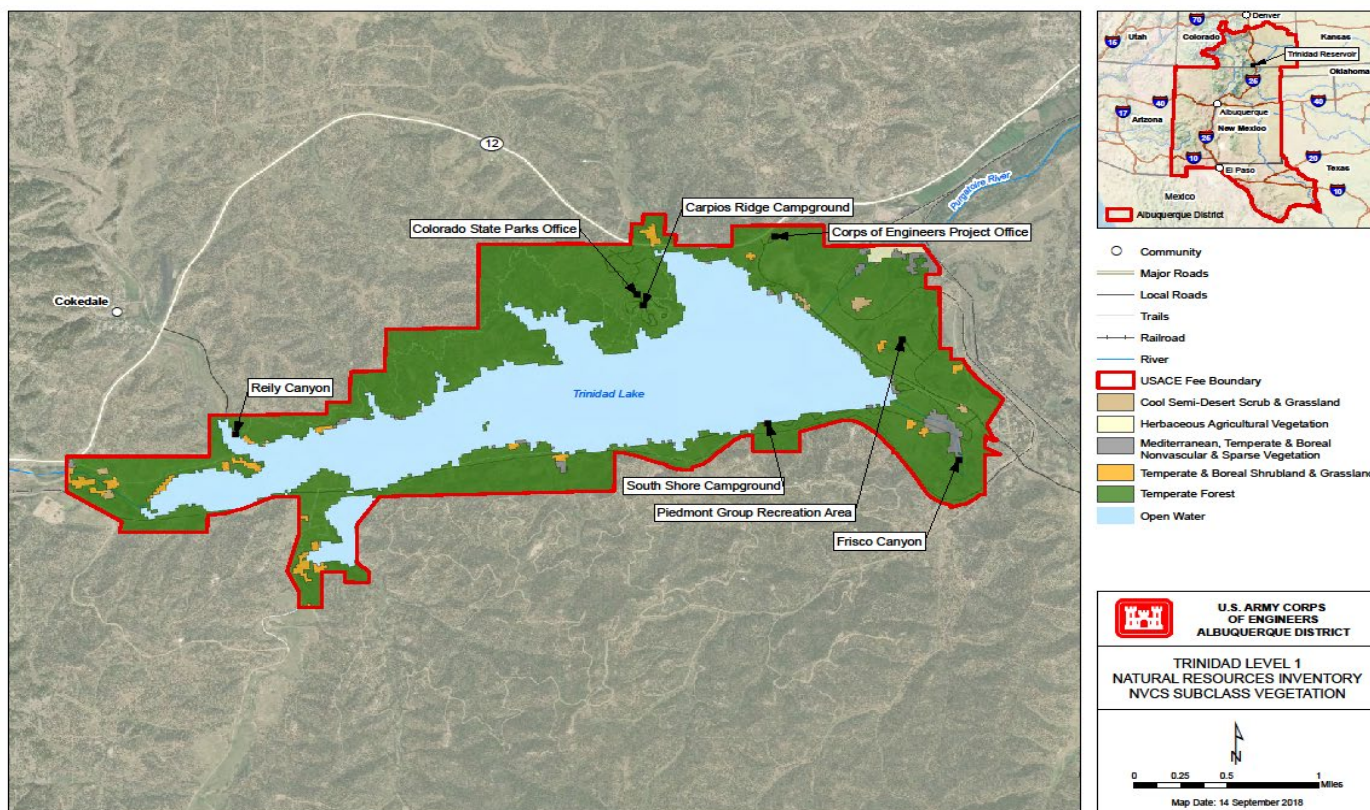
Source: NRI Level I Inventory

Approximately 56 percent of the ecoregion is forested, and 38 percent of the total area consists of grassland/shrubland. Forest types include the more prevalent spruce-fir (*Picea spp. and Abies spp.*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), aspen (*Populus tremuloides*), and pinyon-juniper (*Pinus edulis and Juniperus scopulorum, monosperma, and osteosperma*) types. Vegetation patterns correspond with the steep elevation gradient. In general, grassland and shrubland covers the lower elevation valleys and intermontane basins. Sagebrush (*Artemisia tridentata*), oak (*Quercus spp.*), pinyon-juniper woodland, and blue grama grass (*Bouteloua gracilis*) are common at lower elevations. Ponderosa pine, aspen, juniper, and oak are common at middle elevations. The higher elevation subalpine forests are often dense, consisting of Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*). High-elevation alpine zones are above the tree line and support a variety of low shrubs, wildflowers, krummholz (stunted trees), and other vegetation interspersed with exposed rocks, peaks, and permanent snowfields (USGS 2012). Table 2.3 lists the typical natural vegetation for these plains, and Figure 2.7 illustrates the vegetation communities that occur at Trinidad Lake.

Table 2.3 Typical Grassland Vegetation at Trinidad Lake

Common Name	Scientific Name
Blue grama	<i>Bouteloua gracilis</i>
Broom snakeweed	<i>Gutierrezia saothrae</i>
Buffalograss	<i>Bouteloua dactyloides</i>
Cacti	<i>Cactaceae</i>
Cholla	<i>Cylindropuntia</i>
Galleta grass	<i>Pleuraphis jamesii</i>
Little bluestem	<i>Schizachyrium scoparium</i>
Ring muhly	<i>Mulhenbergia torreyi</i>
Sand dropseed	<i>Sporobolus cryptandrus</i>
Sideoats grama	<i>Bouteloua curtipendula</i>
Threeawn	<i>Aristida, ssp</i>
Western wheatgrass	<i>Pascopyrum smithii</i>
Yucca	<i>Asparagaceae</i>

Figure 2.7 Vegetation Classification at Trinidad Lake



2.2.2 Wetland Resources

Waters of the United States are defined within the Clean Water Act (CWA), and jurisdiction is addressed by USACE and the United States Environmental Protection Agency (EPA). Wetlands are a subset of the waters of the United States that may be subject to regulation under Section 404 of the Clean Water Act (CWA) (40 CFR 120.2). Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. For natural resource management and inventory purposes at operational USACE projects, USACE uses the National Wetlands Inventory (NWI) maintained by the USFWS. Figure 2.8 illustrates the different wetland types and locations near Trinidad Lake.

Figure 2.8 Wetland Resources Near Trinidad Lake

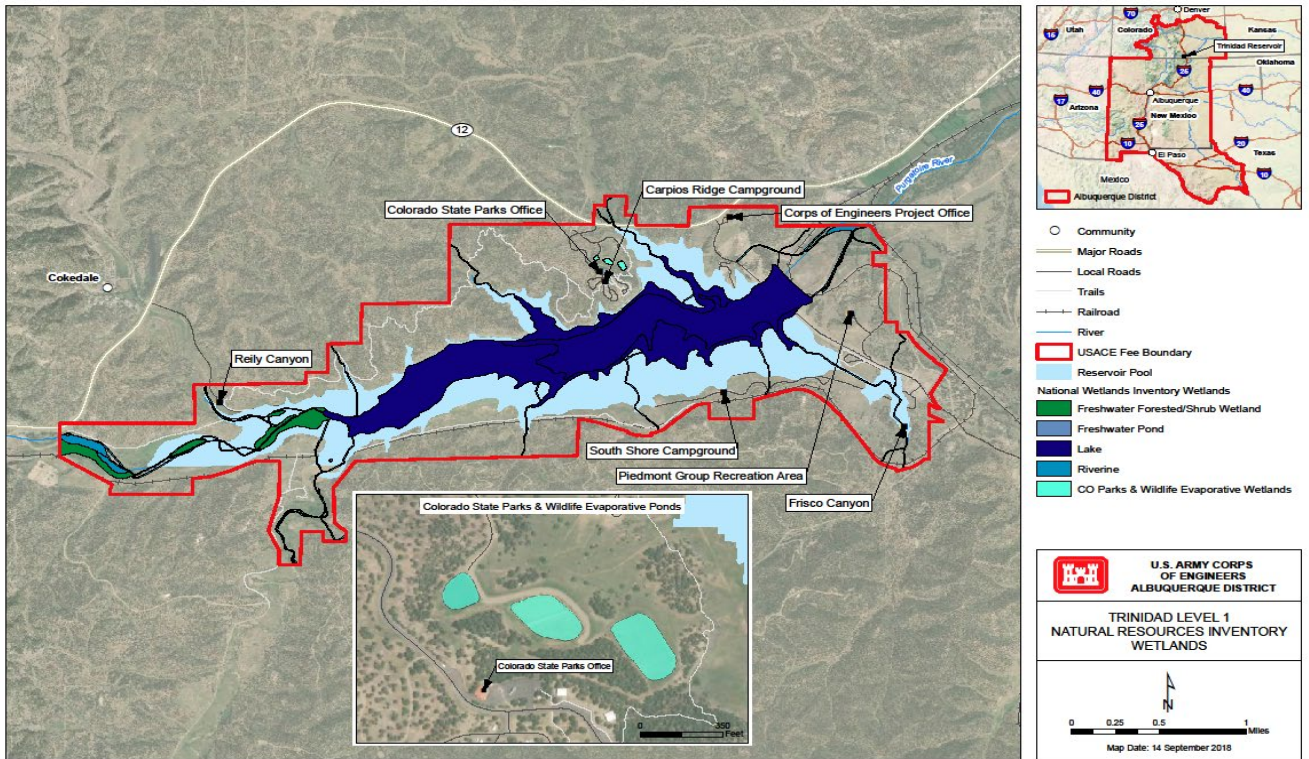


Table 2.3 lists the acreages of various types of wetlands present on fee-owned land at Trinidad Lake. Wetland classifications presented are derived from the U.S. Fish & Wildlife Service's (USFWS) Trust Resource List generated using the Information, Planning, and Conservation System decision support system.

Table 2.3 Wetland Resources

Wetland Types	Total Acres
---------------	-------------

Lake – Lacustrine, Littoral, Unconsolidated Shore Temporary Flooded, Excavated	321
Lake – Lacustrine, Limnetic, Unconsolidated Bottom, Permanently Flooded Excavated	233
Riverine – Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded	20
Riverine – Lower Perennial, Unconsolidated Bottom Intermittently Exposed	16
Riverine – Riverine, Intermittent Streambed, Seasonally Flooded	9
Riverine – Riverine, Lower Perennial, Unconsolidated Bottom, Temporary Flooded	4
Riverine – Riverine, Unknown Perennial, Unconsolidated Bottom Semi-permanently Flooded, Excavated	.61
Freshwater Forested / Shrub Wetland – Palustrine, Scrub-Shrub, Seasonally Flooded	38
Freshwater Forested / Shrub Wetland – Palustrine, Scrub-Shrub, Temporary Flooded	4
Evaporative Wetland – Sewage Treatment Lagoons	3
Freshwater Ponds – Palustrine, Unconsolidated Shore, Temporary Flooded	0.2

Note: Acreages from the USFWS website do not match exactly with the USACE digitized acreages. Acreages provided in this table reflect only acreage that is owned in fee-simple by USACE. Source: NWI from 2019 NRI Level I Inventory. Source: 2019 NRI Level I Inventory

2.2.3 Fish and Wildlife Resources

Trinidad Lake provides habitat for an abundance of fish and wildlife species. The lake provides a quality fishery, as well as quality wildlife habitat on public land associated with the project.

Fish Resources

Trinidad Lake provides fishing opportunities for the boater and for the bank angler. Common fish species present in Trinidad Lake are listed in Table 2.4. Stocking of Trinidad Lake is conducted by Colorado Parks and Wildlife annually. In 2019 a fish survey was completed on Trinidad Lake. A total of 139 fish were caught and this information was used to assess the populations of different species in the lake and create a 2020 fishing forecast.

Table 2.4 Common Fish Species at Trinidad Lake

Common Name	Scientific Name
Black crappie	<i>Pomoxis nigromaculatus</i>
Bluegill	<i>Lepomis macrochirus</i>
Channel catfish	<i>Ictalurus punctatus</i>
Largemouth bass	<i>Micropterus salmoides</i>
Saugeye	<i>Sander canadensis x vitreus</i>
Smallmouth bass	<i>Micropterus dolomieu</i>
Trout	<i>Oncorhynchus mykiss</i>
Walleye	<i>Sanders vitreus</i>
Wiper	<i>Morone chrysops x Morone saxatilis</i>
Yellow Perch	<i>Perca flavescens</i>

Trinidad Lake is currently under a fishing advisory for high mercury levels for saugeye, smallmouth bass, and walleye. The latest consumption recommendations can be found at www.colorado.gov/cdphe/wq-fish-consumption



Photo 2.1 Vegetation at Trinidad Lake

Wildlife Resources

Trinidad Lake provides habitat for an abundance of wildlife species, including game and non-game species, migratory waterfowl, resident, and migratory songbirds, wading birds, mammals, reptiles, amphibians, and insects. Typical Mammals found in the area are listed in Table 2.5. Pronghorn antelope is the most common large native mammal of the region.

Table 2.5 Mammal Wildlife Resources at Trinidad Lake

Common Name	Scientific Name
Badger	<i>Taxidea taxus</i>
Beaver	<i>Castor canadensis</i>
Black bear	<i>Ursus americanus</i>
Black-tailed jackrabbit	<i>Lepus californicus</i>
Bobcat	<i>Lynx rufus</i>
Coyote	<i>Canis latrans</i>
Desert cottontail	<i>Sylvilagus audubonii</i>
Elk	<i>Cervus canadensis</i>
Mule deer	<i>Odocoileus hemionus</i>
Mountain lion	<i>Puma concolor</i>
Muskrat	<i>Ondatra zibethicus pallidus</i>
Porcupine	<i>Erethizon dorsatum</i>
Raccoon	<i>Procyon lotor</i>
Red fox	<i>Vulpes vulpes</i>
Swift fox	<i>Vulpes velox</i>
Turkey	<i>Meleagris gallopavo</i>

Trinidad Lake entertains a wide variety of seasonal and year-round birds, and bird watching is a popular activity at the lake. The Colorado Parks and Wildlife (CPW) website includes a checklist for the birds found at Trinidad Lake. Seasonal waterfowl commonly found in this area include a variety of ducks, geese, pelicans, and herons. Hunting is permitted in posted areas under the jurisdiction of the CPW

2.2.4 Threatened and Endangered Species

The Endangered Species Act of 1973 establishes protections for fish, wildlife, and plants that are listed as threatened or endangered, provides for adding species to and removing them from the list of threatened and endangered species, and for preparing and implementing plans for their recovery. Both the Federal Governments and individual States can list species in need of special protections to ensure their survival.

Threatened species are those which are likely to become endangered within the foreseeable future. Endangered species are in danger of extinction throughout all or a significant portion of their range. USFWS also identifies species that are candidates for listing as a result of identified threats to their continued existence. The Candidate designation includes those species for which USFWS has sufficient information to support proposals to list as endangered or threatened under the Endangered Species Act; however, proposed rules have not yet been issued because such actions are precluded at present by other listing activity. The USFWS Information for Planning and Consultation (IPaC) identified four species listed by the USFWS as Threatened, Endangered, or Candidate species that could potentially be found at Trinidad Lake (See

Appendix C for the IPaC report for Trinidad Lake). Additionally, the Colorado Parks and Wildlife has the primary responsibility for the protection of animal and plant species in Colorado. Within the Trinidad Lake federal fee-owned property, there are four state-listed bird species with potential to occur. Table 2.7 lists the federal and state listed species and their listing status.

**Table 2.6 Federal and State-Listed Threatened and Endangered Species
with Potential to Occur at Trinidad Lake**

Common Name	Scientific Name	Federal or State Listed	Listing Status
Gray Wolf	<i>Canis lupus</i>	Federal	Endangered
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Federal	Threatened
New Mexico meadow jumping mouse	<i>Zapus hudsonius luteus</i>	Federal/State	Endangered
Monarch Butterfly	<i>Danaus plexippus</i>	Federal	Candidate
Burrowing owl	<i>Athene cunicularia</i>	State	Threatened
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	State	Endangered

Source: USFWS, Colorado Wildlife Division

The Gray Wolf (*Canis lupus*) is usually molted white, brown, gray, and black in color (Photo 2.2). The species can thrive in a wide range of habitats including temperate forests, mountains, tundra, taiga, and grasslands. Colorado is historically part of the range of the gray wolf but currently the known populations extend only down to the Colorado Wyoming border. Due to this location the likelihood of occurrence within USACE Trinidad federal fee owned lands is extremely rare.



Photo 2.2 Gray Wolf (Courtesy of USFWS National Digital Library)

The Mexican spotted owl (*Strix occidentalis lucida*) is an ashy-chestnut brown color with white and brown spots on their abdomen, back, and head (Photo 2.3). They have dark eyes, brown tails marked with thin white bands. They lack ear tufts. Critical habitat for the species is scattered throughout New Mexico, Arizona, Utah, and Colorado. The main threat for this species is stand-replacing wildland fire practices. Due to this species dependence on trees, the likelihood of occurrence within USACE Trinidad Lake federal fee-owned property is possible.



Photo 2.3 Mexican Spotted Owl (Courtesy of National Park Service)

The New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) is grayish-brown on the back, yellow-brown on the sides, and white underneath (Photo 2.4). The species is 7.5-10 inches long with elongated feet and an extremely long, bicolored tail. The species utilizes persistent emergent herbaceous wetlands and scrub-shrub wetlands. The species is generally nocturnal and active only during the growing season, hibernating for nine months out of the year. Due to the species highly specialized riparian habitat requirements, it is unlikely to occur within USACE Trinidad Lake federal fee-owned property.



Photo 2.4 New Mexico Meadow Jumping Mouse
(Courtesy of USFWS)

The Monarch Butterfly (*Danaus plexippus*) is a species currently under consideration for official listing. Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins (Photo 2.5). The black border has a double row of white spots, present on the upper side of the wings. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic. During breeding season, monarchs lay their eggs on the obligate milkweed host plant. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration. This migration can take monarchs distances of over 3,000 kilometers and last for over two months. Because of the transient nature of this species, it is likely to occur at least seasonally at Trinidad Lake.



Photo 2.5 Monarch Butterfly
(Courtesy of USFWS)

2.2.5 Invasive Species

Invasive species are any kind of living organism which, if uncontrolled, causes harm to the environment, economy, or human health. Invasive species generally grow and reproduce quickly and spread aggressively. Non-native, or exotic, species have been introduced, either intentionally or unintentionally, and can out-compete native species for resources or otherwise alter the ecosystem. Native invasive species are those species that spread aggressively due to an alteration in the ecosystem, such as lack of fire or the removal of a predator from the food chain. Table 2.7 lists invasive and exotic species that occur at Trinidad Lake identified by CPW and USACE.

Table 2. 7 Invasive Species Found at Trinidad Lake

Common Name	Scientific Name
Barnyard grass	<i>Echinochloa crus-galli</i>
Bull thistle	<i>Cirsium vulgare</i> †
Burdock	<i>Arctium minus</i> †
Canada thistle	<i>Cirsium arvense</i> †
Cheatgrass	<i>Bromus tectorum</i> ; synonym <i>Anisantha tectorum</i>
Chinese elm	<i>Ulmus pumila</i>
Crested wheatgrass	<i>Agropyron cristatum</i>
Curly dock	<i>Rumex crispus</i>
Diffuse knapweed	<i>Centaurea diffusa</i> *†
Field bindweed	<i>Convolvulus arvensis</i> †
Flixweed	<i>Descurainia sophia</i>
Horehound	<i>Marrubium vulgare</i>
Houndstongue	<i>Cynoglossum officinale</i>
Jim Hill mustard	<i>Sisymbrium altissimum</i>
Kentucky bluegrass	<i>Poa pratensis</i>
Kochia	<i>Bassia scoparia</i> ; synonym <i>Bassia sieversiana</i>
Mullein	<i>Verbascum thapsus</i> †
Musk thistle	<i>Carduus nutans</i> *
New Zealand Mud Snails	<i>Potamopyrgus antipodarum</i>
Orchardgrass	<i>Dactylis glomerata</i>
Puncturevine	<i>Tribulus terrestris</i> †
Quackgrass	<i>Elytrigia repens</i>
Redtop	<i>Agrostis gigantea</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Russian thistle	<i>Salsola tragus</i> ; synonym <i>Salsola iberica</i>
Salt Cedar	<i>Tamarix spp.</i>
Scotch Thistle	<i>Onopordum acanthium</i> .
Smooth brome	<i>Bromus inermis</i> ; synonym <i>Bromopsis inermis</i>
Storksbill	<i>Erodium cicutarium</i>
Timothy	<i>Phleum pratense</i>
Wild oat	<i>Avena fatua</i>
White sweetclover	<i>Melilotus alba</i>

Common Name	Scientific Name
Yellow sweetclover	<i>Melilotus officinalis</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Yellow toadflax	<i>Linaria vulgaris</i> *†

* Las Animas county priority weed species. † Colorado noxious weed species. Source: USACE NRM and 2013 Trinidad State Park EA

2.2.6 Visual and Scenic Resources and Interpretation

Trinidad Lake includes many acres of scenic shorelines, lake views, and wildlife viewing areas providing high visual and scenic qualities. Some areas are admired for their scenic attractiveness (intrinsic scenic beauty that evokes a positive response), scenic integrity (wholeness of landscape character), and landscape visibility (how many people view the landscape and for what reasons and how long). Some areas have been designated as Wildlife Management or Environmentally Sensitive Areas to preserve specific animal, plant, or environmental features which also add to the scenic qualities at the lake. Additionally, reasonable measures must be taken to ensure that damage to the natural landscape from invasive species and catastrophic wildfire are minimized.

Interpretive programming is a systematic approach to providing information and education services to Trinidad Lake visitors. The primary objective is to tell the USACE story, inform visitors of the park rules, and to provide educational opportunities for visitors to develop intellectual and emotional connections to the resources found at Trinidad Lake. Interpretive techniques used include personal visitor contacts, public speaking engagements, and hosting primary, secondary, and college groups. In addition, the staff uses print and video media and various forms of social media to keep the visiting public informed. Interpretive programming also includes the management of public affairs, community relations, marketing, publications, special events, and cooperation with civic groups and resources partners. A variety of physical components are used to enhance the interpretive programming effectiveness. Adjacent landowners are advised to contact USACE lake staff prior to conducting any vegetation manipulation on USACE land.

2.2.7 Sedimentation and Shoreline Erosion

Erosion and sedimentation are naturally occurring events at water bodies. Sedimentation is the result of water carrying and depositing small particles from one place to another. Erosion is the process of wind and water eating away the shoreline, which becomes sediment. A bathometric map was completed in 2018, shown here in Figure 2.9, illustrating the depths within Trinidad Lake.

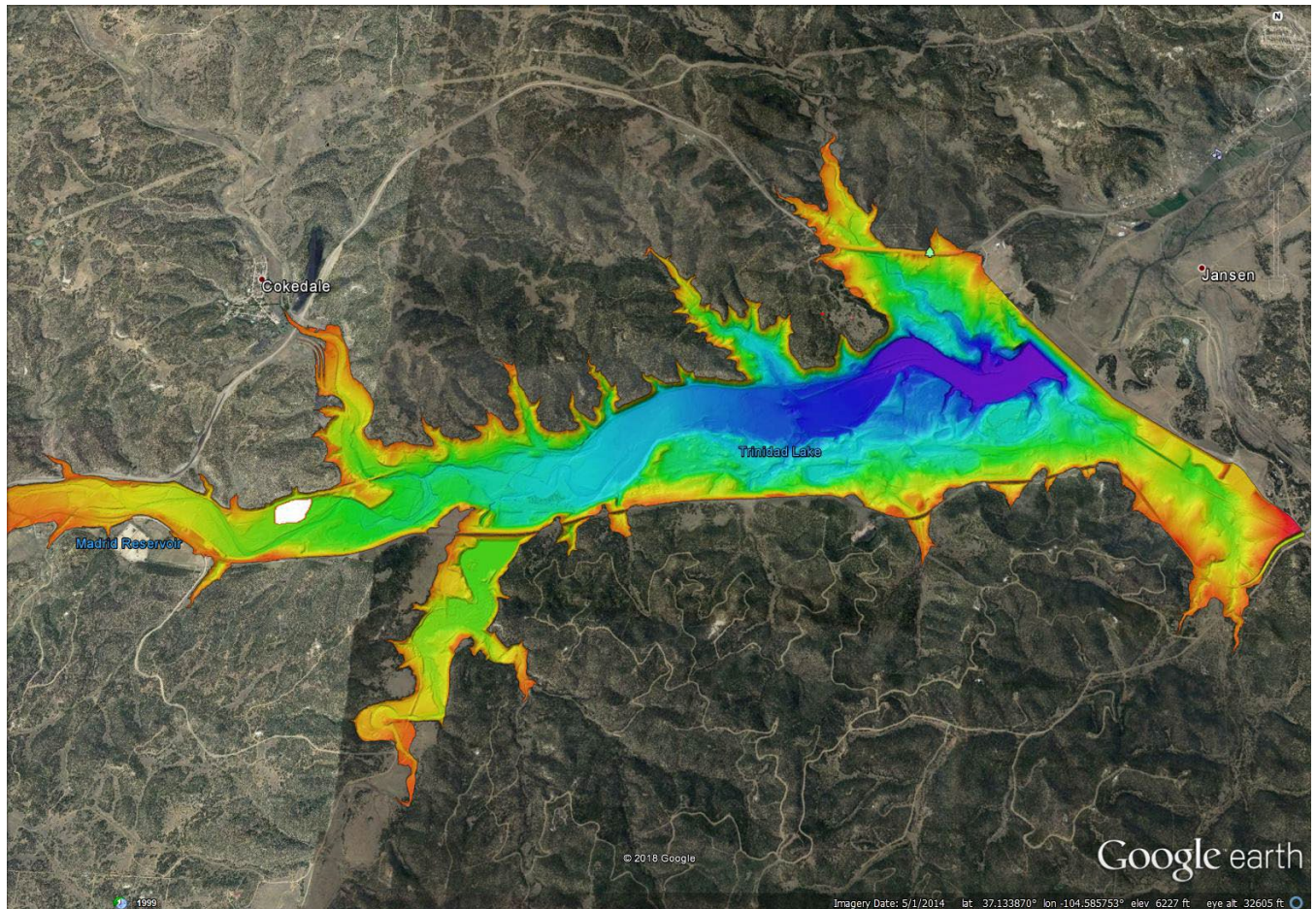


Figure 2.9 2018 Bathymetric Map for Trinidad Lake

2.2.8 Water Resources

Trinidad Lake serves as flood control for the city of Trinidad and irrigation water storage. Water is released through coordination with the Purgatoire River Water Conservancy District and the State Engineer's office. Irrigation water storage runs from October 15 through March 30, and then is released as needed in accordance with irrigation rights along the Purgatoire River from April 01 throughout the summer and fall until October 15. The heaviest drawdown occurs in from May through August, with a fluctuation range of 10-25 vertical feet (CPW 2001).

Runoff from melting snow in the Culebra Mountains during April, May, and June supports the Purgatoire River, which is the main source for Trinidad Lake. Eight major tributaries feed the Purgatoire River above the dam: Wet, Sarcillo, Burro, and Reilly Creek on the left bank, and South Fork, Lorencito, and Long's Canyon on the right bank. The mouths of Reilly and Long's Canyon tributaries enter directly into Trinidad Lake. As illustrated in Figure 2.10, which illustrates the overall Reservoir fluctuations from March 2013 through January 2019, water levels in Trinidad Lake fluctuate widely both seasonally and from year-to-year.

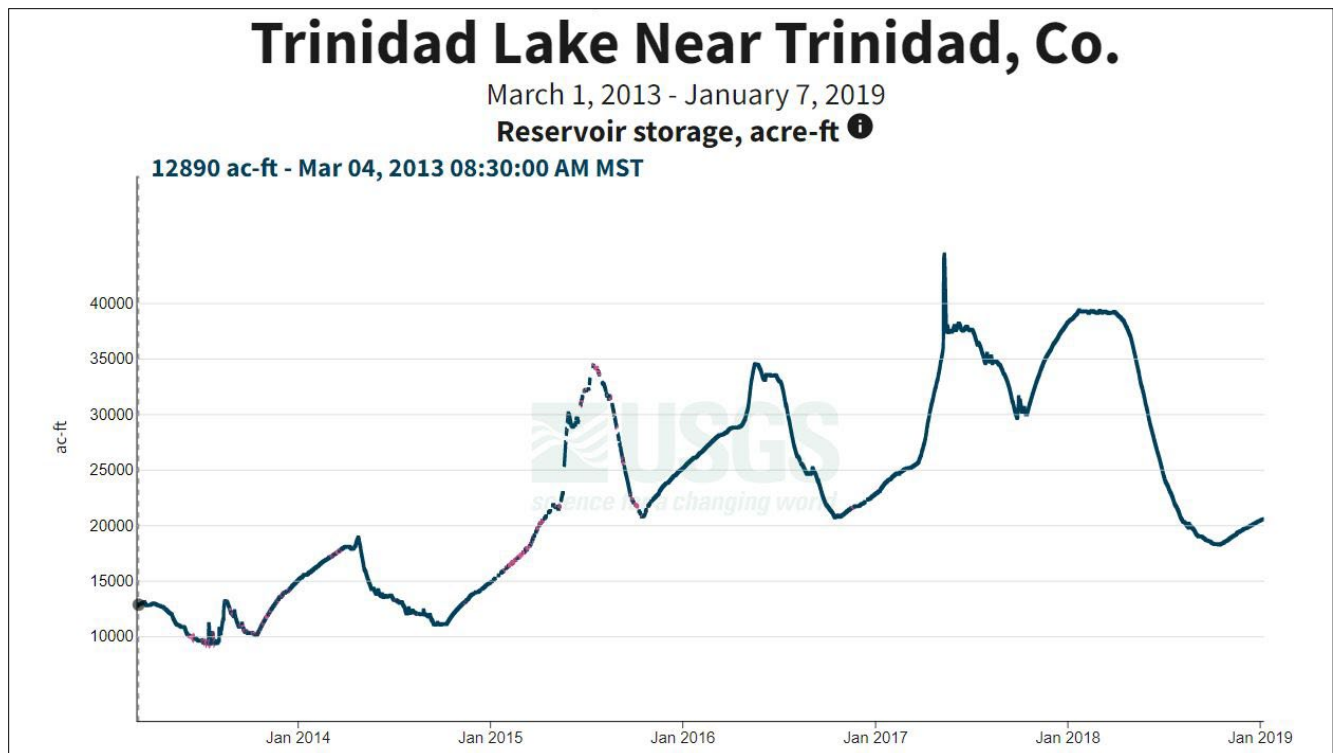


Figure 2.10 Water Levels at Trinidad Lake from March 2013 – January 2019 (USGS 2023)

Colorado Department of Public Health and Environment sets and implements standards for surface water quality to improve and maintain the quality of water in the state based on various beneficial use categories for the water body. The 2022 Integrated Water Quality Monitoring and Assessment Report, pursuant to the Clean Water Act Sections 314, 305(b) and 303(d), evaluates the quality of surface waters in Colorado and identifies those that do not meet uses and criteria defined in the Colorado Surface Water Quality Standards. Impaired waters are then identified, along with impairment descriptions, on the 303(d) list.

Trinidad Lake is listed as a waterbody that is impaired or identified for monitoring and evaluation. It is listed with analyte issues of dissolved oxygen (temperature), fish (mercury), and arsenic (total). All three of these are of high priority and can affect aquatic life use and water supply use. For further information on water quality, please see Appendix E.

2.2.9 Air Quality

The Clean Air Act, as amended, requires the EPA to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for pollutants considered harmful to public health and the environment. NAAQS standards specify maximum permissible short- and long-term concentrations of various air contaminants, including primary and secondary standards for six criteria pollutants: Ozone (O₃), Carbon Monoxide (CO),

Sulfur Dioxide (SO₂), Nitrogen Oxide (NO), particulate matter (PM₁₀ and PM_{2.5}), and Lead (Pb).

Primary standards provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. If the concentrations of one or more criteria pollutants in a geographic area is found to exceed the regulated “threshold” level for one or more of the NAAQS, the area may be classified as a non-attainment area. Areas with concentrations that are below the established NAAQS levels are considered either attainment or unclassifiable areas. Based on monitoring data, the EPA has determined that the Trinidad Lake area is currently in attainment, meaning that it meets standards.

2.2.10 Health and Safety

CPW, with some assistance from the USACE, has established public outreach programs to educate the public on water safety and conservation of natural resources. In addition to the water safety outreach programs, CPW has established recreation management practices to protect the public. These include safe boating and swimming regulations, and speed limit and pedestrian signs for park roads. CPW also ensures compliance with rules and regulations governing solid waste, wastewater, and potable water management in place for camping and day use areas, including those areas operated by lessees.

2.3 CULTURAL RESOURCES AND ANALYSIS

2.3.1 Cultural Resources at Trinidad Lake

As with most USACE lakes, Trinidad Lake contains many significant archaeological resources representing thousands of years of human occupation. This section discusses the cultural resources setting for Trinidad Lake to characterize the cultural context affecting the management of USACE lands and facilities, as well as the main applicable laws and regulations regarding cultural resources.

2.3.2 Cultural Resources Laws and Processes

A large body of federal legislation, regulations, and executive directives outline the responsibilities and procedures of federal agencies for management of cultural resources on federally owned or controlled lands and properties. Among those of primary importance are the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), the Archeological Resources Protection Act (ARPA), and the Native American Graves Protection and Repatriation Act (NAGPRA).

Section 106 of the NHPA is requires that federal agencies consider the effects of undertakings on cultural resources listed in, or eligible for listing in, the National Register of Historic Places (NRHP) at the planning stage. “Undertakings” are defined in the NHPA as any activity involving Federal action, funding, approval, or permission. The process is outlined in implementing regulation 36 CFR § 800 (Protection of Historic Properties), which provides for consultation with consulting parties such as State

Historic Preservation Officers (SHPOs), Tribal Historic Preservation Officers (THPOs), Native American tribes, local governments, applicants for federal permits or licenses, and the public, including individuals and organizations with a demonstrated interest in the outcome of any undertaking.

The 36 CFR § 800 regulations define the compliance process, but this process may be modified by a programmatic agreement (PA). As of this writing, Section 106 compliance at Trinidad Lake is governed by a PA executed on 12 December 2019, which streamlines and modifies the compliance process for routine operations and maintenance activities. This PA is an agreement between the USACE, the New Mexico State Historic Preservation Officer, the Colorado State Historic Preservation Officer (CO SHPO), and the Pueblo of Santa Ana Tribal Historic Preservation Officer.

Section 110 of the NHPA requires federal agencies to identify, evaluate, and nominate to the NRHP the eligible cultural resources in their care. Each agency must ensure that no potentially eligible historic property is inadvertently transferred, sold, demolished, substantially altered, or allowed to significantly deteriorate. If an action will alter or destroy an eligible property, the property must be properly documented prior to the undertaking. It also directs agencies to make use of historic buildings to the maximum extent feasible. Section 110 requires that all historic properties under Federal control be managed with respect to its historic values and maintained to prevent deterioration.

Two internal USACE policy documents regarding Operations refer to cultural resources—ER-1130-2-540 and EP-1130-2-540. ER-1130-2-540 specifies that USACE policy is to apply principals of good environmental stewardship to cultural resources on USACE administered and/or managed lands and provides guidance on curation and management of archaeological collections and cultural resources protection. EP-1130-2-540 contains guidance for collecting, preserving, and curating collections, and for establishing a Historic Preservation Program pursuant to the requirements of Section 110 of the NHPA.

EP-1130-2-540 specifies that cultural resource location information should be protected, that historic properties are considered in all management and construction activities, and that historic property inventories and site evaluations should be performed. The document also mandates preparation of a Historic Properties Management Plan (HPMP) for each project under USACE jurisdiction.

As required by ER 1130-2-540 and EP 1130-2-540, the Albuquerque District is currently in the process of drafting a HPMP which will have a more detailed discussion of resources, laws, USACE stewardship obligations, and processes for ensuring that USACE undertakings at Trinidad comply with the NHPA and other laws, with specific reference to the resources and properties located at Trinidad.

2.3.3 Archaeological Background

Most of the USACE fee land at Trinidad Lake had large scale, salvage effort archaeological surveys performed in the 1960s-1970s during dam construction, as well as contracted excavations between 1991-1994. Prior surveys had different recording standards and focused on areas with features and the highest concentrations of artifacts, and conditions on the ground have changed over time. The results of those efforts indicate that even areas that have had cultural resource inventories performed during dam construction, will need additional survey if the prior work was conducted before 2000. Cultural resource surveys that have been performed in recent decades are the result of small-scale surveys and individual undertakings. The portions of USACE fee land and flowage easement that need up to date cultural resource surveys total approximately 2,628 acres.

A total of 79 recorded sites have been identified on USACE fee land, 25 sites have been recorded within 0.25 miles of USACE fee land, and 12 sites have been recorded within the vicinity of Trinidad Lake (and may be impacted by USACE undertakings in the future). These include both prehistoric sites dating over the span of several thousand years, and post-contact and historic sites. All of these sites have the potential to be impacted by USACE actions, and those impacts must be considered in any USACE undertaking.

2.3.4 Culture History

Trinidad Dam is located in the foothills of the Rocky Mountains Sangre De Cristo Range, on the Purgatoire River, and bordered by the historic Santa Fe Trail. This area has been occupied by people for thousands of years, serving as a transportation route between the eastern plains of current day Colorado and the Southwest. In general, the archaeological chronology can be divided into five major time periods: Paleoindian, Archaic, Late Prehistoric, Protohistoric, and Historic. What follows is a brief outline of these periods represented in the vicinity of Trinidad Lake.

2.3.4.1 Paleoindian (c. 9,500 BC to 6,000 BC)

Paleoindian peoples are thought to have been primarily mobile hunter-gatherers, subsisting on megafauna and utilized seasonal vegetation. As megafauna began declining on the landscape, human subsistence strategies shifted to hunting smaller game and a heavier reliance of plants. The change in subsistence strategies is linked with changes in settlement patterns, lithic technology, and material culture for in the archaeological record.

Archaeological evidence indicates that human occupied the Purgatoire River valley during this time period. While there are no reported Pre-Clovis, Clovis, Folsom, or Plano archaeological sites within the immediate vicinity of Trinidad Lake, isolated projectile points are found in the area (Wood and Bair 1980), and there are some sites that may have late Paleoindian or early Archaic components (see OCA 550-3; Doleman 1996). The Folsom type site, Folsom Man Site (LA 8121) is located 50 miles southeast of Trinidad Lake, in northern New Mexico. The Folsom site provided the first direct evidence that demonstrated the antiquity of humans in North America (Cordell 1997;

Meltzer 2006; Wormington 1957). Mammoth bone and ivory have been discovered during quarrying operations for dam construction at Trinidad Lake as well as other excavations in the Trinidad area (USACE-ABQ-2017-005). In 1993, the discovery of an isolated projectile point was reported at Trinidad Lake, which resembled an Eden style projectile point, a style associated with transitional Paleoindian and early Archaic traditions (Dore 1993).

2.3.4.2 Archaic (c. 6,000 BC – AD 1)

Cultures belonging to the Archaic period are thought to have been very mobile, with an increased reliance of gathering, and likely utilized a seasonal migratory pattern in their subsistence strategies (Simmons et al. 1989). Archaeological sites from the Archaic period can be difficult to distinguish, due to lack of diagnostic artifacts or organic material (Cordell 1984). Projectile point typology, settlement type and location are often used to identify Archaic sites; however, using these criteria can be problematic. Generally, there is little evidence of Early or Middle Archaic sites in the central and eastern plains of Colorado (Zier and Kalasz 1999), and some studies suggest a “cultural hiatus” in the area (Antevs 1955; Benedict 1979; Zier and Kalasz 1999).

Toward the end of the Archaic period, significant technological shifts are found in the archaeological record, including the introduction of bow and arrow, and an increase in ground stone (Zier and Kalasz 1999). Gunnerson (1987) reports the existence of Early, Middle, and late Archaic archaeological sites in the mountain and mesa areas in the vicinity of Trinidad; however, others note the general lack of Early and Middle Archaic sites in the area (Dore 1993; Winter 1988).

2.3.4.3 Late Prehistoric (c. 500 BC – AD 1450)

The Late Prehistoric stage is broken into three periods: Developmental (AD 100-1050), Diversification (AD 1050-1450), and Protohistoric (AD 1450-1725). The Diversification period includes two distinct regional phases: Apishapa (AD 1050-1450) and Sopris (AD 1050-1200). In the vicinity of the Trinidad Dam and Reservoir, the Sopris Phase is the most heavily occupied prehistoric period (Everhart 2000) and is almost exclusively located on the Park Plateau in southern Colorado and northern New Mexico.

Prior to AD 1000, there is little evidence of occupation on the Park Plateau and the Upper Rio Grande Valley (Cordell 1984; Mitchell 1997). Evidence of a population influx around AD 1000 is apparent on the Park Plateau, with an increase in “homesteads and hamlets” (Mitchell 1997). Burials, representing 47 individuals, come from 11 sites associated with the Sopris phase in the vicinity of Trinidad Lake (Everhart 2000). Archaeological evidence suggests that the people associated with the Sopris Phase relied heavily on hunter-gather subsistence strategies (Mitchell 1997). There may be some indications of agriculture and horticulture, particularly cultivation of maize. It has been argued that the ceramic trade which begins during this time may include trade of maize seeds (Mitchell 1997). There is substantial evidence of food storage during the Sopris Phase. In addition to stored surpluses, researchers have noted evidence of

conflict among the archaeological evidence associated with the Sopris Phase at Trinidad Lake (Wood and Bair 1980). Several structures have burned beams and floors, as well as remains with a projectile point lodged in between thoracic vertebrae (Karhu 1995a). After approximately AD 1250, archaeological evidence associated with the Sopris Phase decreases (Everhart 2000). The lack of Santa Fe Black-on-white ceramics at Trinidad Lake suggests that trade between the Upper Rio Grande Valley and Purgatoire Valley ended ca. AD 1200 (Mitchell 1997). Wood and Blair (1980:16) state “After the disappearance of the Sopris peoples, the cultural record becomes sporadic. In fact, from about AD 1225 until the historically documented presence of the Jicarilla Apache in the area (AD 1541), little is known.”

2.3.4.4 Protohistoric (AD 1450- 1750)

In the vicinity of Trinidad Lake, two phases are used to describe the arrival and movement of nomadic groups in the region (refer to as the Nomadic Complex): the Carlana Phase (ca. AD 1525-1750), and the Montanes Phase (ca. AD 1750-1860). The start date of the Carlana Phase corresponds with the arrival of Athapaskan speaking peoples in the Southern Plains (Gunnerson 1987; Gunnerson 1979; Wood and Bair 1980). Due to linguistic similarities, Athapaskan tribes are generally thought to have migrated from western/central Canada and arrived in southeastern Colorado and northern New Mexico in the mid-1500s. The estimated arrival date of AD 1525 is based on ethnographic evidence during Francisco Vásquez de Coronado’s expedition and ceramic evidence (Gunnerson 1987; Gunnerson 1979; Wood and Bair 1980).

Spanish colonization began in 1598, with the establishment of the first Spanish colonial settlement in New Mexico, in the vicinity of Ohkay Owingeh (formerly known as San Juan Pueblo; Cordell 1997). With the rush of Spanish colonizers, many traveled the plains, meeting with tribes and mapping the landscape in what is now New Mexico, Texas, Oklahoma, Colorado, Kansas, and Nebraska (Thomas 1966). Coronado had identified two groups known as the Tejas and Querrchos. Later, some of these plain's tribes became known as the Cuartelejo, Jicarilla, Lipan, and Kiowa Apache, as well as the Faraons, Palomas, and Carlanas (Foster and McCullough 2001; Thomas 1966). The Spanish knew of the Utes in the mountainous regions to the north, the Pawnee to the far northeast, and the Jumanos to the southeast (Gunnerson 1979; Thomas 1966). The Apachean groups were known primarily as nomadic buffalo hunters who lived in teepee structures covered in hide, used dogs as pack animals, and several later groups were horticulturalists (Church et al. 2007; Foster and McCullough 2001).

2.3.4.5 Historic (AD 1750-Present)

Using established trade routes in the Arkansas and Purgatoire River valleys, by the 1700s the Comanche began occupying the areas along the Arkansas River valley in southeastern Colorado and raiding into New Mexico (Church et al. 2007; Gunnerson 1987; Winter 1988). Many of the plains and mountain tribes had long traded with the Puebloans as well as the Spanish in the Rio Grande valley; however, raiding often continued. Apachean groups such as the Jicarilla and the Kiowa-Apache as well as the Ute and Navajo tribes continued to raid the Rio Grande valley from outlying areas on all sides of the valley.

In 1810, a young Army lieutenant named Zebulon Montgomery Pike was dispatched to explore the area, and he later published his expedition of “Pike’s Peak”, drawing attention to the natural beauty of Colorado (Boyle 1994; Pike 1895). After Mexico’s 1820 independence from Spain, Mexico was opened to foreign trade and in 1821, a trader named William Becknell initiated what became a significant American as well as Mexican commercial trade over the famous Santa Fe Trail (Boyle 1994; Lavender 1954). A trading post was established, known as Fort William, and subsequently as Bent’s Fort, on the American (north) side of the Arkansas River in about 1833, capitalizing on the commerce and freighting business on the Santa Fe Trail (Boyle 1994; Lavender 1954; Thompson 1979).

After the Louisiana Purchase in 1803, Pike’s expedition, and the opening of trade with Mexico, the United States military saw opportunities for new land in the West. The earliest recorded American military expeditions to the West included those such as the Stephen Long Expedition (1820), the Jacob Fowler and Glenn party (1821-1822), John Fremont (1840s and 1853), and Stephen Watts Kearny and his Army of the West are known to have traveled along the Arkansas River and all except Fremont, also traveled on what became the Mountain Branch of the Santa Fe Trail which ran through the Trinidad area and over Raton Pass (Church et al. 2007; Eddy et al. 1982; Fritz 1941; Fowler 1898; Goetzmann 1991; Pike 1895; Schubert 1980; Ubbelohde et al. 1982). The Arkansas River continued to serve as the international boundary between what became the United States’ Louisiana Purchase on the north and the Spanish, then Mexican Nuevo Mexico on the south, until the United States acquired the territory after the “Mexican War” with the signing of the Treaty of Guadalupe Hidalgo in 1848 (Church et al. 2007).

The Arkansas and Purgatoire River valleys increasingly utilized as a transportation corridor and for livestock grazing during the early 1800s. By the 1820s, the Cheyenne were occupying the Arkansas River valley with their allies the Arapahoe (Winter 1988). At this time, the Comanche had moved further to the south and into Texas and the Jicarilla moved further to the west (Winter 1988). Land grants were established in the upper portions of the Pecos River valley and in northeastern New Mexico such as the significant Mora (1835) and Las Vegas (1835) grants, and later included portions of southern Colorado in the vicinity of Las Animas and Trinidad. The Mexican authorities were trying to create a buffer against outsiders since settlement and occupation of an area represented viable ownership.

In 1846, the US Army was ordered to invade Mexico with this expedition, the first accurate U.S. maps were made of the Santa Fe Trail corridor from Bent’s Fort southward into New Mexico (Goetzmann 1991; Schubert 1980). The Treaty of Guadalupe–Hidalgo was signed in 1848 ending the Mexican War with a huge portion of the Southwest and New Mexico becoming a U.S. Territory.

The historic sites at the Trinidad Reservoir fall into the Baca phase of the Ranchero Complex (1860-1900) or are modern sites related to Hispanic and Anglo-

American communities surrounding the Trinidad area (post 1900; Church et al. 2007; Hand et al. 1977; Wood and Bair 1980). The Ranchero Complex is described as “small sheep ranches with evidence of both adobe and sandstone foundations, porcelain, hand-wrought nails, late Taos, or Picuris micaceous pottery, as well as other late ceramic types of ‘Spanish’ origin” (Wood and Bair 1980:23). Archaeological surveys by Colorado College suggest that homesteaders began to settle the area in 1886, with a population peak in 1888 with approximately 6,000 individuals.

In 1872, the Santa Fe Trail was supplanted by the Atchison, Topeka and Santa Fe Railroad Company (AT&SF) with tracks being laid along the Arkansas River into eastern Colorado. The railroad assisted in bringing an end to the nomadic Plains Indian lifestyle and to the vast herds of buffalo upon which they depended. With the arrival of more settlers, the Plains Tribes were removed to reservations by the end of the 1880s. The Mountain Branch of the Santa Fe Trail, which follows the north side of the Arkansas River and down the Purgatoire through Trinidad and over Raton Pass, is now designated as a National Historic Trail and the famous Bent's Old Fort (1830's - 1850's), is a National Park.

In 1872, land purchases at Pueblo, Colorado, began what became the earliest and one of the greatest industrial powers in the West. The Trinidad Field contained good coking coal that “...could be the basis for a whole industrial development in Colorado” (Athearn 1962:32). Over the years, several railroads were significant to rail traffic and freighting between Denver, Pueblo, and Trinidad and points elsewhere. The Sopris (No. 1) mine was also one of the earliest mines opened for commercial production, opening in 1887. Large amounts of timber were cut for the infrastructure and for bracing in the mines, as well as being cut and “coked” for charcoal. Several small communities grew up around the mining, timber and coking industries including Jerryville, Piedmont, Saint Thomas, Sopris, Sopris Plaza, and Viola.

2.3.4.6 NAGPRA Efforts

Trinidad Lake contained several “type sites” for the Sopris Phase including numerous burials, many of which were destroyed during quarrying activities in 1978 (Colorado Historical Society, Compass Database 2022). Passage of the Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.), led to a significant documentation effort for all Native American human remains stored in museums nation-wide.

The USACE and Colorado Historical Society's State Historical Fund has provided funding to conduct radiocarbon testing on carbonized samples that were collected during the early salvage excavations and stored at the Loudon-Henritze Museum on the Trinidad State College Campus. Many of the artifacts and remains from Trinidad Lake are housed at the Loudon-Henritze Museum.

Pursuant to NAGPRA and Section 10.11 of its implementing regulations (43 CFR Part 10), the USACE is currently working with tribes regarding the disposition of the

unclaimed Trinidad Lake individuals and associated objects. In addition, repatriation and reburial efforts are ongoing between the USACE and tribal governments.

2.3.4.7 Built Environment and Historic Properties

In addition to the archaeological sites on the USACE fee land and within the vicinity of USACE land, Trinidad Lake contains and manages some historic properties.

2.3.4.8 Trinidad Dam

The construction of Trinidad Dam and Reservoir, which was completed in 1977, has had a significant impact on the communities in the area. Trinidad Dam will be evaluated for eligibility for the NRHP in 2027.

2.3.4.9 The Reilly Canyon Bridge

The Reilly Canyon Bridge spans Reilly Creek as part of an abandoned segment of Colorado Hwy 12. It includes three separate spans over the creek and a large single span overpass for the Denver & Rio Grande Railroad. It was constructed in 1936 by the Works Progress Administration (WPA) and has rock-faced masonry and beaded mortar joints characteristic of WPA construction in southeastern Colorado. The Reilly Canyon Bridge is listed on the Colorado State Register of Historic Places.

2.4 DEMOGRAPHIC AND ECONOMIC ANALYSIS

As a land and water resource, Trinidad Lake affects and is affected by local and regional demographics and economics. The following information covers the current demographic and economic data for communities within Trinidad Lake's Zone of Interest. This basic information gives a snapshot of the current population and looks at growth trends for the area.

2.4.1 Zone of Interest

Located near the borders of Colorado and New Mexico, the zone of interest (ZOI) for the socio-economic analysis of Trinidad Lake includes the Colorado counties of El Paso, Huerfano, Las Animas, and Pueblo as well as the New Mexico's Colfax County. There are also many visitors from Texas, but there are no specific counties associated with visitation. Therefore, only the five listed counties will be analyzed.

2.4.2 Population

The total population for the ZOI in 2021 was 941,213, as shown in Table 2.8. Approximately 78% of the population resides in El Paso County, CO, 18% in Pueblo County, CO, The remaining counties in the ZOI each account for less than 3% of the ZOIs population.

Table 2.8 Population Estimates for 2021 and 2021 and 2040 Projections

Geographical Area	2000	2010	2020 Population Estimate	2021 Population Estimate	2040 Population Projection
Colorado	4,301,261	5,029,196	5,773,714	5,812,069	7,073,418
New Mexico	1,819,046	2,059,179	2,117,522	2,115,877	2,137,442
El Paso County, CO	516,929	626,928	710,499	737,867	937,207
Huerfano County, CO	7,862	6,711	6,820	6,787	5,702
Las Animas County, CO	15,207	15,507	14,555	14,531	13,016
Pueblo County, CO	141,472	159,063	168,162	169,622	187,534
Colfax County, NM	14,189	13,750	12,387	12,406	7,313
Zone of Interest	695,659	821,959	912,423	941,213	1,150,772

Source: U.S. Census Bureau, Population Division (2000 Estimate); U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

From 2021 to 2040, the population in the ZOI is expected to increase from 695,659 to approximately 1,150,772, an average annual growth rate of 2.5%. By comparison, the populations of Colorado are expected to increase at an annual rate of 1.02%. During this timeframe, all counties within the ZOI are expected to experience growth. Population for the years 2000 and 2010 are included for historical reference. The distribution of the population among gender, as shown in Table 2.9 is approximately 51% male and 49% female in the ZOI.

Table 2.9 Percent of Population Estimate by Gender 2021

Geographical Area	Male	Female
Colorado	2,943,037	2,869,032
New Mexico	1,052,355	1,063,522
Las Animas County, CO	7,647	6,884
Huerfano County, CO	3,470	3,317
Pueblo County, CO	83,908	85,714
El Paso County, CO	374,764	363,103
Colfax County, NM	6,254	6,152
Zone of Interest	476,043	465,170

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

Figure 2.11 shows the population by age group for the states of Colorado, New Mexico, and the entire ZOI. The ZOI has a slightly larger population ages 20 to 24 and 25 to 29 when compared to the states of Colorado and New Mexico. All other age groups are similar in populations.

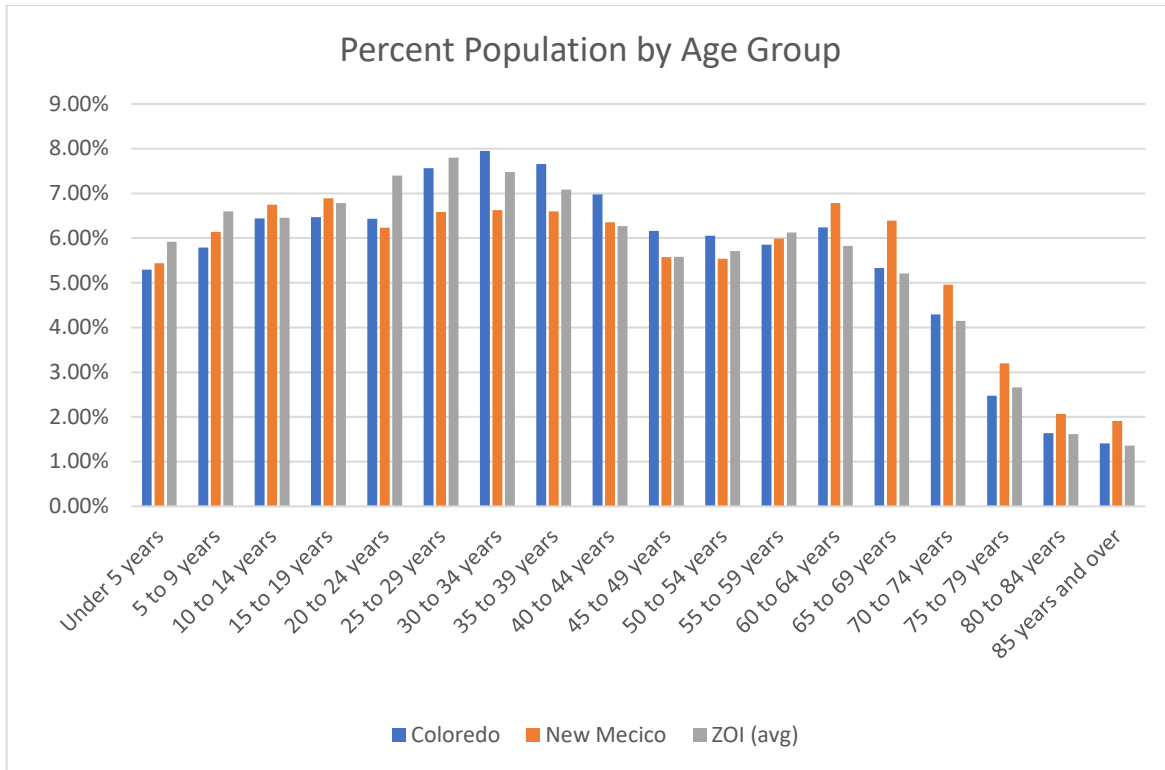


Figure 2.11 Percent of Population by Age Group, 2021.

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

Population by race is displayed in Table 2.10. The ZOI is approximately 63% White, 23% Hispanic or Latino, 5% Black and 5.7 % two or more races. The other race categories each account for 3% or less. By comparison, the population in the state of Colorado is 66% White, 22% Hispanic or Latino, 4% Black, 0.58% American Indian or Alaskan Native, 4.5% two or more races, and 3.38% Asian. The state of New Mexico race makeup is 36% White, 48% Hispanic or Latino, 1.8% Black, 9% American Indian or Alaskan Native, 2.8% two or more races, and 1.7% Asian.

Table 2.10 2021 Population Estimate by Race/Hispanic Origin

Area	White	Hispanic or Latino	Black	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Two or more races
Colorado	3,760,663	1,263,390	221,310	33,768	195,220	9,005	29,560	260,798
New Mexico	772,952	1,010,811	38,330	188,610	35,261	1,451	10,340	59,767
Las Animas County, CO	7,965	5,632	183	145	108	12	87	423
Huerfano County, CO	4,231	2,130	53	77	24	0	49	256
Pueblo County, CO	85,527	69,921	2,995	1,246	1,562	138	944	5,829
El Paso County, CO	480,484	129,984	40,759	3,816	21,629	2,750	4,599	46,374
Colfax County, NM	5,954	5,878	25	108	60	11	39	312
Zone of Interest	584,161	213,545	44,015	5,392	23,383	2,911	5,718	53,194

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

2.4.3 Education and Employment

Table 2.11 displays the highest level of education attained by the population ages 25 and over. In the zone of interest, 1.5% of the population has less than a 9th grade education, and another 1.8% has between a 9th and 12th grade education; 10 % has a high school diploma or equivalent, and another 12% has some college and no degree; 5% has an Associate degree; 12% has a bachelor's degree, and 7% has a graduate or professional degree. In Colorado, 1.6% of the population has less than a 9th grade education; another 2.1% has between a 9th and 12th grade education; 10% has at least a high school diploma or equivalent; 10% has some college; 4% has an Associate degree; 14% has a bachelor's degree; and 9% has a graduate or professional degree. In New Mexico, 2.5% of the population has less than a 9th grade education; another 3.7 % has between a 9th and 12th grade education; 13% has at least a high school diploma or equivalent; 11% has some college; 5% has an Associate degree; 8% has a bachelor's degree; and 7% has a graduate or professional degree.

Table 2.11 2021 Population Estimate by Highest Level of Educational Attainment, Population 25 Years of Age and Older

Area	Population 25 years and over	Less than 9th grade	9th to 12th grade, no diploma	High school graduate (includes equivalency)	Some college, no degree	Associate degree	Bachelor's degree	Graduate or professional degree
Colorado	4,044,182	135,031	170,943	814,373	793,438	334,157	1,107,309	688,931
New Mexico	1,450,549	73,938	107,656	372,497	328,792	131,736	231,745	204,185
Las Animas County, CO	10,655	551	708	2,830	3,140	1,429	1,252	745
Huerfano County, CO	5,113	209	195	1,335	1,544	535	840	455
Pueblo County, CO	117,286	5,238	6,940	32,409	27,497	14,020	20,858	10,324
El Paso County, CO	486,985	12,921	14,688	89,198	116,467	50,871	122,777	80,063
Colfax County, NM	9,205	298	655	2,907	2,445	894	1,164	842
Zone of Interest	629,244	19,217	23,186	128,679	151,093	67,749	146,891	92,429

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

Employment by sector is presented in Figure 2.12 and Table 2.12 shows that the largest percentage of the ZOI is employed in the educational services, and health care and social assistance sector at 24%, followed by 14% in professional, scientific, and management, and administrative and waste management services; 11% in retail trade, 9.5% in arts, entertainment, and recreation, and accommodation and food services; 7.3% in construction, 7% in finance and insurance, and real estate and rental

and leasing. The remainder of the employment sectors each comprise 6% or less of the ZOI's labor force.

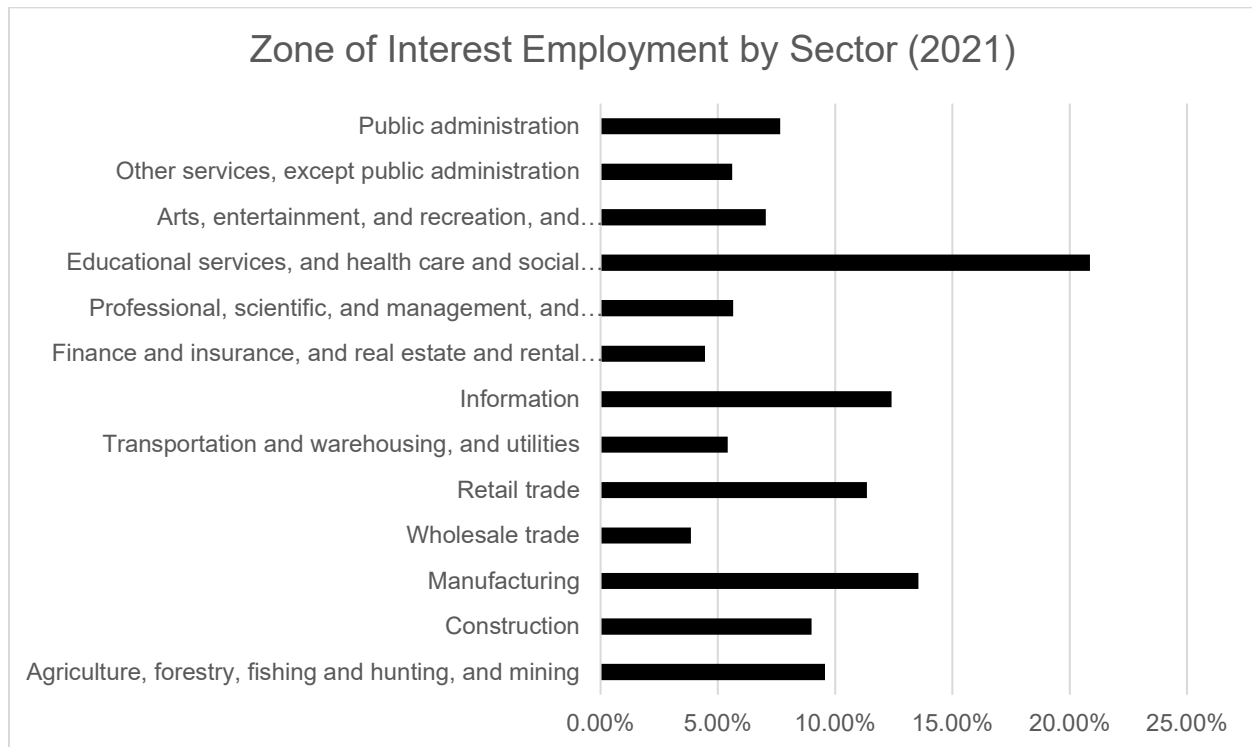


Figure 2.12 Zone of Interest Employment by Sector (2021)

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

Table 2.12 Annual Average Employment by Sector (2021)

Employment Sector	Geographic Area						
	Colorado	New Mexico	Las Animas County, CO	Huerfano County, CO	Pueblo County, CO	El Paso County, CO	Colfax County, NM
Civilian employed population 16 years and over	3,002,106	878,606	5,855	2,379	69,718	340,796	4,917
Agriculture, forestry, fishing and hunting, and mining	52,752	34,482	519	187	1,278	1,736	240
Construction	243,456	63,040	433	212	3,929	26,224	288
Manufacturing	210,645	34,904	191	137	4,110	20,437	257
Wholesale trade	71,076	15,884	83	38	1,104	5,978	82
Retail trade	323,595	91,606	615	266	8,429	38,261	779
Transportation and warehousing, and utilities	154,005	45,778	308	50	5,149	14,507	227
Information	74,000	10,809	88	76	400	7,084	54
Finance and insurance, and real estate and rental and leasing	224,524	41,529	263	11	2,612	25,811	334
Professional, scientific, and management, and administrative and waste management services	453,518	118,736	453	215	6,475	50,968	273
Educational services, and health care and social assistance	655,227	227,048	1,384	468	19,707	80,168	917
Arts, entertainment, and recreation, and accommodation and food services	251,379	81,181	739	324	6,109	31,992	794
Other services, except public administration	149,546	39,531	295	113	4,047	20,257	281
Public administration	138,383	74,078	484	282	6,369	17,373	391

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

A summary of the civilian labor force in the zone of interest is displayed in Table 2.13. In 2021, the zone of interest had an unemployment rate of 5.96 %, slightly higher than the 5.30% unemployment rate in Colorado and a 1.84% lower rate than New Mexico.

Table 2.13 Labor Force, Employment and Unemployment Rates, 2021 Annual Averages

Geographic Area	Civilian Labor Force	Number Employed	Number Unemployed	Unemployment Rate %
Colorado	3,170,677	3,002,106	168,571	5.30
New Mexico	953,327	878,606	74,721	7.80
Las Animas County, CO	6,319	5,855	464	7.30
Huerfano County, CO	2,512	2,379	133	5.30
Pueblo County, CO	74,650	69,718	4,932	6.60
El Paso County, CO	363,396	340,796	22,600	6.20
Colfax County, NM	5,141	4,917	224	4.40
Zone of Interest	452,018	423,665	28,353	5.96

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021) (2021 averages)

2.4.4 Households, Income, Poverty

Table 2.14 displays the number of households and average household size in the state and zone of interest. In 2021, there were approximately 366,774 households in the ZOI with an average household size of 2.33.

Table 2.14 2021 Households and Household Size

Area	Total Households	Average Household Size
Colorado	2,313,042	2.46
New Mexico	834,007	2.49
Las Animas County, CO	6,410	2.17
Huerfano County, CO	2,744	2.42
Pueblo County, CO	69,078	2.39
El Paso County, CO	282,904	2.54
Colfax County, NM	5,638	2.11
Zone of Interest	366,774	2.33

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

The median household income in the zone of interest ranged from \$79,427 in El Paso County, CO to \$39,483 in Colfax County, NM in 2021, as displayed in Table 2.15. Per capita average income in the zone of interest was \$29,599 in 2021, lower than both the state of Colorado (\$44,617) and New Mexico (\$31,043).

Table 2.15 Median and Per Capita Income 2021

Geographic Area	Median Household Income (All)	Per Capita Income
Colorado	82,254	44,617
New Mexico	53,992	31,043
Las Animas County, CO	45,118	26,521
Huerfano County, CO	45,724	26,111
Pueblo County, CO	56,689	31,124
El Paso County, CO	79,427	39,110
Colfax County, NM	39,483	25,131
Zone of Interest Median (Avg)	53,288	29,599

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year (2016-2021)

Table 2.16 displays the percentage of persons and families whose incomes fell below the poverty level in the past twelve months as of 2021. Within the zone of interest, Huerfano County, CO had the greatest share of people with incomes below the poverty level at 14.2%, followed by Colfax, County, NM at 13.2%. In terms of families below the poverty level, all counties in the zone of interest have a greater share with incomes below the poverty level when compared to the state of Colorado except for Huerfano County, CO which is equal at 14.2%. The state of New Mexico outpaces all counties within the ZOI with families below the poverty level with 14.30 %.

Table 2.16 Percent of Families and People whose Income in the Past 12 Months is Below the Poverty Level (2021)

Geographic Area	All Persons	All Families
Colorado	9.70	6.20
Las Animas County, CO	21.10	13.10
Huerfano County, CO	17.60	14.20
Pueblo County, CO	16.30	12.50
El Paso County, CO	9.60	6.30
Colfax County, NM	19.60	13.20
Zone of Interest (Avg)	16.84	11.86

Source: U.S. Census Bureau, 2021 American Community Survey 5-Year Estimates

2.4.5 Social, Environmental and Environmental Benefits

USACE recognized the importance of Trinidad Lake and the activities on USACE lands and waters as being an important part of the local economy. Besides the obvious economic savings through flood risk management and development advantages through water supply, businesses can see investment opportunities, and people are drawn to the natural areas surrounding USACE lakes, as is evidenced by the growing number of residents adjacent to USACE properties. Nationally, USACE lakes attract about 335 million recreation visits every year, with direct economic benefits on local economies within a 30-mile radius.

Nationwide, the USACE Flood Risk Management infrastructure, which includes Trinidad Lake, includes approximately 715 dams and 4,100 miles of levees, which help to reduce the risk of flood damage throughout the nation. In 2019, the Albuquerque District's Tables 2.17 through 2.19 summarize Trinidad Lake's added recreation-related value to our nation.

Table 2.17 Social Benefits 2019

Facilities in FY 2019	
<ul style="list-style-type: none">• 7 Recreation areas• 19 Picnic sites• 79 Camping sites• 1 Playground	<ul style="list-style-type: none">• 6 Trails• 11 Trail miles• 1 Boat ramp
Visits (person-trips) in FY 2019	
<ul style="list-style-type: none">• 201,331 Total visits• 30,105 Picnickers• 37,216 Campers/overnight visitors• 64,530 Swimmers• 39,073 Walkers/hikers/joggers	<ul style="list-style-type: none">• 14,429 Boaters• 36,306 Sightseers• 17,017 Anglers• 3,758 Special event attendees• 9,543 Others
Benefits in Perspective	
<p>By providing opportunities for active recreation, USACE lakes help combat one of the most significant of the nation's health problems: lack of physical activity.</p> <p>Recreational programs and activities at USACE lakes also help strengthen family ties and friendships; provide opportunities for children to develop personal skills, social values, and self-esteem; and increase water safety.</p>	

Table 2.18 Economic Benefit 2019

Economic Data in FY 2019
<p>Visitation per year resulted in:</p> <ul style="list-style-type: none"> • \$ 6,302,940 in visitor spending within 30 miles of USACE lakes • \$ 2,914,767 in sales within 30 miles of USACE lakes • 50 jobs within 30 miles of USACE lakes • \$ 1,279,094 in labor income within 30 miles of USACE lakes • \$ 1,668,854 in value added within 30 miles of USACE lakes • \$ 1,769,503 in National Economic Development Benefits <p>With multiplier effects, visitor trip spending resulted in:</p> <ul style="list-style-type: none"> • \$ 3,876,411 in total sales • 59 jobs • \$ 1,563,477 in labor income • \$ 2,184,418 in value added (wages & salaries, payroll benefits, profits, rents, and indirect business taxes)
Benefits in Perspective
<p>The money spent by visitors to USACE lakes on trip expenses adds to the local and national economies by supporting jobs and generating income. Visitor spending represents a sizable component of the economy in many communities around USACE lakes.</p>

Table 2.19 Environmental Benefit 2019

Resources Data in FY 2019
<p>2,732 Land acres 633 Water acres 11 Shoreline miles</p>
Benefits in Perspective
<p>Recreation experiences increase motivation to learn more about the environment; understanding and awareness of environmental issues; and sensitivity to the environment.</p>

Source: <https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll2/id/5651>

2.5 RECREATION FACILITIES, ACTIVITIES, AND NEEDS

2.5.1 Zone of Influence and Visitation Statistics

Trinidad Lake provides recreation primarily for the residents of Colorado, but also receives visitors from Texas, Oklahoma, Kansas, and New Mexico. Under normal rainfall conditions, Trinidad Lake provides an average water surface of approximately 633 acres during the peak recreational boating season of June through September.

2.5.2 Visitation Profile

Most visitors to Trinidad Lake travel from within a 200-mile radius, which include the major cities of Denver (201 miles), Pueblo (89 miles), and Colorado Springs (131 miles), Colorado; Albuquerque (252 miles), New Mexico; and Amarillo (237 miles), Texas. These visitors are a diverse group of people with a wide range of interests: campers who utilize the campgrounds around the lake (which is operated by CPW), fisherman, and day users who use the facilities for picnics, hikes, nature and bird watching, and bicycling. Trinidad Lake is also a significant resource for water recreation activities such as boating, sailing, canoeing, kayaking, and water skiing.

On average from 2018 through 2022, Trinidad Lake has hosted 222,245 visits from the public per year, with the peak visitation months running from May through September, which is considered the recreation season. Table 2.20 depicts yearly visitation from 2018 through 2022. Notably, visitation remained strong during the Covid-19 pandemic, when many of the parks throughout the nation experienced limited visitation.

Table 2.20 Trinidad Lake Yearly Visitation

Year	2018	2019	2020	2021	2022	Average
Jan	5,588	4,760	5,407	8,700	4,370	5,765
Feb	4,865	2,825	6,296	8,574	8,103	6,133
Mar	9,666	9,067	12,322	16,224	11,644	11,785
Apr	11,759	21,900	10,207	23,522	15,948	16,667
May	26,798	21,444	25,753	28,961	23,498	25,291
Jun	26,276	25,687	40,759	36,255	36,212	33,038
Jul	35,730	46,771	48,507	45,214	39,594	43,163
Aug	24,835	25,061	34,647	32,117	26,691	28,670
Sep	21,568	17,044	28,694	19,524	19,401	21,246
Oct	9,708	20,858	20,688	16,959	16,918	17,026
Nov	5,336	4,106	11,990	9,774	6,544	7,550
Dec	4,351	1,808	7,381	9,538	6,478	5,911
Total	186,480	201,331	252,651	255,362	215,401	222,245

Source: CPW

Trinidad Lake provides opportunity for active recreation, and by doing so, helps increase quality of life and promotes a healthy lifestyle. Recreational programs and activities at Trinidad Lake, as across all USACE lakes, help strengthen family ties and friendships; provide opportunities for children to develop personal skills, social values, and self-esteem; and increase awareness of water safety. As noted in Figure 2.17, Trinidad Lake visitors engaged in outdoor recreation activities primarily for walking, hiking, sightseeing, and picnicking.

2.5.3 Recreation Areas and Facilities

All recreation at Trinidad Lake is managed by CPW. The Lake offers many recreational activities such as boating, biking, individual and group camping and picnicking, cross-country skiing, fishing including ice fishing, horseback riding, jet and water skiing, hunting, snowshoeing, geocaching, archery, and volleyball, not to mention and abundance of wildlife viewing opportunities. Of great importance to the Lake's Zone of Interest are the existing and future recreational opportunities. Tables 2.21 lists the various recreational facilities Trinidad Lake, which are all managed by CPW. Each recreational area is more specifically described in Chapter 5.

Table 2.21 Recreational Facilities at Trinidad Lake

Park Name/Facilities Provided	Acres	Designated Campsites	Play/Sports Fields	Parking	Picnic Areas	Trails/Trailheads	Boat Ramps	Restrooms	Drinking Water
Archery Range	-	-	-	-	-	-	-	-	-
Carpitos Ridge Recreation Area	143	*	*	*	*	*	-	*	*
Longs Canyon	100	-	-	*	-	*	-	-	-
Overlook Day Use Area	10	-	-	*	*	*	-	*	
Piedmont Recreation Area	30	*	*	*	*	-	-	*	*
Reilly Canyon Recreation Area	400	-	*	*	-	*	-	*	-
Southside Recreation Area	318	*	-	*	-	*	-	*	-
Trinidad Recreation Area (boat ramp area)	102	-	-	*	*	-	*	*	-

As noted in the SCORP and reflected in comments received during the public input portion of the Trinidad Master Plan development, trails are in high demand opportunities. Table 2.22 list the trails and trail uses at Trinidad Lake, which are all managed by CPW.

Table 2.22 Hiking, Cycling, Equestrian, and Interpretive Trails at Trinidad Lake

Park Name/Facilities Provided	Miles	Hiking	Cycling	Equestrian	Interpretive
Carpio's Cove Trail	0.5	*	-	-	*
Levsa Self-Guided Trail	1	*	-	-	*
Long Canyon Trail	0.75	*	-	-	*
Park View Trail	0.6	*	-	-	*
Reilly Canyon Trail	4	*	*	-	*
South Shore Trail	2.5	*	*	*	*
Sunset Point Trail	1	*	-	-	*

2.5.4 Recreational Analysis - Trends

Recreation at Trinidad Lake remains strong and continues to evolve, offering a wide variety of recreational opportunities for visitors. Unfortunately, as the population of Colorado grows, the amount of land available for recreation and wildlife declines per capita, making resources at Trinidad Lake even more precious. Information from the 2019 Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP), a comprehensive recreational study completed and published by CPW, was used to analyze the gap between what is offered at Trinidad Lake and what is needed.

Outdoor recreation is popular across Colorado, bringing an estimated 84.7 million US-based travelers and one million international travelers in 2017. Recreation in Colorado resulted in approximately \$62.5 billion in economic output, \$9.4 billion in local, state, and federal tax revenue, and 511,000 jobs in the state (18.7% of the labor force). The SCORP identifies four priority areas of focus for the years covering 2020-2025: Sustainable Access and Opportunity; Stewardship; Land, Water, and Wildlife Conservation; Funding the Future. These four areas of focus are directly associated with the mission and goals of USACE and CPW.

The SCORP identified several activities that those surveyed stated were important to them for outdoor recreation. Consistent with the 2014 SCORP, the public is interested in local walking trails/paths, opportunities for wildlife viewing, and established playgrounds built with natural materials. The top three activities in the Southeast district

where Trinidad Lake lies are walking, RV camping/cabins, and fishing. Table 2.23 list the top ten activities that were consistent throughout the state.

Table 2.23 Top 10 Outdoor Recreation Activities for Colorado

Recreation Activities	Number of Participate
*Walking	3,193,283
Hiking/Backpacking	2,257,282
Picnicking and Tent Camping	1,389,271
*Fishing	1,266,888
Playground Activities	1,248,757
Running or Jogging Outdoors	1,228,360
Skiing (alpine/tele)/Snowboarding	1,205,697
Wildlife Viewing (bird watching was a separate category)	1,162,636
*RV Camping/Cabins	1,137,706
Team or Individual Sports	1,071,982

*Top Three for the Colorado Southeast Tourism District Source: 2019 SCORP and 2020 CPW Outdoor Recreation Report

As stated, recreation results in considerable economic resources for the State of Colorado. Table 2.24 lists the top 15 recreation activities based on annual spending.

Table 2.24 Top 15 Activities in Colorado Based on Annual Spending.

Recreation Activity
Skiing (alpine/tele)/Snowboarding
Hiking/Backpacking
Tent Camping
RV Camping/Cabins
Running or Jogging Outdoors
Wildlife Viewing (bird watching was a separate category)
Fishing
Off-Highway Vehicle or 4-Wheeling/Motorcycle
Snowshoeing/Cross Country Skiing
Horseback Riding
Mountain Biking
Rock Climbing
Golfing
Canoeing/Kayaking

Source: Colorado SCORP

In addition to population growth, climate change presents significant threats to recreation in Colorado. Earlier snowmelt and runoff time, increased frequency and severity of wildfire, climate conditions that are more favorable to generalist wildlife species that specialist species, and rising stream temperatures and declining stream

levels affect wildlife and human populations alike (2020 CPW Outdoor Recreation Report). Trinidad Lake, with its missions of flood risk management, recreation, and environmental stewardship, helps to mitigate some of these challenges.

2.5.5 Recreation Analysis – Needs

Trinidad Lake offers an array of recreational opportunities which are balanced with the primary missions of the Lake, which is flood risk management, irrigation water supply, and the inherent mission of environmental stewardship. Public comment received from the initial public scoping meeting for the Master Plan indicates that there is a desire for additional walking-hiking-cycling trails and the addition of a swim beach at Trinidad Lake. USACE relies on partnerships for recreational amenities and as time, partnerships, and budgets allow, will integrate more facilities to accommodate the public.

2.5.6 Recreational Carrying Capacity

USACE considers recreational carrying capacity to ensure that natural resources are not irreparably damaged and that visitors have a high quality and safe recreational experience. The carrying capability of the land is determined by distinct characteristics of the site (both natural and man-made) and constraints are developed that often determine the type of facilities that are or should be provided. Based upon the carrying capacity of the land, the plan formulated below provides a variety of activities that optimize use of present and future public areas, where possible.

USACE uses historic visitation data combined with best professional judgment to manage recreation areas to determine if they are well-balanced, overcrowded, overused, or underused. For USACE to have facilities that provide for diverse demographics (age and recreation interests, for example) USACE will continue to identify possible causes and effects of overcrowding, overuse, or underuse and apply appropriate best management practices (including site management, regulating visitor behavior, and modifying visitor behavior).

CHAPTER 3: RESOURCE GOALS AND OBJECTIVES

3.1 INTRODUCTION

This chapter sets forth goals and objectives necessary to achieve the USACE vision for the future of Trinidad Lake. In the context of this Master Plan, “goals” express the overall desired end-state of the Master Plan whereas resource “objectives” are specific task-oriented actions necessary to achieve the overall Master Plan goals. The Master Plan resource objectives will be used as the basis for the Operational Management Plan (OMP), which is the Master Plan strategic implementation plan.

3.2 RESOURCE GOALS

The following statements, paraphrased from *EP 1130-2-550*, Chapter 3, express the goals for the Trinidad Lake Master Plan:

- GOAL A.** Provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes.
- GOAL B.** Protect and manage project natural and cultural resources through sustainable environmental stewardship programs.
- GOAL C.** Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining project natural resources.
- GOAL D.** Recognize the unique qualities, characteristics, and potentials of the project.
- GOAL E.** Provide consistency and compatibility with national objectives and other State and regional goals and programs.

In addition to the above goals, USACE management activities are guided by USACE-wide Environmental Operating Principles (EOPs) as follows:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse, and sustainable condition is necessary to support life.
- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of USACE programs and act accordingly in all appropriate circumstances.
- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.

- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seek ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.
- Respect the views of individuals and groups interested in USACE activities; listen to them actively and learn from their perspective in the search to find innovative win-win solutions to the nation's problems that also protect and enhance the environment.

3.3 RESOURCE OBJECTIVES

Resource objectives are clearly written statements that respond to identified issues and that specify measurable and attainable activities for resource development and/or management of the lands and waters under the jurisdiction of the Albuquerque District, Trinidad Lake Project Office. The objectives stated in this Master Plan support the goals of the Master Plan, USACE EOPs, and applicable national performance measures. They are consistent with authorized project purposes, Federal laws and directives, regional needs, resource capabilities, and they consider public input. Recreational and natural resources carrying capacities are also accounted for during development of the objectives found in this Master Plan. The Regional and State planning documents, including the Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP), were also reviewed and used in the development of recreational resources.

The objectives in this Master Plan provide project benefits, meet public needs, and foster environmental sustainability for Trinidad Lake to the greatest extent possible. They include recreational objectives; natural resource management objectives; visitor information; education and outreach objectives; general management objectives; and cultural resource management objectives. Tables 3.1 through 3.5 list the objectives along with the associated goal(s) each objective addresses, indicated by an asterisk in the Goals A-E as defined in Section 3.2.

Trinidad Lake leases out a large portion of fee land for recreation purposes. The objectives below are intended to support USACE objectives, however, coordination with the lessee is recommended while striving to accomplish each objective. Depending on the selected lessee, roles can shift based on the language within the real estate agreement. USACE and the lessee should work closely together to achieve common goals and objectives.

Table 3.1 Recreational Objectives

Recreational Objectives	Goals				
	A	B	C	D	E
Evaluate the demand for improved recreation facilities and increased public access on USACE-managed public lands and water for recreational activities (i.e. camping, walking, hiking, biking, boating, fishing, wildlife viewing, etc.) and facilities (i.e. campsites, picnic facilities, overlooks, all types of trails, boat ramps, courtesy docks, interpretive signs/exhibits, and parking lots). USACE and the current recreation lessee will coordinate on future improvements of recreational areas based on demand.	*		*		
Monitor the condition and quality of day use and campground facilities within the USACE as well as leased areas including, but not limited to roads, sewer hook ups, potable water systems, electrical service, concrete or asphalt recreational vehicle pads, tent pads, restrooms, trails, pavilions, and park entrances.	*		*		
Monitor public use and evaluate potential impacts from overuse and crowding. Take action to prevent/remediate overuse, conflict, and public safety concerns.	*		*		
Evaluate recreational use zoning and regulations for designated quiet water or no-wake areas with emphasis on natural resource protection, quality recreational opportunities, and public safety concerns.	*				
Follow the Environmental Operating Principles associated with recreational use of waterways for all water-based management activities and plans.		*	*		*
Coordinate with lessee to identify and increase universally accessible facilities.	*		*		*
Consider flood/conservation pool levels to address potential impact to recreational facilities (i.e. campsites, boat ramps, courtesy docks, aquatic nuisance species, etc.).	*	*	*	*	
Consider long-term sustainable operational and maintenance costs when planning future recreational facilities or upgrading and expanding existing facilities.					
Ensure consistency with USACE Recreation Strategic Plan.					*
Monitor the SCORP and adjacent municipality plans to insure that USACE is responsive to outdoor recreation trends, public needs, and resource protection within a regional framework. All plans by others will be evaluated considering USACE policy and operational aspects of Trinidad Lake.					*

Table 3.2 Natural Resource Management Objectives

Natural Resource Management Objectives	Goals				
	A	B	C	D	E
Consider flood/conservation pool levels to ensure that natural resources are managed in ways that are compatible with primary project purposes of flood risk management and irrigation.	*	*		*	
Ensure project lands are managed with enhancement and conservation of natural habitat as a primary objective in order to maintain the public open space.	*			*	
Collaborate with partners to actively manage and conserve fish and wildlife resources, especially special status species, by implementing ecosystem management principles, including the use of native species adapted to the ecological region in restoration and mitigation plans.	*	*		*	*
Consider a watershed approach during decision-making processes.					*
Optimize resources, labor, funds, and partnerships for protection and restoration of fish and wildlife habitats.		*			*
Minimize activities that detract from the scenic beauty and aesthetics of the lake.	*	*	*	*	
Continually evaluate erosion control and sedimentation issues at Trinidad Lake and develop alternatives to resolve the issues.	*	*			*
In coordination with lessee, address unauthorized uses of public lands such as off-road vehicle use, trash dumping, unauthorized fires, fireworks, poaching, clearing of vegetation, unauthorized trails and paths, and placement of advertising signs that create negative environmental impacts.	*	*	*	*	*
Monitor lands and waters for invasive, non-native, and aggressively spreading native species and work with partners to take action to prevent and/or reduce the spread of these species. Examples of invasive species of great concern are salt cedar, Russian thistle, and kochia.	*	*		*	*
Protect and/or restore important native habitats such as prairie, riparian zones, and wetlands, where they occur, or historically occurred on project lands. Special emphasis should be given to protect and/or restore special or rare plant communities, to include actions that promote butterfly and/or pollinator habitat, migratory bird habitat, and habitat for birds listed by USFWS as Birds of Conservation Concerns. Some of these habitats may be designated as Environmentally Sensitive Areas.	*	*	*	*	*

Table 3.3 Visitor Information, Education and Outreach Objectives

Visitor Information, Education and Outreach Objectives	Goals				
	A	B	C	D	E
Provide more opportunities for communication with agencies, special interest groups, and the general public (i.e. comment cards, updates to City Managers, web page, etc.)	*			*	*
Implement more educational, interpretive, and outreach programs. Topics to include: history, lake operations (flood risk management and water supply), water safety, recreation, nature, cultural resources, ecology, and USACE missions.	*	*	*	*	*
Enhance network among local, state, and federal agencies in order to exchange lake-related information for public education and management purposes.	*			*	*
Increase public awareness of permits or other authorizations required for special activities, organized events, and commercial activities on public lands and waters of the lake.	*	*	*		
Capture trends concerning boating accidents and other incidents on public lands and waters and coordinate data collection with other public safety officials.	*		*	*	*
Promote USACE water safety message.	*		*	*	*

Table 3.4 General Management Objectives

General Management Objectives	Goals				
	A	B	C	D	E
Resurvey and maintain the public lands boundary line to ensure it is clearly marked and recognizable in all areas to reduce habitat degradation and encroachment actions.	*	*		*	
Ensure consistency with USACE Campaign Plan (national level), IPlan (regional level), OPlan (District level).					*
Ensure green design, construction, and operation practices, such as the Leadership in Energy and Environmental Design (LEED) criteria for government facilities, are considered as well as applicable Executive Orders.					*
Carefully manage non-recreation outgrants such as utility and road easements in accordance with national guidance set forth in <i>ER-1130-2-550</i> and applicable chapters in <i>ER 405-1-12</i> . Designate and manage utility corridors as a management tool to reduce habitat fragmentation.	*	*			*

General Management Objectives	Goals				
Manage project lands and recreational programs to “meet such statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment as set forth in <i>Executive Order 13693</i> and related USACE policy.					*

Table 3.5 Cultural Resources Management Objectives

Cultural Resources Management Objectives	Goals				
	A	B	C	D	E
Monitor and coordinate lake development and the protection of cultural resources with appropriate entities, in accordance with the Trinidad Historic Preservation Management Plan.	*	*		*	*
Complete an inventory of cultural resources as funds are available.	*	*		*	*
Increase public awareness and education of regional history.		*		*	*
The project office will ensure any current or future historical preservation is fully integrated into the Trinidad Lake Master Plan and planning decision making process (Section 106 and 110 of the NHPA, the Archeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act) on public lands surrounding the lake.		*		*	*
Develop partnerships that promote and protect cultural resources at Trinidad Lake.		*	*	*	*
Stop unauthorized use of public lands as it pertains to the illegal excavation and removal of cultural resources.		*		*	*

CHAPTER 4: LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS

4.1 LAND ALLOCATION

Land allocations, unlike classifications, are assigned at the time of land purchase and do not change unless authorized by congress. All lands at USACE water resource development projects are allocated by USACE into one of four categories in accordance with the congressionally authorized purpose for which the project lands were acquired. These allocation categories are Operations, Recreation, Fish and Wildlife, and Mitigation. At Trinidad Lake, of the 3,509 acres of land acquired, 3,144 were allocated as Operations and 365 acres were purchased as Recreation. The Operations allocation is defined as those lands that are required to operate the project for the primary authorized purposes of flood risk management, water supply, recreation, water quality, and fish and wildlife. Lands purchased for the specific purpose of recreation are considered separable recreation lands and are allocated so. The remaining allocations of Fish and Wildlife or Mitigation would apply only if lands had been acquired specifically for these purposes.

4.2 LAND CLASSIFICATION

The 1975 Trinidad Lake Master Plan predicted land uses and designated land classifications for fee lands, which are similar to the current classifications. However, the actual use experienced since that time resulted in some areas being classified for a type of use that has not nor is not likely to occur. Wildlife habitat values, surrounding land use, regulations, and regional recreation trends have changed, giving rise to the need for revised classifications. Table 8.1 and 8.2 in Chapter 8 provide a summary and discussion of land classification changes for Trinidad Lake.

4.2.1 Current Land and Water Surface Classifications

USACE regulations require project lands and waters to be classified in accordance with the primary use for which project lands are managed. There are six categories of classification identified in USACE regulations, including:

- Project Operations
- High Density Recreation
- Mitigation
- Environmentally Sensitive Areas
- Multiple Resource Management Lands
- Water Surface

The land and water surface classifications for Trinidad Lake were established after considering public comments and input from key stakeholders, including elected officials, city and county governments, and lessees operating on USACE land.

Additionally, information from the State Comprehensive Outdoor Recreation Plan (SCORP) including public comment, wildlife habitat values, and the trends analysis were used in decision making. Maps showing the various land classifications can be found in Appendix A. The following paragraphs provide acreages and descriptions of allowable uses for each of the land classifications.

4.2.2 Project Operations (PO)

The PO classification includes the lands managed for operation of the dam, project office, and maintenance yards, all of which must be maintained to carry out the authorized purpose of flood risk management. In addition to the operational activities taking place on these lands, limited recreational use may be allowed for activities such as public access to the fishing piers. Regardless of any limited recreation use allowed on these lands, the primary classification of Project Operations will take precedent over other uses. There are 131 acres of Project Operations land specifically managed for this purpose.

4.2.3 High Density Recreation (HDR)

HDR lands are developed for intensive recreational activities for the visiting public, including day use areas, campgrounds, marinas, and related concession areas. Recreational areas operated by lessees on USACE lands must follow policy guidance contained in USACE regulations at ER 1130-2-550, Chapter 16. That policy includes the following statement:

“The primary rationale for any future recreation development must be dependent on the project’s natural or other resources. This dependency is typically reflected in facilities that accommodate or support water-based activities, overnight use, and day use such as marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project’s natural or other resources include theme parks or ride-type attractions, sports or concert stadiums, and standalone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Normally, the recreation facilities that are dependent on the project’s natural or other resources, and accommodate or support water-based activities, overnight use, and day use, are approved first as primary facilities followed by those facilities that support them. Any support facilities (e.g., playgrounds, multipurpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, and boat repair facilities) must also enhance the recreation experience, be dependent on the resource-based facilities, and be secondary to the original intent of the recreation development...”

Lands classified for HDR are suitable for the development of comprehensive resorts. The regulation cited above defines Comprehensive Resort as follows:

“Typically, multi-faceted developments with facilities such as marinas, lodging, conference centers, golf courses, tennis courts, restaurants, and other similar facilities.”

At Trinidad Lake, prior land classifications included a number of areas under the HDR classification. Several of these areas were never developed and/or were determined by the study team to be unsuitable for development resulting in a change to another, more suitable land classification. There are 449 acres at Trinidad Lake classified as HDR, all of which are managed by the CPW. The brief description and resource management plan for each HDR area is described briefly in Chapter 5 and mapped in Appendix A.

4.2.4 Mitigation

The Mitigation classification is used only for lands allocated by congress for mitigation for the purpose of offsetting losses associated with the development of the project. There are no lands at Trinidad Lake with this classification.

4.2.5 Environmentally Sensitive Areas (ESA)

ESAs include scientific, ecological, cultural, and aesthetic features identified and in need of preservation. At Trinidad Lake, several distinct areas have been classified as ESA, primarily for the protection of sensitive habitats or cultural resources. Each of these areas is discussed in Chapter 5 of this Plan and mapped in Appendix A. There are 14 acres classified as ESA at Trinidad Lake.

4.2.6 Multiple Resource Management Lands (MRML)

This classification is divided into four sub-classifications: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. A given tract of land may be classified using one or more of these sub-classifications, but the primary sub-classification should reflect the dominant use of the land. Typically, MRMLs support only passive, non-intrusive uses with very limited facilities or infrastructure. Where needed, some areas may require basic facilities that include, but are not limited to, minimal parking spaces, a small boat ramp, and/or primitive sanitary facilities. There are 1,078 acres of land under this classification at Trinidad Lake. The following sections describes each sub-classification, the number of acres, and primary uses for each designation.

4.2.6.1 Low Density Recreation (LDR)

LDR lands support passive public recreational use (e.g., fishing, hunting, wildlife viewing, natural surface trails, hiking, etc.). There are 537 acres under this land classification at Trinidad Lake.

4.2.6.2 Wildlife Management (WM)

The WM land classification applies to lands managed primarily for the conservation of fish and wildlife habitat. These lands generally include comparatively large contiguous parcels of land for passive recreation uses such as natural surface trails, fishing, hunting, and wildlife observation, unless

restrictions are necessary to protect sensitive species or to promote public safety. There are 1,601 acres of land included in this classification at Trinidad Lake.

4.2.6.3 Vegetative Management (VM)

VM lands designated for stewardship of forest, prairie, and other native vegetative cover. Passive recreation activities previously described may be allowed in these areas. There are no acres of land included in this classification at Trinidad Lake.

4.2.6.4 Future or Inactive Recreation

Future or Inactive Recreation lands have site characteristics compatible with HDR development. These are areas where HDR development was anticipated in prior land classifications, but the development either never took place or was minimal. These areas are typically closed to vehicular traffic and are managed as MRDL until development takes place. There are no acres of land included in this classification at Trinidad Lake.

4.2.7 Water Surface

USACE regulations specify four possible classifications for the water surface, which are intended to promote public safety, protect resources, or protect project operational features such as the dam and spillway. These areas are typically marked by USACE or lessees with navigational or informational buoys, signs, or denotations on public maps and brochures. The four water surface classifications are described in the following sections, and the Water Surface Classification map can be found in Appendix A of this Plan. Future management of the water surface includes the maintenance of warning, information, and regulatory buoys as well as routine water safety patrols during peak use periods.

4.2.7.1 Restricted

The Restricted water surface includes those areas where recreational boating is prohibited or restricted for project operations, safety, and security purposes. There are 3 acres of restricted water surface at Trinidad Lake, which includes the water surface near the Trinidad Dam control tower.

4.2.7.2 Designated No-Wake

Designated No-Wake areas are intended to protect environmentally sensitive shorelines and improve boating safety near key recreational water access areas such as boat ramps. There is one boat ramp at Trinidad Lake, which requires no-wake restrictions for public safety and protection of property. There are 3 acres of designated no-wake water surface at Trinidad Lake.

4.2.7.3 Fish and Wildlife Sanctuary

The Fish and Wildlife Sanctuary water surface classification applies to areas with annual or seasonal restrictions to protect fish and wildlife species during periods

of migration, resting, feeding, nesting, and/or spawning. Trinidad Lake has no water surface areas designated as a Fish and Wildlife Sanctuary.

4.2.7.4 Open Recreation

Open Recreation includes all water surface areas available for year-round or seasonal water-based recreational use. This classification encompasses most of the lake water surface and is open to general recreational boating. Boaters are advised through maps, brochures, or signs about the presence of navigational hazards present at any time and at any location in these areas. Operation of a boat in these areas is at the owner's risk. Specific navigational hazards may or may not be marked with a buoy. There are 627 acres of Open Recreation water surface at Trinidad Lake.

Table 4.1 provides a summary of the revised land and water surface classifications at Trinidad Lake. Acreages were calculated by using GIS data, which are for planning purposes and may differ from the official land acquisition records. A map representing these areas can be found in Appendix A.

Table 4.1 Proposed Land Classification Acres at Trinidad Lake¹

Classification	Acres
Project Operations	131
High Density Recreation	449
Environmental Sensitive Areas	14
Multiple Resource Managed Lands - Low Density Recreation	537
Multiple Resource Managed Lands - Wildlife Management	1,601
Multiple Resource Managed Lands - Vegetative Management	0
Multiple Resource Managed Lands - Future/Inactive Recreation Areas	0
Water Surface: Restricted	3
Water Surface: Designated No-Wake	3
Water Surface: Fish and Wildlife Sanctuary	0
Water Surface: Open Recreation	627

Note: ¹Acreages were measured using GIS technology and may vary from the official land acquisition records.

4.3 PROJECT EASEMENT LANDS

Project Easement Lands are primarily lands on which easement interests were acquired. Fee title was not acquired on these lands, but the easement interests convey to the Federal government certain rights to use and/or restrict the use of the land for specific purposes. Easement lands are typically classified as Operations Easement, Flowage Easement, and/or Conservation Easement. At Trinidad Lake, Flowage Easement lands exist for one primary purpose. A flowage easement, in general, grants to the government the perpetual right to temporarily flood/inundate private land during flood risk management operations and to prohibit activities on the flowage easement that would interfere with flood risk management operations such as placement of fill material or construction of habitable structures. The flowage easements grant USACE the right to clear the area of potential navigation hazards such as fences, powerlines,

buildings, trees and other obstructions and to obtain construction material from the area if needed. There are 302 acres of Flowage Easement lands at Trinidad Lake.

4.4 RECREATIONAL SEAPLANE OPERATIONS

Seaplane restrictions are part of Title 36 Code of Federal Regulations. At Trinidad Lake and other USACE lakes across the nation, areas where recreational seaplane operations are prohibited were established through public meetings and environmental assessments circa 1980. Additionally, once the sea plane lands it is considered a watercraft and is required to abide by the watercraft rules and regulations established for Trinidad Lake. The closest public use seaplane base in Colorado is north of Trinidad Lake on Lake Meredith (Colorado Department of Transportation, 2023).

CHAPTER 5: RESOURCE PLAN

5.1 MANAGEMENT BY CLASSIFICATION

This chapter describes the management plans for each land use classification within the Master Plan. The classifications that exist at Trinidad Lake are Project Operations, High Density Recreation, Environmentally Sensitive Areas, and Multiple Resource Management Lands, which consist of Low Density Recreation and Wildlife Management. The Water Surface is divided into classifications of Restricted, No-Wake, and Open Recreation. The management plans describe how these project lands and water surface will be managed in broad terms. A more descriptive plan for managing these lands can be found in the Trinidad Lake OMP.

5.2 PROJECT OPERATIONS

Project Operations is land associated with the dam, spillway, levees, lake office, maintenance facilities, and other areas solely for the operation of the project. There are 131 acres of lands under this classification, all of which are managed by the USACE. The management plan for the Project Operations area is to continue providing physical security necessary to ensure sustained operations of the dam and related facilities, including restricting public access in hazardous locations near the dam and spillway. Limited and passive recreation use such as bank fishing and hiking is currently allowed within some areas classified as Project Operations, but USACE considers this use to be incidental and may prohibit such use without notice for project operational or security needs. Public vehicular traffic is currently allowed on the road traversing the crest of the earthen embankments. USACE maintains the road.

Recommended future actions for these areas include facility upgrades to meet USACE sustainability objectives as funding and personnel allow. Opportunities to incorporate environmental stewardship objectives for land management such as invasive species control and wildlife management through use of food or pollinator plots will be implemented as appropriate.

5.3 HIGH DENSITY RECREATION

Trinidad Lake has 449 acres developed for intensive recreational activities for the visiting public, including day use and campgrounds, which is all managed by CPW. National USACE policy set forth in ER 1130-2-550, Chapter 16, adopted March 30, 2009, limits new recreation development within outgranted (leased) areas on USACE lands to those activities that are dependent on a project's natural resources and typically include water-based activities, overnight use, and day use (such as campgrounds, picnic areas, and boat launching ramps). Examples of activities that are not dependent on a Lake's natural resources include stand-alone theme parks, sport or concert stadiums, restaurants, and hotels. Stand-alone golf courses are considered an example of these activities that cannot be developed following adoption of Chapter 16 of ER 1130-2-550.

Based upon outdoor recreation trends documented in the Colorado SCORP, activities such as hiking, fishing, camping, and boating remain the most favorite and common activities (see Section 2.5.4). The facilities provided at Trinidad Lake are support these recreational trends. USACE intends to continue their partnership with CPW to operate the campground and day use areas by maintaining and improving existing facilities. Long range plans include additional campsites and integrating electricity into the campgrounds as time, resources, and budget permits.

5.3.1 Leased Parks and Areas

All seven of Trinidad Lake's recreational areas are leased areas to CPW. There are no other recreational outgrants issued in the form of permits or leases to recreational partners, referred to as grantees, at Trinidad Lake. Similar to the leases with CPW, if in the future new leases are developed, each grantee would be responsible for the operation and maintenance of their leased area. Although USACE does not provide direct maintenance within any of the leased locations, it may occasionally lend support where and when appropriate. The USACE reviews requests and ensures compliance with applicable laws and regulations for proposed activities in all leased and USACE-operated HDR areas. USACE works with partners to ensure that recreation areas are managed and operated in accordance with the objectives prescribed in Chapter 3.

CPW Managed and Operated Areas

CPW currently holds the lease for approximately 2,700 acres of land, 152 acres of which is developed for recreation. The following describes each of the recreational areas.

Carprios Ridge Recreation Area: Located on the left bank of the reservoir, Carpiros Ridge Recreation Area is 1/2 mile west past the project office. This 143-acre recreation site consists of two waterborne toilet facilities, one with showers and laundry. Both camping and day use recreation allowed. The campground has 63 sites, 63 with electrical hookups. Water hydrants are centrally located throughout the campground, and five sites are specifically designed for use by persons with disabilities. There are two group picnic sites and 11 individual picnic sites. An amphitheater, overlook, and interpretive site lie between the day use picnic area and campground.

Longs Canyon: Located approximately seven miles west of Trinidad, Colorado, off of State Highway 12, the 100 acres Longs Canyon consists of a 10-acre, low-density recreation area developed for wildlife observation. Improvements include a parking area, a 3/4 mile interpretive trail, three goose nesting structures, and 2 wildlife observation blinds. This trail connects with the South Shore Trail and features one of the best observation points of the K-T Boundary in the world.

Overlook Day Use Area: The 10 acre Overlook Area is on the south shore of the reservoir, immediately adjacent to the dam. Located on the south-side of Trinidad Lake/Dam; it is approximately one mile off Interstate 25, along county road 18.3, located

on south side of Trinidad Lake. The area has a vault restroom, two park benches, five picnic sites, and parking for fifteen vehicles. The area offers views of dam, lake, and the Purgatoire River Valley to the Sangre de Cristo Mountains. This area was updated in 2009 and includes a one-mile loop concrete trail that is ADA accessible. Future management and development plans for the area include maintaining the current facilities.

Piedmont Group Recreation Area: The Piedmont Group Recreation Area, consisting of 30 acres, is available to the public on a reservation basis through Trinidad Lake State Park. Day use and group camping is available. The site has a large, covered pavilion with eight tables, three camping sites with electric, five camping sites with no electric, one horseshoe pitching pit, one vault toilet, and drinking water. Parking for 20 vehicles is available. A dump station, flush toilets, laundry facilities, and showers are accessible in the main campground. Located approximately one mile from State Highway 12 off County Road 18.3 on the outlet side of Trinidad Lake, the area is open to the public from May through October. Future management includes maintaining existing facilities. As resources permit, pavilion updates could include a waist high wall around the pavilion and roll-up manual "garage" style doors to mitigate exposure to weather. This will help to enclose the pavilion during bad weather.

Reilly Canyon: Reilly Canyon is a 400 acre area of which 10 acres are developed for recreation. It is accessible as a low-density recreation area containing a trailhead for the four-mile Reilly Canyon Trail that ties in to the Carpios Ridge Trail. This area also has one portable toilet and several natural water access points. It is located approximately seven miles west of Trinidad and approximately .5 miles south of the Highway 12. Future management plans include maintaining existing facilities. Future management includes mitigating social roads and developing parking areas.

Southside Recreation Area: The Southside Recreation Area consists of 318 acres of the most heavily used primitive camping area on the lake. The Carpios Ridge campground with 63 sites sits on a ridge above the lake within this area, and other facilities consist of ten camping sites, one vault toilet, a state-of-the-art playground, and parking for twenty vehicles. There is also a dump station just outside Carpios Ridge campground next to the Visitor Center. A 3.5-mile section of the South Shore Trail ties in with the Longs Canyon trail. The trailhead is located near the entrance to the camping area. This trail is the only one open to equestrian use at Trinidad Lake State Park. This area is located approximately 1 mile off Interstate 25, Exit 11 in Trinidad, Colorado. Future management plans include maintaining existing facilities.

Trinidad Recreation Area: The Trinidad Recreation Area is located on the north side of the reservoir, immediately adjacent to the dam. This 102-acre recreation site consists of a boat ramp (see Section 5.3.2), parking area, overlook, two-day use picnic sites, and two vault toilets. This area is located approximately 3 miles west of Trinidad, Colorado off Highway 12. Future management plans include maintaining existing facilities.

Archery Range: The Trinidad Lake archery range has six shooting lanes from 10-50 yards and one open lane to 100 yards. No crossbows or firearms are allowed, and the range is open from sunrise to sunset. The range is located Carpios Cove at Trinidad Lake State Park. Future management plans include maintaining existing facilities.



Photo 5.1 Archery Range (Courtesy of CPW)

5.3.2 Boat Ramps

There is one boat ramp at Trinidad Lake, which is operated by CPW in the Trinidad Recreation Area. The ramp consists of two launch lanes and provides recreational access to the lake and is closed seasonally and occasionally due to water level or other damage. The maps in Appendix A of this Plan indicate the location of this ramp. Currently, there are no plans to expand or add additional boat ramps or launch lanes at Trinidad Lake. Future management plans include maintaining existing facilities.

5.3.3 Trails

Trinidad Lake features seven established trails managed by CPW for hiking, cycling, and horseback riding, four of which can be accessed from the Carpios Ridge Area. The half-mile Carpios Cove Trail leads to the west side of Carpios Cove. The 0.6-mile Park View Trail is ADA-accessible and circles the overlook through pinion and juniper trees with view of the lake and native artifacts. The one-mile Levisa Canyon Trail loops back to the campground. The four-mile Reilly Canyon Trail offers a more challenging hike to the Reilly Canyon and the historic town of Cokedale.

Trails featured on the south side of the lake include the one mile, handicapped-accessible Sunset Point trail with an easy walk to a picnic area and scenic overlook.

The 2.5-mile South Shore Trail leads to Long's Canyon and less explored park area. The .75 Long's Canyon nature trail leads to two observation blinds overlooking a wetland. Future management plans include maintaining existing facilities.

Trinidad Lake State Park

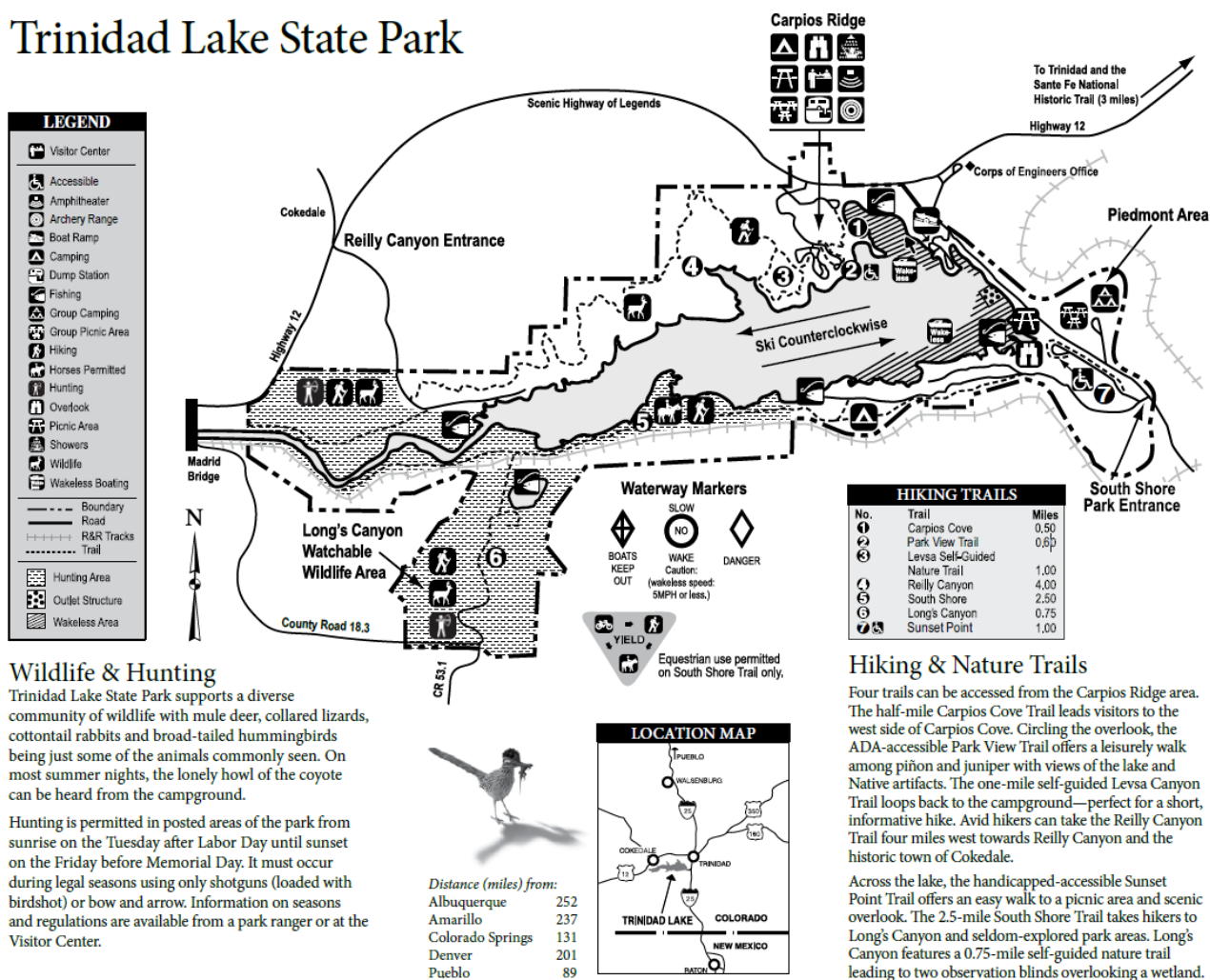


Figure 5.1 Trinidad Lake Recreation Areas (Source: CPW)

5.4 MITIGATION

This classification is used for lands that were acquired specifically for the purpose of offsetting losses associated with development of the project. There are no acres at Trinidad Lake under this classification.

5.5 ENVIRONMENTALLY SENSITIVE AREAS

There are three Environmentally Sensitive Areas (ESA) totaling 14 acres designated at Trinidad Lake in which scientific, ecological, cultural, or aesthetic features have been identified. Designation of these lands is not limited to just lands that are otherwise protected by laws such as the Endangered Species Act, the National Historic Preservation Act (NHPA) or applicable state statutes. These areas must be managed to

ensure they are not adversely impacted. Typically, limited or no development of public use is allowed on these lands. No agricultural or grazing uses are permitted on these lands unless necessary for a specific resource management benefit, such as habitat restoration and management. These areas are typically distinct parcels located within another, and perhaps larger, land classification area.

The ESAs listed and described in Table 5.1 provide the map reference found in Appendix A, number of acres for each ESA, and a brief location description of the ESA. Since ESAs can be designated to protect culturally and/or historically significant sites or sites that are otherwise in need of special protections the ESAs have been expanded well beyond the known cultural site to avoid identifying the exact location of the site and to protect potential additional unidentified sites adjacent to those which are being protected.

Table 5.1 ESA Listing

ESA#	Acres	Location and Description
ESA 1	10	ESA 1 is located south of the conservation pool and north of the Longs Canyon Trail.
ESA 2	2	ESA 2 is located southeast of the Southside Recreation Area.
ESA 3	2	ESA 3 is located on the north side of the lake just south of the USACE project office.

Future management of ESA areas at Trinidad Lake will be designed to protect and improve the resources that qualify these areas for ESA classification. All of these areas are suitable for development of natural surface pedestrian trails unless the areas are critically important as habitat for sensitive species. Specific management measures may include, but are not limited to, the following:

- Cultural Resource Sites: Known sites will be protected from vandalism and/or erosion. Additional reconnaissance surveys will be conducted as needed to determine the extent of cultural resource sites. Tribal coordination will continue to insure proper management and/or protection of known sites.
- Sites supporting Species of Conservation Concern: The site characteristics that cause these areas to be favored by individual species will be protected and improved. Perch and/or nesting sites for the southern bald eagle are examples of site characteristics that need protection.
- Steep Slope Sites: These areas will be monitored to protect their scenic value, wildlife habitat value, and to reduce shoreline erosion.

5.6 MULTIPLE RESOURCE MANAGEMENT LANDS

The 1,078 acres of Multiple Resource Management Lands are organized into four sub-classifications. These sub-classifications are Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. The

following is a description of each sub-classification's resource objectives, acreages, and description of use.

5.6.1 Low Density Recreation

These lands are generally narrow parcels of land that are adjacent to private residential developments. Future management of these lands calls for maintaining a healthy, ecologically adapted vegetative cover to reduce erosion and improve aesthetics. Prevention of unauthorized use such as trespass or encroachments is an important management objective for all USACE lands but is especially important for those lands near private development. The general public may use these lands for bank fishing, hiking, and for access to the shoreline. Future uses may include additional designated natural surface hike/bike/equestrian trails. There are 537 acres classified as Low Density Recreation.

5.6.2 Wildlife Management

These are lands designated for the stewardship of fish and wildlife resources and are managed by CPW, in coordination with USACE. There are currently 1,601 acres of land under this classification at Trinidad Lake; however, areas of Low Density Recreation, ESAs, and vegetative management all support wildlife. Management efforts focus on producing native wildlife food and habitat.

The broad objective of fish and wildlife management is to conserve, maintain and improve the fish and wildlife habitat to produce the greatest dividend for the benefit of the general public. Implementation of a fish and wildlife management plan is the first step toward achieving the goals of the Fish and Wildlife Coordination Act (Public Law 85-624). CPW has the responsibility for managing fish and wildlife, primarily through enforcement of laws and regulations and establishing seasons and bag limits for game species. Future management plans for wildlife areas include continued cooperation with partners and managing and improving wildlife management areas under this land classification.

There are four known federally listed species and four known state-listed species that could utilize habitat within the Trinidad Lake area. Therefore, any work conducted on this project will be in accordance with the Endangered Species Act and will be appropriately coordinated with the USFWS. These species (Table 26) will continue to receive attention to ensure they are managed in accordance with their habitat needs.

Non-game wildlife is also managed by CPW. The following list of non-game programs is being or will be pursued as funds become available.

- Early detection and prevention of introduction and spread of aquatic invasive species such as Quagga and Zebra mussels
- Raptor perches
- Osprey nesting platforms
- Invasive plant species management: Eradicate/control salt cedar and replace with native willows or other native vegetation

- Native vegetation restoration where needed using native species
- Fish spawning and habitat structures
- Food/habitat plots for various native wildlife
- Pollinator garden
- Wildlife friendly fencing
- Baseline inventory of wildlife species and associated habitat

5.6.3 Vegetative Management.

These are lands that have vegetative types considered to be sensitive and needing special classification to ensure success. A good example of these types of vegetation would be forested wetlands unique to the Southern High Plains Ecoregion. There are no acres currently identified at Trinidad Lake for vegetative management purposes.

5.6.4 Future/Inactive Recreation Areas.

These are areas with site characteristics compatible with potential future recreational development or recreation that are closed. Until there is an opportunity to develop or reopen these areas, they will be managed for multiple resources. There are no acres classified under this sub-classification at Trinidad Lake.

5.7 WATER SURFACE

At the permanent pool (sometimes referred to as the conservation, or normal pool elevation) there are 633 acres of surface water within USACE fee boundary. Buoys are managed by USACE and CPW (or the recreational lessee) and help mark hazards, swim beaches (should one be established), boats keep-out and no-wake areas.

5.7.1 Restricted

Restricted areas are around the dam where boats are prohibited for project operations, safety, and security purposes. Water surface zoned as restricted totals approximately 3 acres.

5.7.2 Designated No-Wake

No-wake areas are located near boat launch areas for the safety of launching and loading boat or personal watercraft. Currently, approximately 3 total acres at Trinidad Lake are designated for no-wake.

5.7.3 Fish and Wildlife Sanctuary

These areas are managed with annual or seasonal restrictions to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning. There are no water surface acres under this classification at Trinidad Lake.

5.7.4 Open Recreation

The remaining lake area not in the above classifications is open to recreational use. No specific zoning exists for these areas, but there is a buoy system in place to help aid in public safety. Future management of the water surface includes the

maintenance of warning, information, and regulatory buoys as well as routine water safety patrols during peak use periods. As explained in Section 4.2.7 of this Master Plan, the entire water surface of Trinidad Lake, minus Restricted and Designated No-Wake areas is classified as Open Recreation. Available water surface varies significantly with the fluctuating elevation of the lake, but it is reasonable to assume an average water surface of approximately 627 acres during the peak recreational boating season.

5.8 SUSTAINABILITY

Sustainability is a multi-pronged aspect of responsible stewardship of USACE lands. The outcome of sustainability initiatives is to have a program that is able to adapt to fiscal challenges, safeguards the environment, and continues to provide high quality recreational opportunities for the public. As the nation's largest provider of outdoor recreation, managing 12 million acres of lands and waters across the county, USACE is committed to implementing initiatives that link people to water.

The recreational mission of USACE is to manage and conserve natural resources, while providing quality public outdoor recreation opportunities to serve the needs of the present and future generations. This is in line, and indeed the underpinning, of all the goals and objectives for Trinidad Lake resources and management. The national USACE 2021 Natural Resources Management Strategic Plan identifies several goals and related objectives designed to build a more robust environmental and recreational program on USACE managed lands. The four primary goals are Workforce Development; Improved Communication; Resourcing; and Program Delivery. Under the umbrella goal of Program Delivery, several objectives center specifically on promoting environmental sustainability in all aspects of natural resources management. This includes integrating environmental operating principles and other environmental regulations and initiatives into day-to-day decision making and long-range planning. Other objectives include using Leadership in Energy and Environmental Design (LEED) certified personnel and projects in facility design and maintenance, adopting Sustainable Sites Initiative criteria where applicable on land-based recreation areas, and updating project Master Plans to include environmental sustainability elements.

Meeting the public's needs and continuing to provide a full range of outdoor recreation opportunities will require collaboration. In support of that, USACE will maintain and enhance existing reports while seeking new and innovative types of relationships with federal, state, and local agencies, volunteers, non-government organizations, cooperators, and others to provide certain recreation services and opportunities to the public. Besides pursuing and maintaining partnerships, it is important to continue to identify, analyze, and evaluate authorities and policies such as fee collection and retention, and increased partnership capabilities. Areas identified for changes to meet the goals and objectives of this strategy include authorities for fee collection and retention without budgetary offset, and policies that pertain to funding schedules for partnership projects.

Through creativity, innovation, strong partnerships, and environmentally sustainable stewardship, quality recreational opportunities will continue to be available to the public. This will be done while simultaneously protecting the water, environment, and cultural resources for current and future generations.

CHAPTER 6: SPECIAL TOPICS/ISSUES/CONSIDERATIONS

6.1 CULTURAL RESOURCES AND CONSULTATION WITH TRIBAL NATIONS

It is required for federal agencies to consult with affiliated Native American Tribes or Native Hawaiian organizations on activities that take place on federal land under federal guidance including but not limited to Sections 106 and 110 of the National Historic Preservation Act (NHPA) of 1966 (as amended); Archaeological Resources Protection Act (ARPA) of 1979; Native American Graves Protection and Repatriation Act (NAGPRA); and 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections. Implementing regulations for Section 106 of the NHPA and NAGPRA are 36 CFR Part 800 and 43 CFR Part 10, respectively. All cultural resources laws and regulations should be addressed under the requirements of the 1969 NEPA as amended. USACE summarizes the guidance provided in these laws in ER 1130-2-540 and EP 1130-2-540. Additionally, Executive Order 13007 states that each federal agency with responsibility for the management of Federal lands shall accommodate access to and ceremonial use of Native American sacred sites by religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

The Albuquerque District takes its responsibilities for consultation on a government-to-government basis very seriously and consulted extensively with Native American Tribes on the Trinidad Lake Master Plan. The Albuquerque District consulted with Tribes primarily on developing ESA's and ensuring areas of Tribal concern were addressed. This process has allowed Tribes to become more familiar with USACE property at Trinidad Lake, and has increased USACE staff awareness of Tribal histories, sites, and concerns in the area. This exchange of knowledge from developing the master plan will allow USACE staff to better engage with Tribes on future projects at Trinidad Lake and will likely lead to more efficient reviews and better outcomes meeting objectives for both parties.

6.2 RAILROAD RIGHT OF WAY

Approximately 5 miles of inactive railroad tracks are located on USACE fee property at Trinidad Lake. Although this is currently not an active railway, it is possible that the system could be re-activated in the future.

6.3 REGIONAL TRAIL NETWORK

USACE recognizes the public demand for increased multi-use trails throughout the region and the potential to have a regional trail network that connects the various city, state, and federal public lands around Trinidad and Las Animas County. USACE supports these expanded opportunities and will continue to work in partnership with CPW to identify potential trails and corridors on fee-owned property.

6.3 TRINIDAD K-T BOUNDARY

Within the Trinidad Lake State Park lies the Trinidad K-T Boundary Natural Area. The site contains evidence of an asteroid impact that scientist believe led the mass extinction of

non-avian dinosaurs and other lifeforms at the end of the Cretaceous period. It includes a scientifically important exposure of the Cretaceous-Paleogene (formerly known as the Cretaceous-Tertiary, K-T). By analyzing the layers of rocks, scientists have learned much about prehistoric life before, during, and after the asteroid impact. As indicated by the map found in Appendix A, the viewing site is located on the southeast side of the USACE fee lands along the Longs Canyon Trail.

6.4 PUBLIC HUNTING ACCESS

Colorado has many acres of public land available for hunting including public access on USACE lands so that both Colorado residents and non-residents have ample opportunity to hunt. Hunting is in accordance with applicable Federal and State regulations, and managed by CPW. Trinidad Lake hunting areas are open for public hunting of all legal species with the use of any legal weapon for that open season except in areas designated for restricted hunting. Hunting is prohibited in developed recreational areas, lands around dams, and around other structures. Vehicles must remain on established roads, and camping is allowed in designated areas only. Individuals interested in hunting on USACE lands should visit the CPW website and visit the lake office for Trinidad Lake for more information.

6.5 COMPETING INTERESTS ON THE NATURAL RESOURCES

Trinidad Lake is a multi-purpose project with numerous authorized purposes. The authorized purposes accommodate the needs of federal, state, and municipal users which have developed over time and have contractual rights that must be honored. The benefits provided by virtue of authorized purposes are critical to the local and regional economies and are of great interest to the public. Aside from operating the reservoir to meet the needs of those entities with contractual rights, there are many competing interests for the utilization of federal lands including recreational users, adjacent landowners, those who own mineral rights, utility providers, and all entities that provide and maintain public roads. A growing population and increasing urbanization places additional stress on these competing interests through increased demand for water resources and recreation spaces as well as diminishing quality and space for natural habitat and open spaces. Balancing the interests of each of these groups to ensure that valid needs are met while at the same time protecting natural and cultural resources is a challenge. The purpose of this Plan is to guide management into the foreseeable future to ensure responsible stewardship and sustainability of the project's resources for the benefit of present and future generations.

CHAPTER 7: PUBLIC AND AGENCY COORDINATION

7.1 PUBLIC AND AGENCY COORDINATION OVERVIEW

The USACE is dedicated to serving the public interests in support of the overall development of land uses related to land management for cultural, natural, and recreational resources of Trinidad Lake. An integral part of this effort is gathering public comment and engaging stakeholders in the process of planning. USACE policy guidance in ER 1130-2-550 and EP 1130-2-550 requires thorough public involvement and agency coordination throughout the Master Plan revision process, including any associated NEPA process. Public involvement is especially important at Trinidad Lake to ensure that future management actions are both environmentally sustainable and responsive to public outdoor recreation needs in a region which is experiencing rapid population growth. The following milestones provide a brief look at the overall process of revising the Trinidad Lake Master Plan.

The USACE began planning to revise the Trinidad Lake Master Plan in late 2022. The objectives for the Master Plan revision were to (1) update land classifications to reflect changes in USACE land management policies since 1975 and (2) update the Master Plan to reflect new agency requirements for Master Plan documents in accordance with ER 1130-2-550, Change 7, January 30, 2013, and EP 1130-2-550, Change 5, January 30, 2013.

7.2 INITIAL STAKEHOLDER AND PUBLIC SCOPING

A face-to-face public meeting was held for Trinidad Lake on August 18th, 2022. After this meeting a 30-day comment period opened until September 17th, 2022. The presentation included a description and definition of a master plan, descriptions of the new land use classification options, and instructions for commenting on the Master Plan revision. USACE received 13 comments from ten (10) individuals for Trinidad Lake. While issues raised are important, most of the comments received do not pertain to land use. Public comments included hike and bike trails, improved facilities, roads, other recreation opportunities, and water quality and supply.

Trinidad Lake is a federally owned and managed public property, and it is USACE's goal to be a good neighbor, as well as steward for public interest as it concerns Trinidad Lake. As such, USACE is bound to the equal enforcement of policies and fees for this publicly held national asset. Table 7.1 provides a summary list of the comments received during the initial scoping comment period for the Master Plan, followed by the USACE response.

Table 7.1 Public Comments from September 17th, 2022 through October 18, 2022

Comment	Response
<p>I would like to see a pathway built around the lake that is designed for walking, hiking, and biking as long as possible and eventually, that circles the whole lake and crosses the dam. Possibly, a walking bridge could be built across the Purgatoire River on the west end. The idea behind this would be to develop the lake as a place for regular exercise and recreation. A swimming and/or wading area would also be fun. Perhaps TSC could have a crew team that could use the lake.</p>	<p>Non-concur. A pathway around the lake is not feasible due to soil conditions and fluctuating water levels. There are 7 existing trails at Trinidad Lake. Please reference 6.3 regarding a regional trail system. Swimming is currently allowed by CPW, but a designated area is not feasible due to fluctuating water levels and topography.</p>
<p>We would like a multi-use trail (off Road Singletrack) connecting Reilly Canyon to South Side Trail to make a loop possible. We would like a trail connecting to Fishers Peak State Park. Reilly Canyon Trail needs maintenance including mountain bike optimization. Connecting trail from the Boulevard trails along the Purgatoire River into Trinidad Lake State Park. We love kayaking, paddleboarding, and mountain biking.</p>	<p>Non-concur. Due to fluctuating water levels a connection on fee-owned land between the trails is not feasible. Please reference 6.3 regarding a regional trail system.</p>
<p>My husband and I heard there may be a possibility for a bike path or trail going around the entire lake. If so, we wanted to show our strong support of that idea. By the way it would also be awesome if there were a connection trail from Trinidad State Park to Fishers Peak State Park!</p>	<p>Noted. Please reference 6.3 regarding a regional trail system.</p>
<p>Can we create a swim beach at Trinidad Lake State Park? We could host triathlons and increase recreation opportunities with a swim area. It would be nice to expand the trail networks accessing a trail from the RV campground to the South Shore or other hike/bike and accessibility trails.</p>	<p>Non-concur. This area is within the CPW Trinidad Lake State Park lease. CPW manages the recreation in the area however, USACE works in partnership with the lessee to determine appropriate recreation determinations. A swim beach is not feasible due to the fluctuating water level and challenging maintenance which would be required.</p>
<p>I am a new resident in Trinidad, and I moved here because I see the potential for the area to become a recreational destination for all of Colorado. I hike in the state parks or local trails daily, and they are wonderful, but underdeveloped. I suggest that we build on efforts that are already happening and invest more in gravel bicycle riding routes, mountain biking parks and trails, and hiking trails. I would like to add my comments. After further exploring the existing trail system around Trinidad Lake, I have some specific</p>	<p>Non-concur. USACE recognizes the public demand for increased multi-use trails however, the soil quality and fluctuating water levels are factors which limit the connectivity of the trails at Trinidad Lake. USACE supports expanded opportunities and works in partnership with CPW to identify potential areas. USACE and CPW also offer opportunities for</p>

<p>suggestions for the master plan. Trails should be built up to be wider and longer to accommodate families, bikes and dogs. Trails should be accessible to bikes and people of various abilities. Trails should be maintained. we have miles of existing trails that are overgrown and inaccessible. Trails should be connected and bike-able from downtown main street. Trails should be interconnected to each other. Car access to the park should be carefully considered to preserve pedestrian safety and access. Trinidad Lake should have a large designated off-leash dog area that also preserves wildlife habitat.</p>	<p>volunteers to help build and maintain trails. The city of Trinidad offers a nearby dog park.</p>
<p>Operational - Work with all of the stakeholders to better serve the communicate on the release of flood water so it does no cause further damage downstream to immediate landowners. Recreational - More hiking trails strategically located throughout the park open it up for snow shoeing, cross country skiing in the winter n existing trails. Wildlife - Create more food habitat, covers in strategic areas throughout the park, allow more sites for the public to come and see the local wildlife. More restrooms not the port-a-potties. Real clean restrooms throughout the park that are handicap accessible.</p>	<p>Operational - Noted. The MP does not cover flood water release notifications; however, this information has been passed on to Operations. Recreational – Non-concur. Minimal snowfall and limited conditions for quality snowshoeing and cross-country skiing make accessing trails for these purposes less desirable. Wildlife – USACE partners with CPW in managing non-invasive vegetation to promote healthy environments for wildlife to thrive. Food plots are already in existence, and more approved, on fee-owned land. Water-borne restrooms are appropriately placed based on ground conditions and water levels. Water fluctuation restricts areas where these facilities can be constructed.</p>
<p>The TOOR would like to offer the ACE some suggestions as it revises its master plan for Trinidad Lake. We would like the Corps to consider developing access to the lake from Carpios Cove. Because of the protected nature of the cove, it would be a great location for perhaps a beach front where visitors could swim, kayak, paddle board, perhaps have a wibit https://www.wibitsports.com/our-inflatable-products-for-open-water/ and otherwise recreate in, on and around the cove. Perhaps the corps would consider picnic areas and/or tent sites in the vicinity of the cove as well. A map of the proposed location is attached for your reference.</p>	<p>Non-concur. Development of a swim beach and permanent recreational facilities in Carpios Cove is not feasible due to fluctuating water levels and future maintenance which would be required to maintain USACE standards. Additionally, soil conditions in this area are not conducive to vehicular access.</p>

I am interested in making a comment regarding Mobile RV's which will be too long/big to accommodate at Fisher's Peak State Park Mobile R.V. Parking area. I believe Exit 11 to Trinidad Lake State Park on the south side has plenty of land in order to accommodate the larger mobile RV's. The RV's have their own propane, electricity and restroom facilities. They usually pull a car allowing to travel to downtown Trinidad and Fisher's Park.	Non-concur. USACE is interested in developing recreational facilities to support a variety of user. However, at this time no further campground areas are being proposed by CPW due to fluctuating water levels, which make any investment in permanent infrastructure not logistically possible.
The U.S. Environmental Protection Agency Region 8 has received the U.S. Army Corps of Engineers July 26, 2022, Public Notice (PN) regarding the Trinidad Lake Master Plan (MP) Revision. The Corps is currently seeking input related to environmental concerns under the National Environmental Policy Act (NEPA) to develop a successful MP. We offer the enclosed comments consistent with our responsibilities under Section 102(2)(C) of NEPA. Full comment is included in Appendix G.	USACE welcomes any information the EPA provides as part of the MP decision-making process. A thorough review of the full comment (Appendix G) providing detailed considerations on the following topics, was considered in the draft EA (Appendix A). Existing Environmental Conditions for Water Resources, Water Quality, Wetlands and Riparian Areas, Compliance with Executive Order 11990 Protection of Wetlands, Cumulative and Indirect Impacts, Environmental Justice, National Historic Preservation Act, Special-Status and Threatened and Endangered Species, Invasive Species, Climate Change, and Mitigation, Monitoring, and Adaptive Management.
Consider adding parking and camping sites to take overflow when Fishers Peak opens up completely. Work with city of Trinidad to connect trails to Trinidad Lake Park.	Non-concur. There are currently no plans to expand parking or campsites at Trinidad Lake. Please reference 6.3 regarding a regional trail system.

7.3 PUBLIC AND AGENCY REVIEW OF DRAFT MASTER PLAN, EA, AND FONSI

This section will be completed after the draft report release and collection of comments through a 30-day comment period.

CHAPTER 8: SUMMARY OF RECOMMENDATIONS

8.1 SUMMARY OVERVIEW

The preparation of the Trinidad Lake Master Plan followed the USACE Master Planning guidance in ER 1130-2-550 and EP 1130-2-550, both dated 30 January 2013. Three major requirements set forth in the new guidance include (1) preparation of contemporary Resource Objectives, (2) Classification of project lands using the newly approved classification standards, and (3) preparation of a Resource Plan describing in broad terms how the land in each of the land classifications will be managed into the foreseeable future. Additional important requirements include rigorous public involvement throughout the process, and consideration of regional recreation and natural resource management priorities identified by other federal, state, and municipal authorities. The study team endeavored to follow this guidance to prepare a Master Plan that will provide for enhanced recreational opportunities for the public, improve environmental quality, and foster a management philosophy conducive to existing and projected USACE staff levels at Trinidad Lake. Factors considered in the Plan were identified through public involvement and review of statewide planning documents. This Master Plan will ensure the long-term sustainability of the USACE managed recreation program and natural resources associated with Trinidad Lake.

8.2 LAND CLASSIFICATION PROPOSALS

A key component in preparing this Master Plan was examining prior land classifications and addressing the needed transition to the new land classification standards. During the public involvement process, USACE sought public input into whether, besides the simple change in nomenclature, a shift in land classification was desired (for example, should lands with a recreation classification be reclassified to a wildlife classification or vice versa.). Chapter 7 of the Plan describes the public input process.

Of the 13 public comments received following the initial public scoping meeting, most concerned an interest in hike and bike trails, improved facilities and roads, and more recreational opportunities. The land classifications presented in the MP were formulated based on these comments, first-hand experience, and professional training of USACE Trinidad Lake Project staff, Operations Division Staff and Regional Planning and Environmental Center (RPEC) staff assigned to the Master Plan PDT, as well as proven best management practices. All land and water classification changes reflect historic and projected public use and new USACE guidance from ER 1130-2-550 and EP 1130-2-550. A summary of acreage changes from prior land classifications to the current classifications is provided in Table 8.1, and key decision points in the reclassification of project lands are presented in Table 8.2.

Table 8.1 Change from Prior Land Classification to Proposed Land Classification

1975 Land Class	1975 Acres¹	2023 Land Class	2023 Acres
Project Operation	422	Project Operations	131
Operations: Recreation - Intensive Use	561	High Density Recreation	449
-	-	Environmentally Sensitive Areas	14
Not Classified	984	Multiple-Resource Management Lands	1,078
Operations: Recreation - Low Density Use	516	Low Density Recreation	537
Operations: Wildlife Management	952	Wildlife Management	1,601
Total Land Acres	2,732	Total Land Acres	2,732
<i>Water Surface</i>	213	<i>Water Surface²</i>	
-	-	Open Recreation	627
-	-	Restricted	3
-	-	No Wake	3
Total Water Surface Acres²	633	Total Water Surface Acres²	633
Total Fee	3,365	Total Fee	3,365
Flowage Easement	302	Flowage Easement	302

1. Acreage of land areas is based on measurements using GIS technology and may vary slightly from official real estate records. Original acres as recorded in the 1975 Master Plan are 422 Project Operations, 539 Operations: Recreation – Intensive Use, 918 Operations: Wildlife Management, and 213 Water Surface, for a total of 2,608 land acres and 213 water acres.

2. Water surface based on 6,177 pool shoreline and is an estimate. Water Surface was not included in the 1975 Master Plan.

Table 8.2 Reclassification Proposals

Proposed Land Classification	Description of Changes ⁽²⁾	Justification
Project Operations (PO)	<p>The net decrease in Project Operations lands from 422 to 131 acres is due to the following:</p> <ul style="list-style-type: none"> • 4 acres REC-IU reclassified to PO. • 9 acres LDR to PO. • 2 acres PO reclassified to ESA. • 2 acres PO reclassified to HDR. • 25 acres PO reclassified to LDR. • 274 acres PO reclassified to WM. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary missions of flood risk management and water conservation. The largest factor in the reduction of PO acres was due to the reclassification of 274 acres to WM. These acres, largely behind the dam, are currently managed under WM therefore the study team determined it necessary to reclassify them as such. 118 acres originally classified as PO remained in the same land classification.</p>
High Density Recreation (HDR)	<p>The net decrease in High Density Recreation lands from 561 to 449 is due to the following:</p> <ul style="list-style-type: none"> • 103 acres REC-IU reclassified to LDR. • 4 acres REC-IU reclassified to PO. • 302 acres REC-IU reclassified to WM. • 266 acres LDR reclassified to HDR. • 3 acres previously not classified were classified as HDR. • 2 acres PO reclassified to HDR. • 25 acres WM reclassified to HDR. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>The net decrease in HDR was in part due to the reclassification of acres to WM on the north shore of the lake which were originally classified as HDR with the intent to develop recreation facilities which were never developed or minimally developed. The reclassification of these acres reflects the current and future use. Areas of LDR were also carved out of original HDR lands to capture the trail system around the lake. A large portion of the acres reclassified to HDR is in the South Shore Campground. The new designation of HDR in this area also aligns with the current management of the campground area. 152 acres originally classified as REC-IU remained in the same land classification but have been updated by name only as HDR.</p>

Environmentally Sensitive Areas (ESA)	<p>The classification of 14 acres as Environmentally Sensitive Areas resulted from the following:</p> <ul style="list-style-type: none"> • 2 acres LDR were reclassified as ESA. • 2 acres PO were reclassified as ESA. • 10 acres WM were reclassified as ESA. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>Reclassification of 14 acres was determined by the study team to be necessary to provide a high level of protection for those areas supporting significant habitat, views, or cultural sites. Classifying these areas as ESA will afford these areas with the highest level of protection from disturbance. The reclassification of these acres will have no effect on current or projected public use.</p>
MRML – Low Density Recreation (LDR)	<p>The net increase in Low Density Recreation acres from 516 acres to 537 acres resulted from the following:</p> <ul style="list-style-type: none"> • 103 acres REC-IU reclassified to LDR. • 2 acres LDR reclassified to ESA • 266 acres LDR reclassified to HDR. • 9 acres LDR reclassified to PO. • 199 acres LDR reclassified to WM. • 88 acres not previously classified were classified as LDR. • 25 acres PO to reclassified as LDR. • 281 acres WM reclassified to LDR. 	<p>LDR acres, previously captured in the 1975 MP on the southeast portion of the shoreline, were a large factor in proposed acre changes. This area currently hosts HDR features such as the Scenic Overlook and the South Shore Campground therefore changing the classification from LDR to HDR aligns with current use. Additionally, the trail on both the north and south sides of the lake was carved out of multiple land classifications and is now proposed as LDR. 38 acres originally classified as LDR remained in the same land classification.</p>

MRML – Wildlife Management (WM)	<p>The net increase in Wildlife Management lands from 952 acres to 1,601 acres is due to the following:</p> <ul style="list-style-type: none"> • 302 acres REC-IU reclassified to WM. • 199 acres from LDR reclassified to WM. • 189 acres previously not classified were classified as WM. • 275 acres PO reclassified to WM. • 10 acres WM reclassified to ESA. • 25 acres WM reclassified to HDR. • 281 acres WM reclassified to LDR. 	<p>The 302 acres reclassified from REC-IU to WM were a large contributing factor in the new increase. Areas originally classified as REC-IU to accommodate campground growth were never fully developed. The current management of these lands on the north shoreline between Carpios Ridge Campground and Reilly Canyon Fee Station are currently managed as WM. The same is true for the area between the Scenic Overlook and the USACE Project Office. Acres which were originally identified as PO behind the dam are also managed as WM, therefore the study team determined the PO acre should be reclassified to WM. 636 acres originally classified as WM remained in the same land classification.</p>
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Note: The land classification changes described in this table are the result of changes to parcels of land ranging from a few acres to over 100 acres. Acreages were measured using GIS technology. The acreage numbers provided are approximate and may differ from the official real estate acres.

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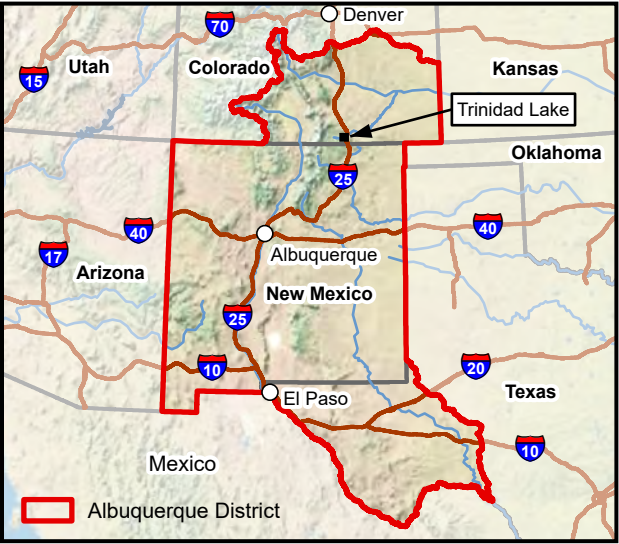
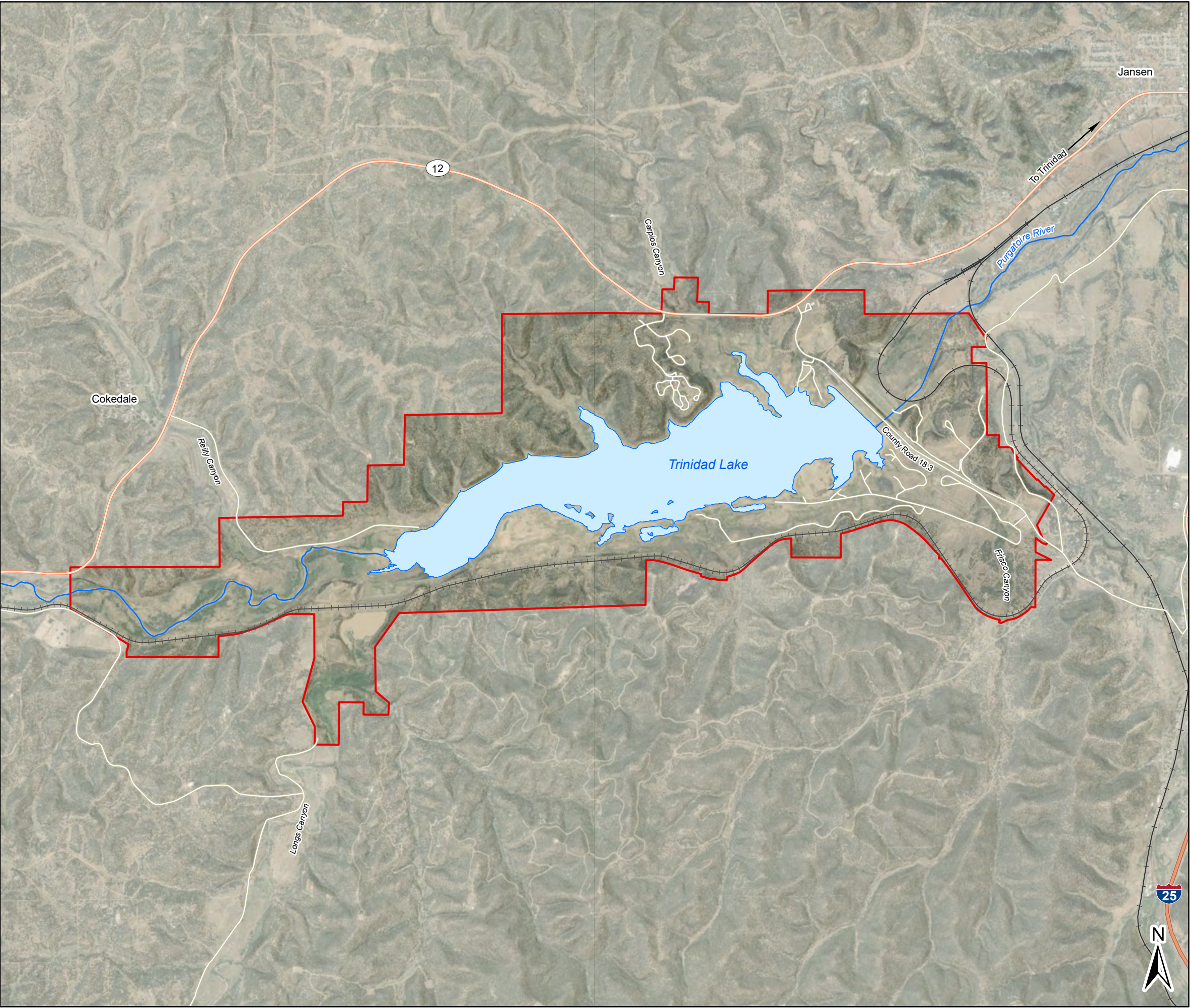
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APPENDIX A - LAND CLASSIFICATION, MANAGING AGENCIES, AND RECREATION MAPS



- Interstate
- Main Road
- Local Road
- Railroad, Active
- Railroad, Inactive
- Purgatoire River
- USACE Fee Boundary
- Permanent Pool

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GENERAL

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TN23MP-OR-01	RECREATION TRAILS
TN23MP-OM-01	LAND MANAGING ENTITIES

LAND AND WATER CLASSIFICATION

MAP NO.	TITLE
TN23MP-LC-01	LAND CLASSIFICATION CHANGES 1975 to 2023
TN23MP-OC-00	LAND AND WATER CLASSIFICATION INDEX
TN23MP-OC-01	LAND AND WATER CLASSIFICATION PLATE 1
TN23MP-OC-02	LAND AND WATER CLASSIFICATION PLATE 2

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**U.S. ARMY CORPS
OF ENGINEERS**
ALBUQUERQUE DISTRICT

TRINIDAD LAKE

COLORADO

TRINIDAD LAKE MASTER PLAN

PROJECT LOCATION AND INDEX

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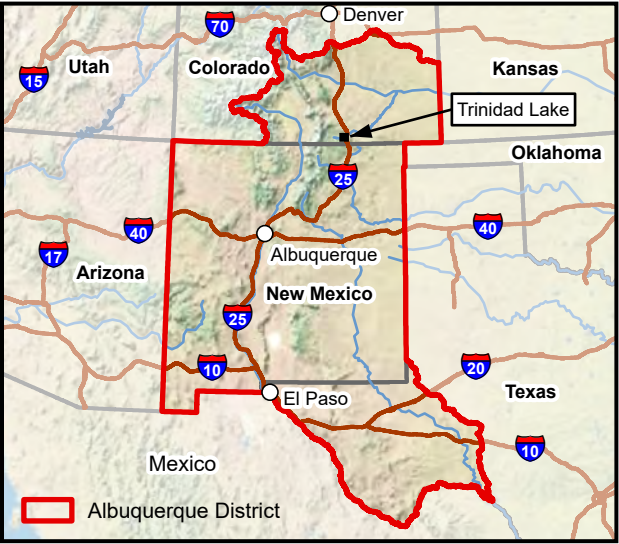
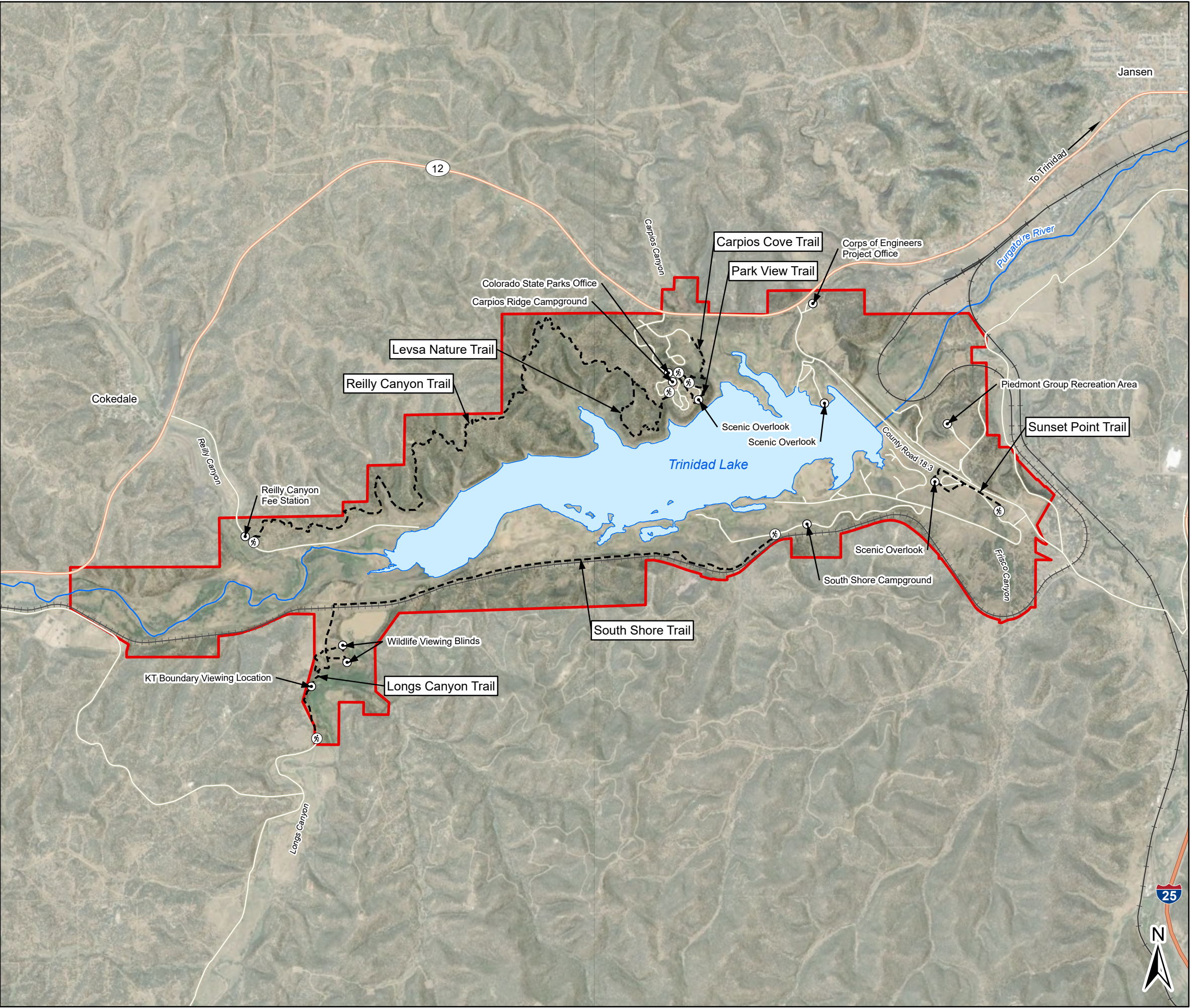
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- Trailhead
- Trail
- Interstate
- Main Road
- Local Road
- Railroad, Active
- Railroad, Inactive
- Purgatoire River
- USACE Fee Boundary
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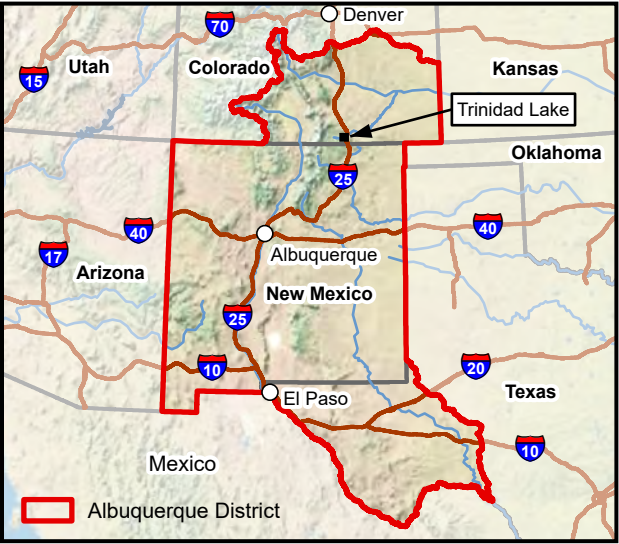
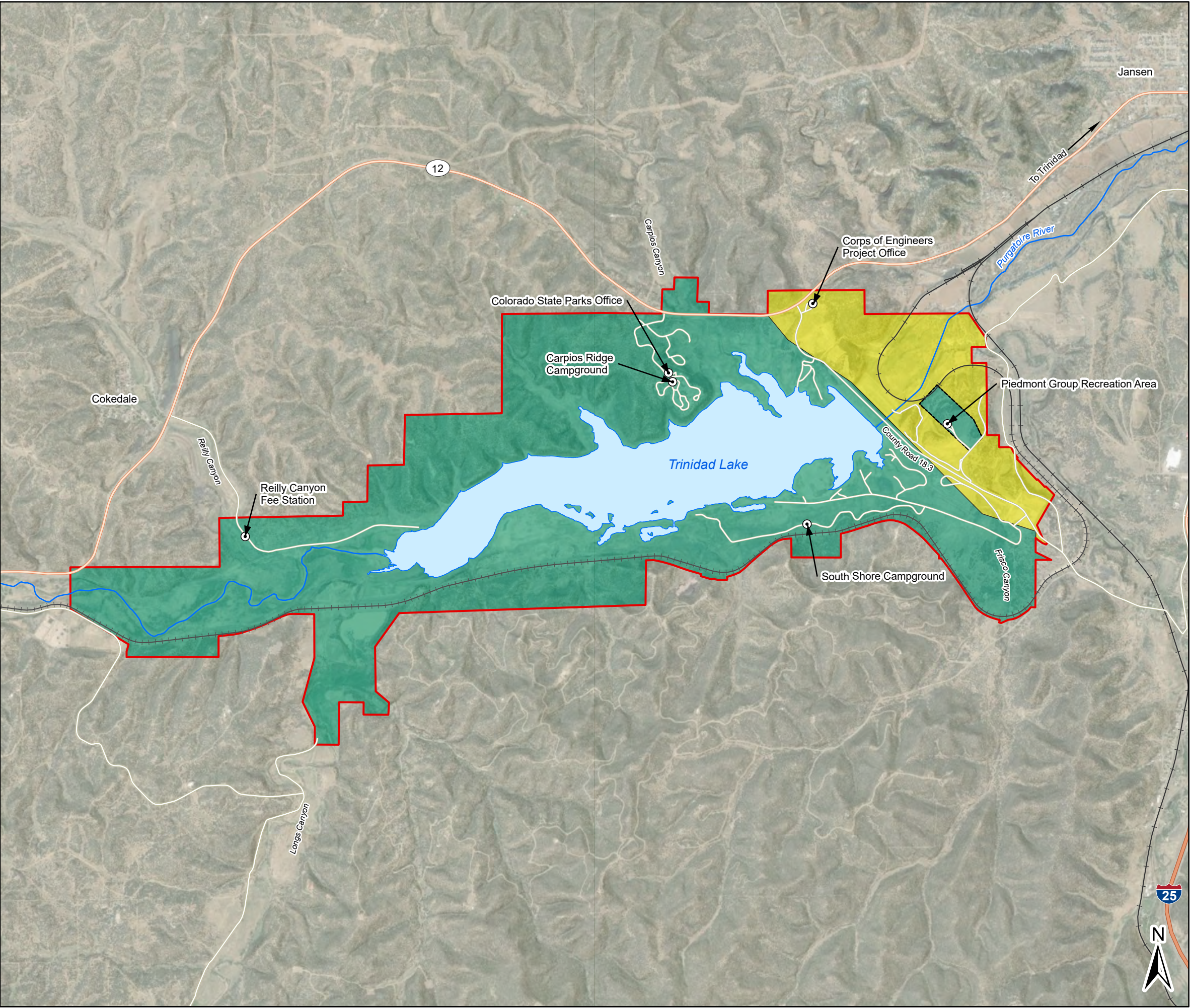
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RECREATION TRAILS**

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MAP NO.
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- Interstate
- Main Road
- Local Road
- Railroad, Active
- Railroad, Inactive
- Purgatoire River
- Piedmont Group Parcel
- USACE Fee Boundary
- Permanent Pool
- Colorado Parks and Wildlife
- U.S. Army Corps of Engineers

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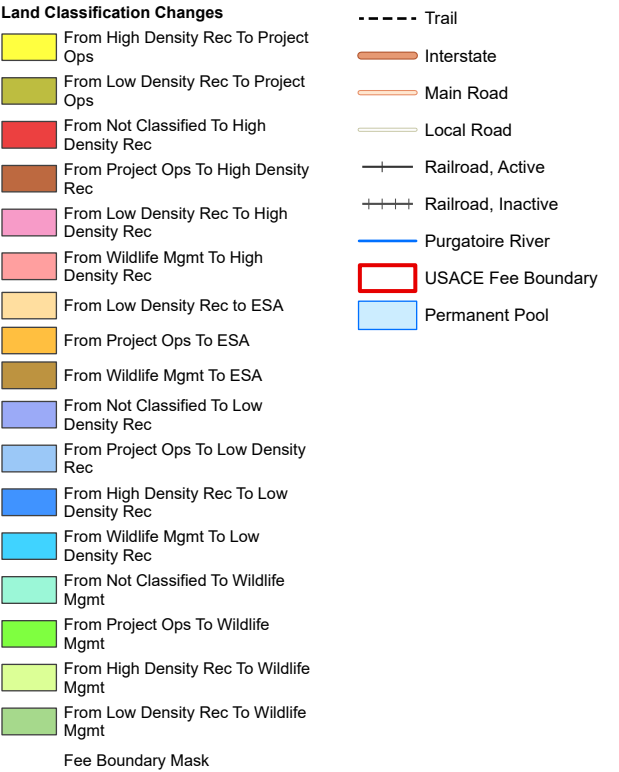
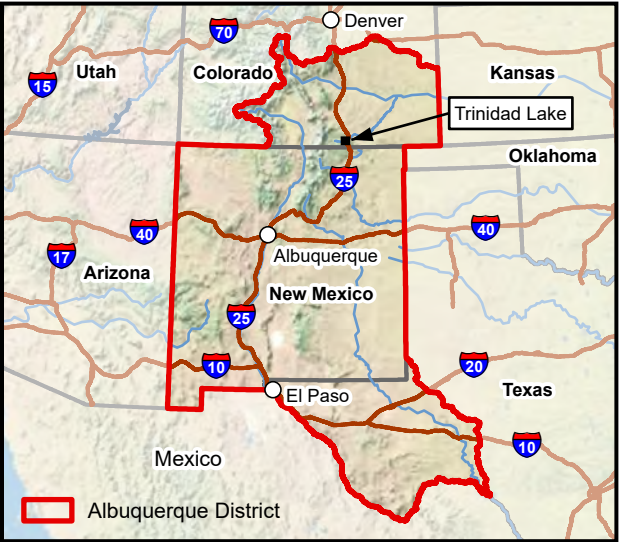
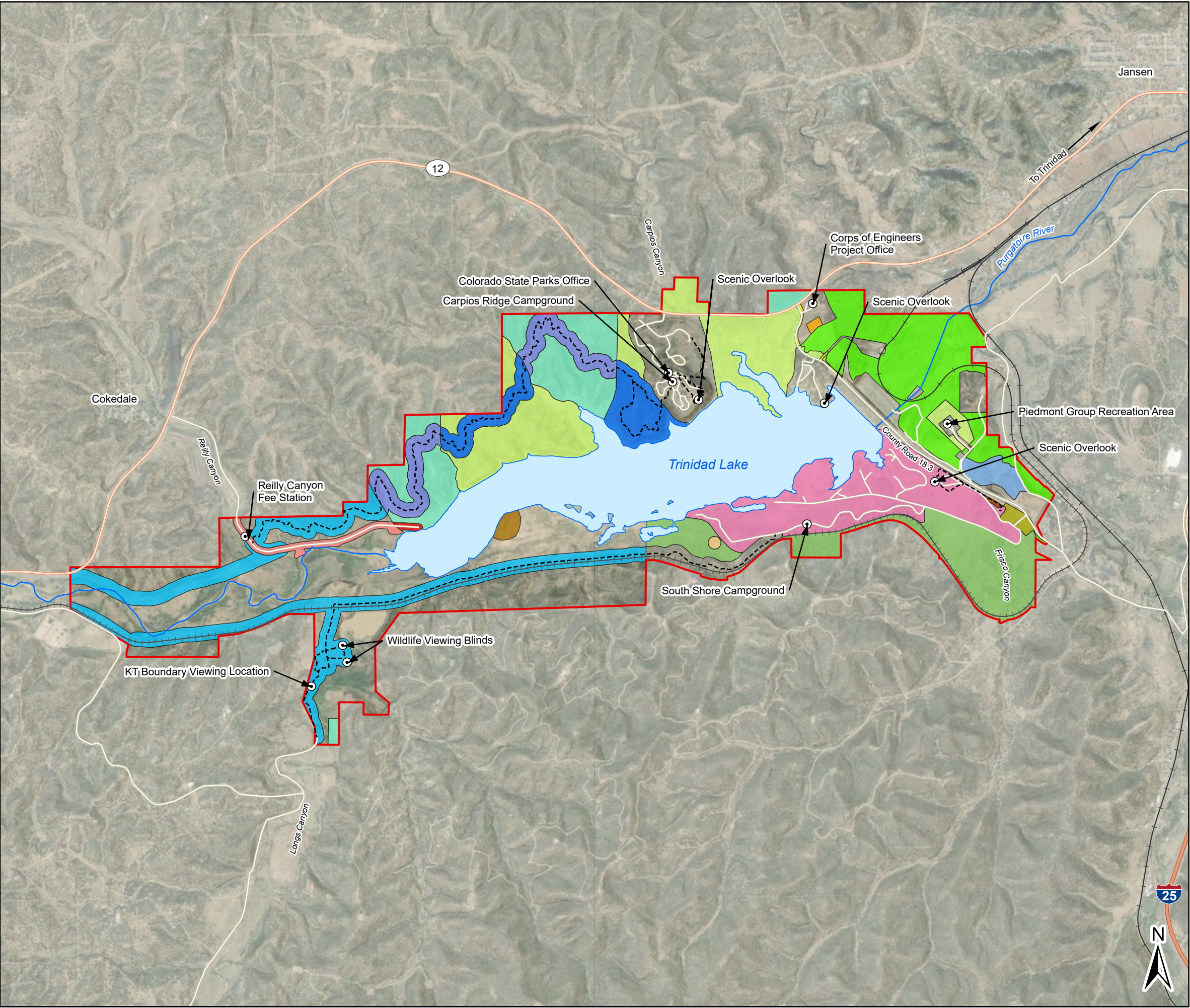
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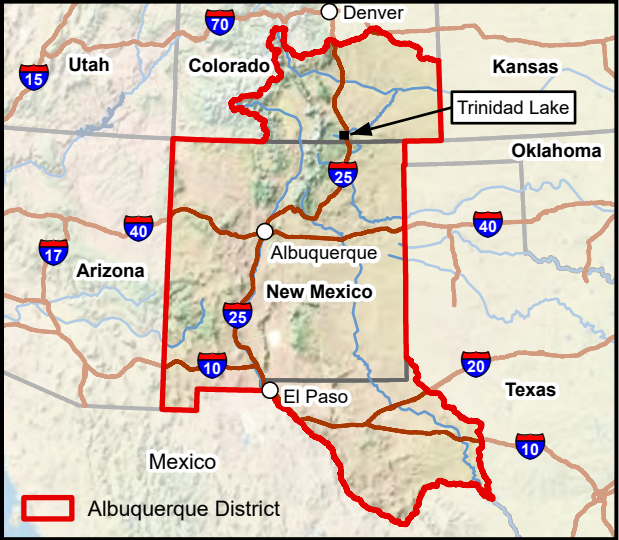
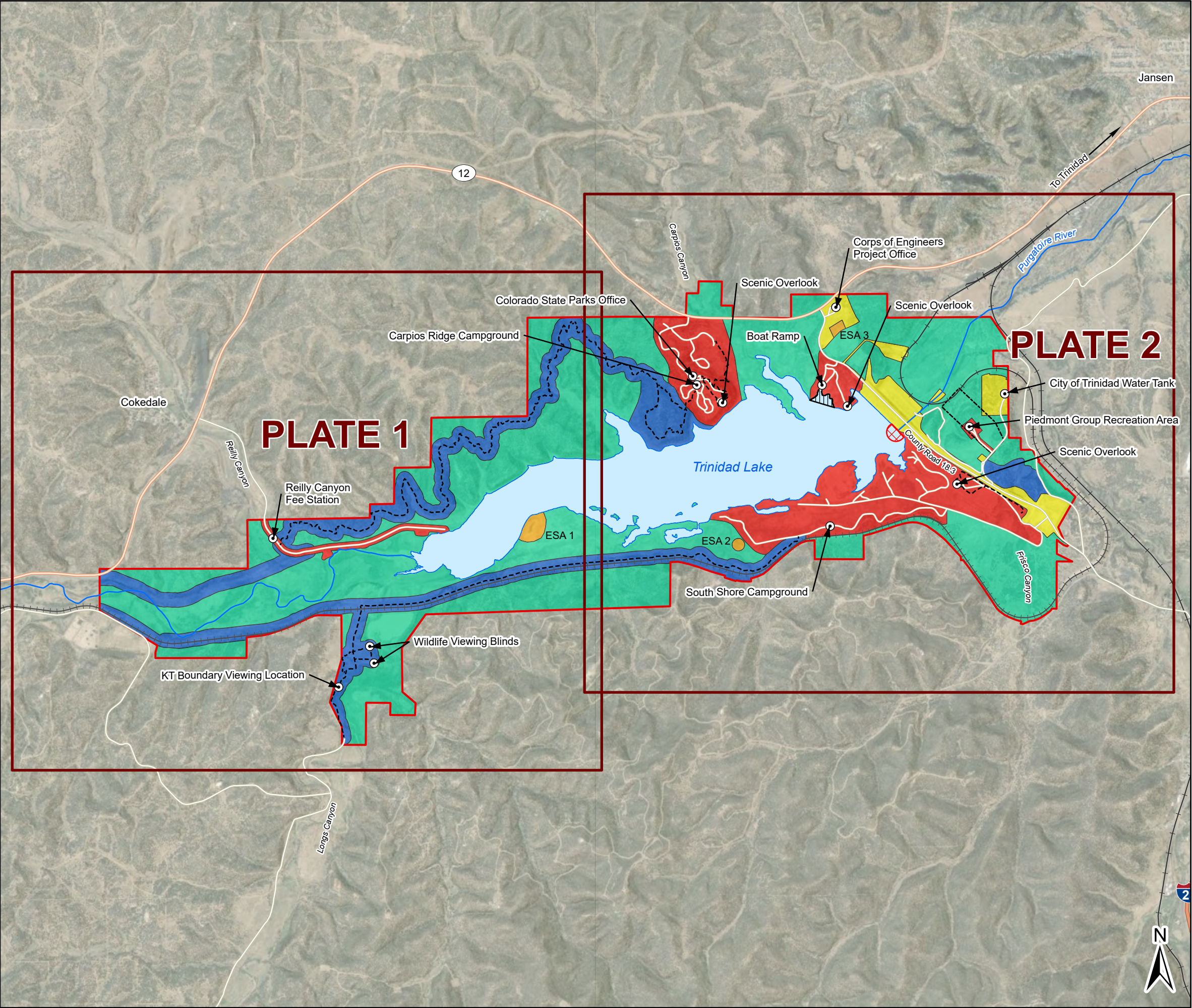
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LAND CLASSIFICATION CHANGES
1975 to 2023**

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MAP NO. TN23MP-LC-01



- Trail
- Interstate
- Main Road
- Local Road
- Railroad, Active
- ++++ Railroad, Inactive
- Purgatoire River
- Piedmont Group Parcel
- USACE Fee Boundary
- Land and Water Use**
- Project Operations
- High Density Recreation
- Environmentally Sensitive Area
- Low Density Recreation
- Wildlife Management
- Restricted Water Surface
- Designated No-Wake
- Open Recreation

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TRINIDAD LAKE

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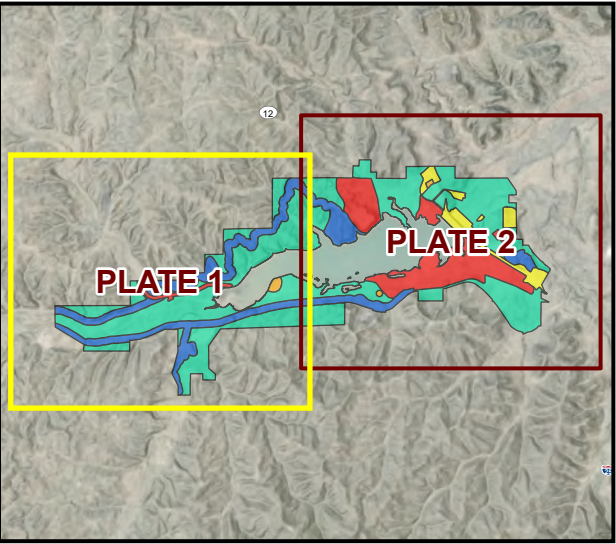
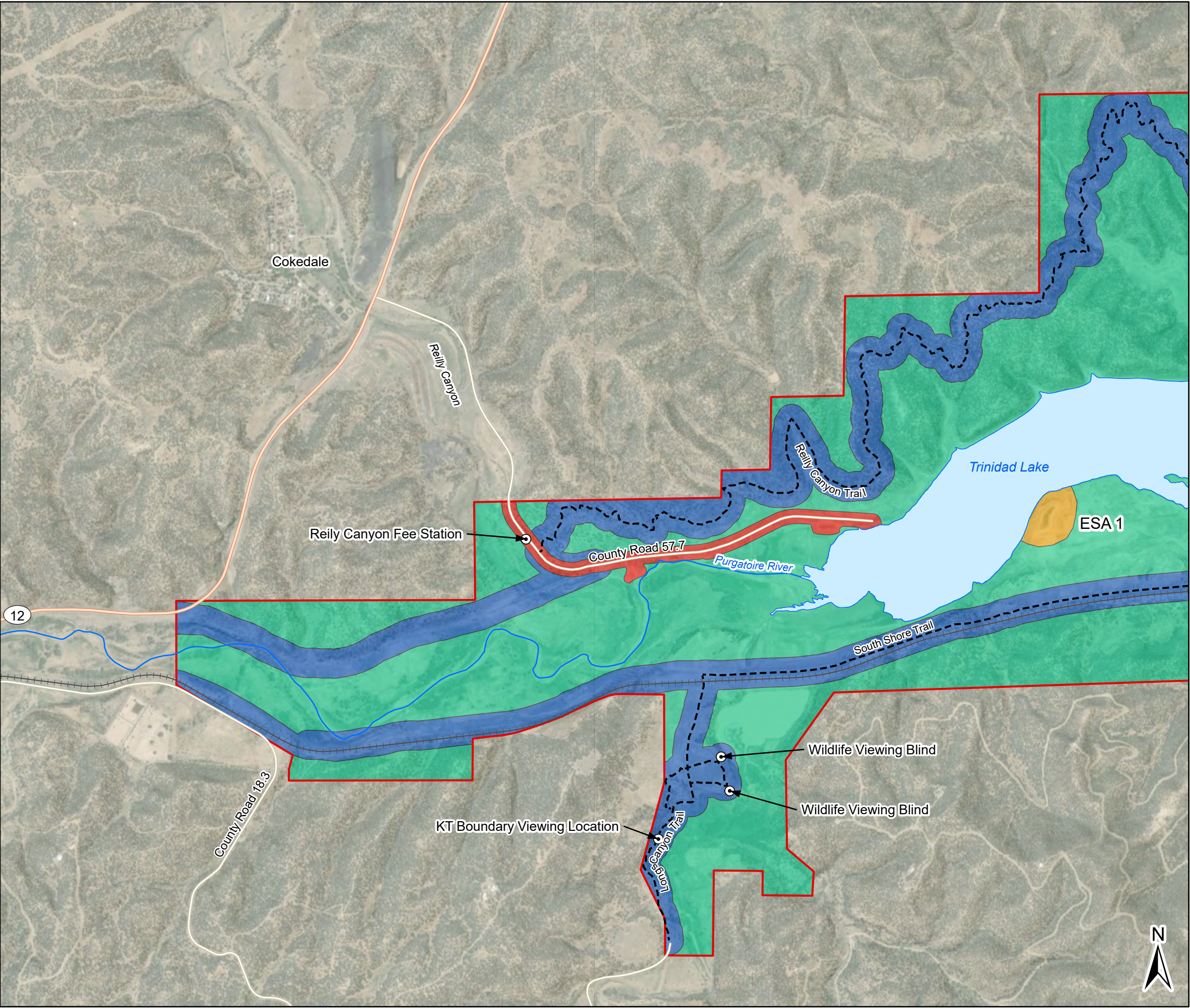
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LAND AND WATER CLASSIFICATION
INDEX PLATE**

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- Trail
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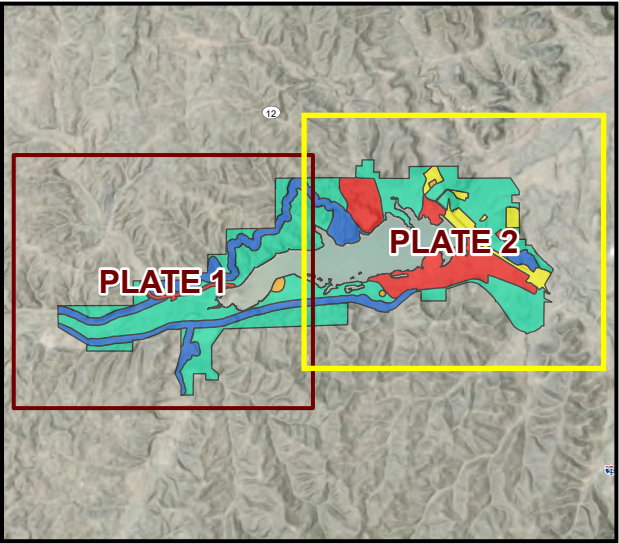
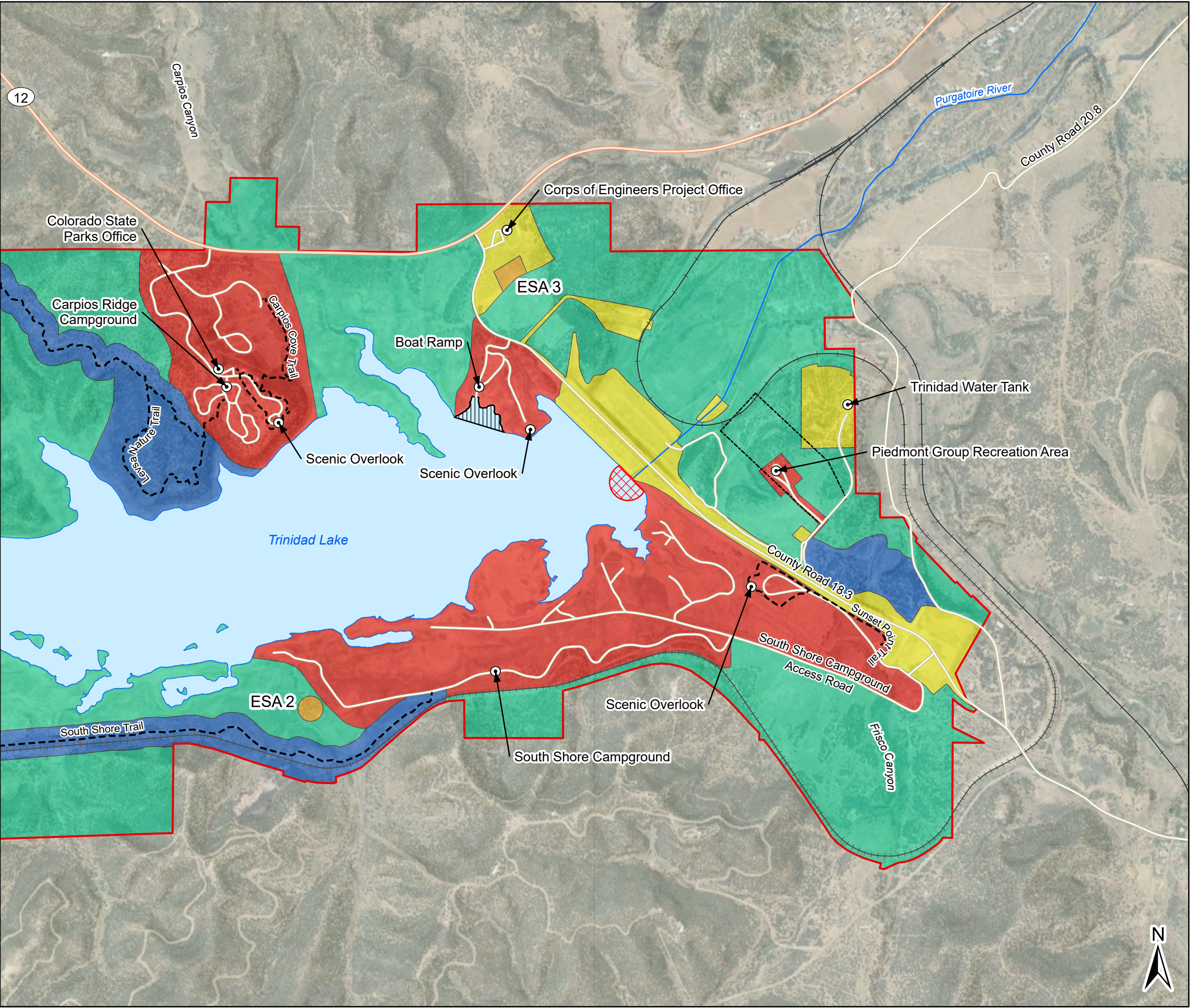
**TRINIDAD LAKE MASTER PLAN
LAND AND WATER CLASSIFICATION
PLATE 1**

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- Trail
- Main Road
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**TRINIDAD LAKE MASTER PLAN
LAND AND WATER CLASSIFICATION
PLATE 2**

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MAP NO.
TN23MP-OC-02

APPENDIX B - NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION

DRAFT Environmental Assessment for the 2023 Trinidad Lake Master Plan

Purgatoire River Basin
San Miguel County, NM



2023



ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental and socioeconomic impacts of the Master Plan of Trinidad Lake. This EA will facilitate the decision process regarding the Proposed Action and alternatives.

- SECTION 1** *INTRODUCTION* of the Proposed Action summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.
- SECTION 2** *PROPOSED ACTION AND ALTERNATIVES* examines alternatives for implementing the Proposed Action and describes the recommended alternative.
- SECTION 3** *AFFECTED ENVIRONMENT* describes the existing environmental and socioeconomic setting.
- ENVIRONMENTAL CONSEQUENCES* identifies the potential environmental and socioeconomic effects of implementing the Proposed Action and alternatives.
- SECTION 4** *CUMULATIVE IMPACTS* describes the impact on the environment that may result from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions.
- SECTION 5** *COMPLIANCE WITH ENVIRONMENTAL LAWS* provides a listing of environmental protection statutes and other environmental requirements.
- SECTION 6** *IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES* identifies any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented.
- SECTION 7** *PUBLIC AND AGENCY COORDINATION* provides a listing of individuals and agencies consulted during preparation of the EA.
- SECTION 8** *REFERENCES* provides bibliographical information for cited sources.
- SECTION 9** *ACRONYMS/ABBREVIATIONS*
- SECTION 10** *LIST OF PREPARERS* identifies persons who prepared the document and their areas of expertise.
- APPENDICES** A. NEPA Coordination and Scoping

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**Draft
ENVIRONMENTAL ASSESSMENT**

Proposed 2023 Master Plan

**Trinidad Lake
Las Animas County, Colorado**

SECTION 1: INTRODUCTION

This Environmental Assessment (EA) has been prepared by the United States Army Corps of Engineers (USACE) to evaluate the proposed 2023 Trinidad Lake Master Plan (Master Plan). The proposed Master Plan is a programmatic document that is subject to evaluation under the National Environmental Policy Act (NEPA) of 1969, (Public Law [PL] 91-190). This EA is an assessment of potential impacts that could result with the implementation of either the No Action Alternative or Proposed Action Alternative and has been prepared in accordance with the National Environmental Policy Act (NEPA, Public Law 91-190) as amended in 2020, the Council on Environmental Quality (CEQ) regulations (40 CFR, 1500–1508), and USACE regulations, including Engineer Regulation (ER) 200-2-2: Procedures for Implementing NEPA (1988).

The proposed Master Plan is a strategic land use management plan that provides direction to the orderly development, administration, maintenance, preservation, enhancement, and management of all natural, cultural and recreational resources of a USACE water resource project, which includes all government-owned lands in and around a reservoir. It is a vital tool for responsible stewardship and sustainability of the project's natural and cultural resources, as well as the provision of outdoor recreation facilities and opportunities on Federal lands associated with Trinidad Lake for the benefit of present and future generations. The proposed Master Plan identifies conceptual types and levels of activities, but does not include designs, project sites, or estimated costs. All actions carried out by USACE, other agencies, and individuals granted leases to USACE lands must be consistent with the proposed Master Plan. Therefore, the Master Plan must be kept current in order to provide effective guidance in USACE decision-making. The original Trinidad Lake Master Plan was last revised in 1975.

1.1 PROJECT DESCRIPTION

The Trinidad Dam and Lake Project (Project) is located within the Albuquerque District (SPA) in southeastern Colorado in Las Animas County located on the Purgatoire River which feeds the Arkansas River Basin. The Purgatoire River Basin includes 196 miles of river and covers a total area of 671 square miles of arid land. The project is 133 miles south of Colorado Springs, Colorado and 253 miles north east of Albuquerque, New Mexico. Project lands include a total of 2,732 acres; 3,365 acres (including a total of 633 surface acres of water) held in fee and 302 acres held in flowage easement.

Trinidad Lake is a multipurpose water resource project constructed and operated by USACE for the purpose of flood control, irrigation, and recreation. Environmental

stewardship, though not listed as a primary project purpose, is a major responsibility and inherent mission in the administration of federally owned lands.

The Trinidad Dam project was approved by the U.S Congress under the Flood Control Act of 1958. It was amended by Section 201, Title II, of the Flood Control Act of 1965, Public Law 89-298. This amendment relieved the city of Trinidad from making a cash contribution of 4.5 percent of the first cost allocated to flood control.

The Trinidad Dam is a rolled earth-filled structure 6,610 feet long with a crest width of 24 feet and maximum height of 200 feet above the streambed. The reservoir has a service spillway and two emergency spillways that are not gated. The dam primarily serves irrigation water supply and flood control needs within the Purgatoire River Basin. The dam protects the surrounding communities, including the City of Trinidad, CO, approximately four miles downstream of Trinidad Dam.

1.2 PURPOSE OF AND NEED FOR THE ACTION

The purpose of the Proposed Action is to ensure that the conservation and sustainability of the land, water, and recreational resources on Trinidad Lake are in compliance with applicable environmental laws and regulations and to maintain quality lands for future public use. The 2023 Master Plan is intended to serve as a comprehensive land and recreation management plan with an effective life of approximately 25 years.

The need for the Proposed Action is to bring the 1975 Master Plan up to date and to reflect ecological, socio-political, and socio-demographic changes that are currently impacting Trinidad Lake, as well as those changes anticipated to occur through 2048. In particular, changes in outdoor recreation trends, regional land use, population, current legislative requirements, and USACE management policy have all indicated the need to revise the plan. Additionally, increasing fragmentation of wildlife habitat, national policies related to climate change, growing demand for recreational access, and protection of natural resources are all factors affecting Trinidad Lake. In response to these continually evolving trends, USACE determined that a full revision of the 1975 plan would be required.

The following factors may influence reevaluation of management practices and land uses:

- Changes in national policies or public law mandates
- Operations and maintenance budget allocations
- Recreation area closures
- Facility and infrastructure improvements
- Cooperative agreements with stakeholder agencies (such as Colorado Parks and Wildlife [CPW] and the U.S. Fish and Wildlife Service [USFWS]) to operate and maintain public lands
- Evolving public concerns

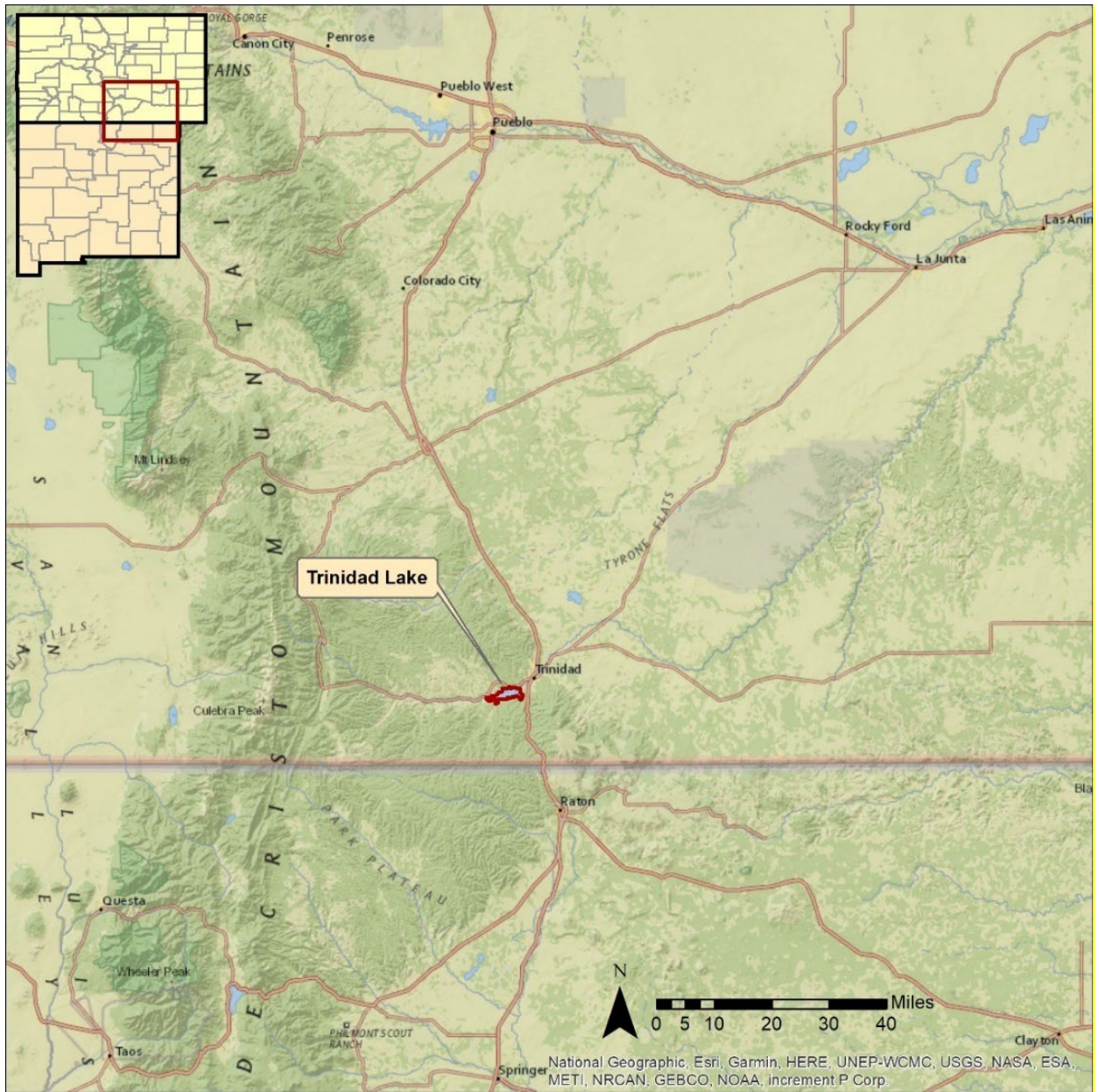
As part of the master planning process, the project delivery team evaluated public comments and current land uses, determined any necessary changes to land

classifications, and formulated proposed alternatives. As a result of public coordination and a public information meeting, alternatives were developed, and this EA was initiated.

1.3 SCOPE OF THE ACTION

This EA was prepared to evaluate existing conditions and potential impacts of proposed alternatives associated with the implementation of the 2023 Master Plan. The alternative considerations were formulated with special attention given to revised land classifications, new resource management objectives, and a conceptual resource plan for each land classification category. The proposed Master Plan is currently available and is incorporated into this EA by reference. This EA was prepared pursuant to the National Environmental Policy Act (NEPA), (Public Law 91-190) as amended in 2020. The application of NEPA to more strategic decisions not only meets the Council on Environmental Quality (CEQ) implementing regulations (CEQ 2005) and USACE regulations for implementing NEPA (USACE 1988), but also allows USACE to consider the environmental consequences of its actions long before any physical activity is implemented. Multiple benefits can be derived from such early consideration. Effective and early NEPA integration with the master planning process can significantly increase the usefulness of the proposed Master Plan to the decision maker.

Figure 1 – Location Map



SECTION 2: PROPOSED ACTION AND ALTERNATIVES

The project need is to revise the 1975 Master Plan so that it is compliant with current USACE regulations and guidance, incorporates public needs, and recognizes surrounding land use and recreational trends. As part of this process, which includes public outreach and comment, two alternatives were developed for evaluation, including a No Action Alternative. The alternatives were developed using land classifications that indicate the primary use for which project lands would be managed. The USACE regulations specify five possible categories of land classification: Project Operations (PO), High Density Recreation (HDR), Environmentally Sensitive Areas (ESA), and Multiple Resource Managed Lands (MRML). The MRML classification is divided into four subcategories: Low Density Recreation (MRML-LDR), Wildlife Management (MRML-WM), Vegetative Management (MRML-VM), and Future/Inactive Recreation (MRML-IFR) Areas.

The USACE guidance recommends the establishment of resource goals and objectives for purposes of development, conservation, and management of natural, cultural, and man-made resources at a project. Goals describe the desired end state of overall management efforts, whereas resource objectives are specific task-oriented actions necessary to achieve the overall 2023 Master Plan goals. Goals and objectives are guidelines for obtaining maximum public benefits while minimizing adverse impacts on the environment and are developed in accordance with 1) authorized project purposes, 2) applicable laws and regulations, 3) resource capabilities and suitabilities, 4) regional needs, 5) other governmental plans and programs, and 6) expressed public desires. The five project-wide management goals established for Trinidad Lake that were used in determining the Proposed Action, as well as the nationwide USACE Environmental Operating Principles, are discussed in detail in “Chapter 3: Resource Goals and Objectives” of the 2023 Master Plan, and are incorporated herein by reference (USACE, 2023).

The goals for Trinidad Lake Master Plan include the following:

- Goal A: Provide the best management practices (BMPs) to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes.
- Goal B: Protect and manage project natural and cultural resources through sustainable environmental stewardship programs.
- Goal C: Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining project natural resources.
- Goal D: Recognize the unique qualities, characteristics, and potentials of the project.
- Goal E: Provide consistency and compatibility with natural objectives and other state and regional goals and programs.

In addition to the above goals, USACE management activities are also guided by USACE-wide Environmental Operating Principles as follows:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse and sustainable condition is necessary to support life.
- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of USACE programs and act accordingly in all appropriate circumstances.
- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seek ways and means to assess and mitigate cumulative impacts on the environment; bring systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.
- Respect the views of individuals and groups interested in USACE activities; listen to them actively, and learn from their perspective in the search to find innovative win-win solutions to the nation's problems that also protect and enhance the environment.

Specific resource objectives to accomplish these goals can be found in Chapter 3 of the 2023 Master Plan.

USACE will not address dam operations or water management of Trinidad Lake under either the No Action or Proposed Action alternatives. Water management, which includes flood risk management and dam operations, is established in the Arkansas River Basin Master Water Regulation Manual and Trinidad Lake Water Control Manual.

2.1 ALTERNATIVE 1: NO ACTION ALTERNATIVE

The No Action Alternative serves as a basis for comparison to the anticipated effects of the other action alternatives, and its inclusion in this EA is required by NEPA and CEQ regulations (40 CFR § 1502.14(c)). Under the No Action Alternative, the USACE would not approve the adoption or implementation of the 2023 Master Plan. Instead, the USACE would continue to manage Trinidad Lake's natural resources as set forth in the 1975 Master Plan. The 1975 Master Plan would continue to provide the only source of comprehensive management guidelines and philosophy. However, the 1975 Master Plan is out of date and does not reflect the current ecological, socio-political, or socio-demographic conditions of Trinidad Lake. The No Action Alternative, while it does not meet the purpose of, or need for, the Proposed Action, serves as a benchmark of existing conditions against which federal actions can be evaluated, and as such, the No Action Alternative is included in this EA, as prescribed by CEQ regulations.

2.2 ALTERNATIVE 2: PROPOSED ACTION

Under the Proposed Action, the 2023 Master Plan would be reviewed, coordinated with the public, revised to comply with USACE regulations and guidance, and revised to reflect changes in the land management and land uses that have occurred over time or are desired in the near future. The keys to this alternative would be the revision of land classifications to USACE standards and the preparation of the resource objectives that would reflect current and projected needs and would be compatible with regional goals while sustaining Trinidad Lake's natural resources and providing recreational experiences for the next 25 years.

The proposed land classification categories are defined as follows:

- Project Operations (PO): Lands required for the dam, project office, and maintenance yards, and other areas used solely for the operation of Trinidad Lake.
- High Density Recreation (HDR): Lands developed for the intensive recreational activities for the visiting public, including day use and campgrounds. These areas could also be for commercial concessions and quasi-public development.
- Environmentally Sensitive Areas (ESA): Areas where scientific, ecological, cultural, or aesthetic features have been identified.
- Multiple Resource Management Lands (MRML): Allows for the designation of a predominate use with the understanding that other compatible uses may also occur on these lands.
 - MRML Low Density Recreation (MRML-LDR): Lands with minimal development or infrastructure that support passive recreational use (primitive camping, fishing, hunting, trails, wildlife viewing, etc.).
 - MRML Wildlife Management (MRML-WM): Lands designated for stewardship of fish and wildlife resources.
 - Future/Inactive Recreation (MRML-IFR): Lands that are set aside for future High Density Recreation development and use.
 - Vegetative Management (MRML-VM): Lands designated for stewardship of forest, prairie, and other native Vegetative cover.
- Water Surface: Allows for surface water zones.
 - Restricted: Water areas restricted for Trinidad Lake operations, safety, and security.
 - Designated No-Wake: Water areas to protect environmentally sensitive shoreline areas, recreational water access areas from disturbance, and areas to protect public safety.
 - Open Recreation: Water areas available for year-round or seasonal water-based recreational use.
 - Fish and Wildlife Sanctuary: Water areas that have either annual or seasonal restrictions to protect fish and wildlife within a designated area.

Table 2.2.1 shows the proposed classifications and acres contained in each classification, and Table 2.2.3 provides the justification for the proposed reclassification.

Table 2.2.1 - Proposed Trinidad Lake Land and Water Surface Classifications

1975 Land Class	1975 Acres	2023 Proposed Land Class	2023 Acres*
Project Operation	422	Project Operations	131
Recreation - Intensive Use**	561	High Density Recreation	449
-	-	Environmentally Sensitive Areas	14
Not Classified	984	Multiple-Resource Management Lands	1,078
Operations: Recreation – Low Density Use	516	Low Density Recreation	537
Operations: Wildlife Management	952	Wildlife Management	1,601
Total Land Areas	2,732	Total Land Acres	2,732
Water Surface	213	<i>Water Surface²</i>	
-	-	Open Recreation	627
-	-	Restricted	3
-	-	No Wake	3
Total Water Surface Acres²	633	Total Water Surface Acres²	633
Total Fee	3,365	Total Fee	3,365
Flowage Easement	302	Flowage Easement	302

1. Acreage of land areas is based on measurements using GIS technology and may vary slightly from official real estate records. Original acres as recorded in the 1975 Master Plan are 422 Project Operations, 539 Operations: Recreation – Intensive Use, 918 Operations: Wildlife Management, and 213 Water Surface, for a total of 2,608 land acres and 213 water acres.

2. Water surface based on 6,177 pool shoreline and is an estimate. Water Surface was not included in the 1975 Master Plan.

Table 1.2.3 – Justification for the Proposed Reclassification

Proposed Land Classification	Description of Changes ⁽²⁾	Justification
Project Operations (PO)	<p>The net decrease in Project Operations lands from 422 to 131 acres is due to the following:</p> <ul style="list-style-type: none"> • 4 acres REC-IU reclassified to PO. • 9 acres LDR to PO. • 2 acres PO reclassified to ESA. • 2 acres PO reclassified to HDR. • 25 acres PO reclassified to LDR. • 274 acres PO reclassified to WM. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary missions of flood risk management and water conservation. The largest factor in the reduction of PO acres was due to the reclassification of 274 acres to WM. These acres, largely behind the dam, are currently managed under WM therefore the study team determine it necessary to reclassify them as such. 118 acres originally classified as PO remained in the same land classification.</p>
High Density Recreation (HDR)	<p>The net decrease in High Density Recreation lands from 561 to 449 is due to the following:</p> <ul style="list-style-type: none"> • 103 acres REC-IU reclassified to LDR. • 4 acres REC-IU reclassified to PO. • 302 acres REC-IU reclassified to WM. • 266 acres LDR reclassified to HDR. • 3 acres previously not classified were classified as HDR. • 2 acres PO reclassified to HDR. • 25 acres WM reclassified to HDR. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>The net decrease in HDR was in part due to the reclassification of acres to WM on the north shore of the lake which were originally classified as HDR with the intent to develop recreation facilities which were never developed or minimally developed. The reclassification of these acres reflects the current and future use. Areas of LDR were also carved out of original HDR lands to capture the trail system around the lake. A large portion of the acres reclassified to HDR is in the area of the South Shore Campground. The new designation of HDR in this area also aligns with the current management of the campground area. 152 acres originally classified as REC-IU remained in the same land classification, but have been updated by name only as HDR.</p>

Environmentally Sensitive Areas (ESA)	<p>The classification of 14 acres as Environmentally Sensitive Areas resulted from the following:</p> <ul style="list-style-type: none"> • 2 acres LDR were reclassified as ESA. • 2 acres PO were reclassified as ESA. • 10 acres WM were reclassified as ESA. <p><i>* Any remaining acres not accounted for in above totals are attributed to changes in measuring technology.</i></p>	<p>Reclassification of 14 acres was determined by the study team to be necessary to provide a high level of protection for those areas supporting significant habitat, views, or cultural sites. Classifying these areas as ESA will afford these areas with the highest level of protection from disturbance. The reclassification of these acres will have no effect on current or projected public use.</p>
MRML – Low Density Recreation (LDR)	<p>The net decrease in Low Density Recreation acres from 516 acres to 537 acres resulted from the following:</p> <ul style="list-style-type: none"> • 103 acres REC-IU reclassified to LDR. • 2 acres LDR reclassified to ESA • 266 acres LDR reclassified to HDR. • 9 acres LDR reclassified to PO. • 199 acres LDR reclassified to WM. • 88 acres not previously classified were classified as LDR. • 25 acres PO to reclassified as LDR. • 281 acres WM reclassified to LDR. 	<p>LDR acres, previously captured in the 1975 MP on the southeast portion of the shoreline, were a large factor in proposed acre changes. This area currently hosts HDR features such as the Scenic Overlook and the South Shore Campground therefore changing the classification from LDR to HDR aligns with current use. Additionally, the trail on both the north and south sides of the lake was carved out of multiple land classifications and is now proposed as LDR. 38 acres originally classified as LDR remained in the same land classification.</p>

MRML – Wildlife Management (WM)	<p>The net increase in Wildlife Management lands from 952 acres to 1,601 acres is due to the following:</p> <ul style="list-style-type: none"> • 302 acres REC-IU reclassified to WM. • 199 acres from LDR reclassified to WM. • 189 acres previously not classified were classified as WM. • 275 acres PO reclassified to WM. • 10 acres WM reclassified to ESA. • 25 acres WM reclassified to HDR. • 281 acres WM reclassified to LDR. 	<p>The 302 acres reclassified from REC-IU to WM were a large contributing factor in the new increase. Areas originally classified as REC-IU to accommodate campground growth were never fully developed. The current management of these lands on the north shoreline between Carpios Ridge Campground and Reilly Canyon Fee Station are currently managed as WM. The same is true for the area between the Scenic Overlook and the USACE Project Office. Acres which were originally identified as PO behind the dam are also managed as WM, therefore the study team determined the PO acre should be reclassified to WM. 636 acres originally classified as WM remained in the same land classification.</p>
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Note: The land classification changes described in this table are the result of changes to parcels of land ranging from a few acres to over 100 acres. Acreages were measured using GIS technology. The acreage numbers provided are approximate and may differ from the official real estate acres.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

Other alternatives to the Proposed Action were initially considered as part of the scoping process for this EA. However, none met the purpose of, and need for, the Proposed Action or the current USACE regulations and guidance. Furthermore, no other alternatives addressed public concerns. Therefore, no other alternatives are being carried forward for analysis in this EA.

SECTION 3: AFFECTED ENVIRONMENT AND CONSEQUENCES

This section of the EA describes the potential impacts of the No Action and Proposed Action alternatives on the natural, cultural, and social resources found within the USACE Trinidad Lake Fee Boundary. A description of the existing condition of resources can be found in Chapter 2 of the proposed Master Plan. Only those resources that have the potential to be affected by implementation of either alternative will be analyzed in this EA. The following resources were excluded from further impact analysis because the No Action nor the Proposed Action would not have any impact on them: Hazardous, Toxic, and Radioactive Waste (HTRW).

Impacts (consequence or effect) can be either beneficial or adverse and can be either directly related to the action or indirectly caused by the action. Direct effects are caused by the action and occur at the same time and place (40 CFR § 1508.8 [a]). Indirect effects are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable (40 CFR § 1508.8 [b]). As discussed in this section, the alternatives may create temporary (less than 1 year), short-term (up to 3 years), long-term (3 to 10 years following the master plan revision), or permanent effects.

Whether an impact is significant depends on the context in which the impact occurs and the intensity of the impact (40 CFR § 1508.27). The context refers to the setting in which the impact occurs and may include society as a whole, the affected region, the affected interests, and the locality. Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. The intensity thresholds are defined as follows:

- Negligible: A resource would not be affected, or the effects would be at or below the level of detection, and changes would not be of any measurable or perceptible consequence.
- Minor: Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.
- Moderate: Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- Major: Effects on a resource would be obvious and long-term, and would have substantial consequences on a regional scale. Mitigation measures to offset the adverse effects would be required and extensive, and success of the mitigation measures would not be guaranteed.

3.1 LAND USE

Please refer to Chapter 4.2 of the proposed Master Plan for existing land use information in and around Trinidad Lake.

3.1.1 Alternative 1: No Action Alternative

The No Action Alternative for Trinidad Lake is defined as the USACE taking no action, which means the operation and maintenance of USACE lands at Trinidad Lake would continue as outlined in the existing 1975 Master Plan. No new resource analysis, resources management objectives, or land-use classifications would occur. Although this alternative does not result in a Master Plan that meets current regulations and guidance, there would be no significant negative long-term impacts on land uses on Trinidad Lake lands.

3.1.2 Alternative 2: Proposed Action

The objectives for revising the Trinidad Lake 2023 Master Plan were to describe current and foreseeable land uses, taking into account expressed public opinion and USACE policies that have evolved to meet day-to-day operational needs.

USACE intends to continue their partnership with Colorado Parks and CPW to operate the campground and day use areas by maintaining and improving existing facilities. Long range plans include additional campsites and integrating electricity into the campgrounds as time, resources, and budget permits.

The changes required for the Proposed Action were developed to help fulfill regional goals associated with good stewardship of land and water resources that would allow for continued use and development of project lands. Therefore, implementation of the Proposed Action would not result in significant negative long-term adverse impacts on land uses on project lands. For example, 14 acres would be reclassified as ESA compared to the No Action Alternative which contains 0 acres (see Table 2.2.1). The ESA reclassifications would afford protection to and potentially benefit wildlife, wildlife habitats, sensitive species habitat, and cultural resources. The protection and appropriate management of these areas aligns with Resource Goals B, C, D, and E as described in Section 3.3 of the revised Master Plan, as well as numerous natural resource objectives listed in Table 3.2 of the revised Master Plan. No decrease in recreational opportunities are expected as low impact recreation activities like hiking, fishing, and wildlife viewing can still occur within ESA classified lands. Maintaining the HDR and MRML-LDR areas allows for continued outdoor recreation opportunities at Trinidad Lake. New resource goals A, C, and E and several recreational objectives are supported by these reclassifications as described in Section 3.3 and Table 3.1 of the revised Master Plan. The new resources objectives will provide a level of consistency in beneficial management practices that would not occur with the No Action Alternative. ESA classification would allow for appropriate active management and protection for these sites.

No changes in land use are expected with 2023 Master Plan as recreation and project maintenance areas and operation areas will largely remain the same. As such, no short or long-term adverse impacts are expected to occur as a result of the 2023 Master Plan. Long-term minor beneficial impacts to land use from the proposed action will provide benefits and protections, such as ESA.

3.2 WATER RESOURCES

Please refer to section 2.1.4 of the proposed Master Plan for existing water resource information in and around Trinidad Lake.

3.2.1 Alternative 1: No Action Alternative

There would be no short or long term impacts on water resources as a result of implementing the No Action Alternative, since there would be no change to the existing Master Plan.

3.2.2 Alternative 2: Proposed Action

The reclassifications included in the Proposed Action would allow land management and land uses to be compatible with the goals of good stewardship of water resources. Land reclassifications and new resource objectives proposed as part of the Proposed Action would have a potential for minor long-term beneficial impacts on water quality. For example, 14 acres would be reclassified as ESA compared to the No Action Alternative which allocates 0 acres to strictly ESA (see Table 2.2.1). This directly supports resource goals B, D, and E and several natural resource management objectives, including the resource goals that minimize activities that disturb the aesthetic value and protect natural habitat, all of which are further described in Chapter 3 of the revised Master Plan. The net reduction of HDR lands from 561 acres to 449 acres will limit future intensive development, thus reducing the potential for erosion and sedimentation. Natural vegetation communities act as buffers to trap runoff, thus potentially reducing sedimentation. The 2023 Master Plan would provide minor long-term beneficial impacts to water resources.

3.3 CLIMATE

Please refer to section 2.1.2 and 2.1.3 of the proposed Master Plan for existing climate, climate change and greenhouse gas information in and around Trinidad Lake.

3.3.1 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions. There would be no impacts on climate as a result of implementing the No Action Alternative.

3.3.2 Alternative 2: Proposed Action

Revision of the Trinidad Lake Master Plan would have no impact on the climate of the study area. There would be no impacts on climate as a result of implementing the Proposed Action Alternative.

3.4 CLIMATE CHANGE AND GREEN HOUSE GAS (GHG)

CEQ drafted guidelines for determining meaningful GHG decision-making analyses. The CEQ guidance states that if a project would be reasonably anticipated to cause direct emissions of 25,000 metric tons or more of carbon dioxide (CO₂)-equivalent (CO₂e) GHG emissions per year, the project should be considered in a qualitative and quantitative manner in NEPA reporting (CEQ, 2015). CEQ proposes this

as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHG (CEQ, 2015).

EPA records show that there are no GHG contributors within the area of Trinidad Lake. The general operations and recreation facilities associated with Trinidad Lake does not approach the proposed reportable limits. Trinidad Lake Project Office does have management plans in place such as vegetation management plans, natural resources management plans, and public education and outreach programs, to protect regional natural resources. In addition, the Trinidad Lake Project Office will continue monitoring programs as required to meet applicable laws and policies.

The USACE has prepared an Adaptation Plan in response to the various EOs addressing climate change. The Adaptation Plan includes the following USACE policy statement:

It is the policy of USACE to integrate climate change preparedness and resilience planning and actions in all activities for the purpose of enhancing the resilience of our built and natural water-resource infrastructure and the effectiveness of our military support mission, and to reduce the potential vulnerabilities of that infrastructure and those missions to the effects of climate change and variability.

The USACE manages project lands and recreational programs to advance broad national climate change mitigation goals, including, but not limited to, climate change resilience and carbon sequestration, and related USACE policy.

3.4.1 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions. There would be no impacts on climate change or contributions to GHG emissions and climate change as a result of implementing the No Action Alternative.

3.4.2 Alternative 2: Proposed Action

Under the Proposed Action, current Trinidad Lake project management plans and monitoring programs would not be changed. There would be no impacts on climate change or contributions to GHG emissions as a result of implementing the 2023 Master Plan. In the event that GHG emission issues become significant enough to impact the current operations at Trinidad Lake, the 2023 Master Plan and all associated documents would be reviewed and revised as necessary.

3.5 AIR QUALITY

Please refer to section 2.2.9 of the proposed Master Plan for existing air quality information in and around Trinidad Lake.

3.5.1 Alternative 1: No Action Alternative

There would be no impacts on air quality as a result of implementing the No Action Alternative, since there would be no change to the existing 1975 Master Plan.

3.5.2 Alternative 2: Proposed Action

Existing operation and management of Trinidad Lake is compliant with the Clean Air Act and would not change with implementation of the 2023 Master Plan. Land reclassifications and new resource objectives proposed as part of the Proposed Action would have a potential for negligible long-term beneficial impact on air quality. The new resources goals, primarily B and C, along with several recreational and natural resource management objectives regarding sustainability and the conservation of natural areas are supported by the proposed land classifications and are further described in Chapter 3 of the revised Master Plan. The new resources objectives will provide a level of consistency in beneficial management practices that would not occur with the No Action Alternative. Because the proposed Master Plan revision does not entail ground disturbance or greenhouse gas emissions, and the project area does not take place in an air quality designated nonattainment or maintenance areas, a General Air Conformity Analysis and Determination is not required. The 2023 Master Plan would provide negligible long-term benefits to air quality.

3.6 TOPOGRAPHY, GEOLOGY, AND SOILS

Please refer to section 2.1.3 and 2.1.5 of the proposed Master Plan for existing topography, geology, and soils information in and around Trinidad Lake.

3.6.1 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions, so there would be no impacts on topography, geology, soils, sedimentation, or shoreline erosion as a result of implementing the No Action Alternative.

3.6.2 Alternative 2: Proposed Action

Topography, geology, and soils were considered during the refining process of land reclassifications for the 2023 Master Plan. Total acreage for HDR was reduced from 561 acres to 449 acres. This net reduction is based on the realization that the amount of acreage originally planned for intensive recreation use per the 1975 Master Plan exceeded the amount necessary to meet public needs and therefore were not being fully utilized. Areas currently developed as park would continue to operate as parks and no change would occur. However, some of the lands designated as Recreation – Intensive Use would be reclassified to various other land use classifications to better reflect historic use patterns and current land management efforts. As such, no additional intensive use facilities would be constructed outside of existing intensive use areas.

Land reclassifications and new resource objectives proposed as part of the Proposed Action would have a potential long-term beneficial impact on soil conservation at Trinidad Lake. The reduction of Recreation Areas will limit future intensive development, thus reducing the potential impacts of soil erosion. The new resources

objectives will provide a level of consistency in beneficial management practices that would not occur with the No Action Alternative. As described in Chapter 3 of the revised Master Plan, resource goals B, C, D, and E and several natural resource management objectives, particularly those that concern addressing unauthorized uses of public land and evaluating erosion control and addressing sedimentation issues, are supported by the proposed land classifications. Therefore, under the Proposed Action, there would be long-term minor beneficial impacts to topography, geology, soils, or Prime Farmland as a result of implementing the 2023 Master Plan.

3.7 NATURAL RESOURCES

Please refer to section 2.2 of the proposed Master Plan for existing natural resources information in and around Trinidad Lake.

3.7.1 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions; therefore, no major long-term adverse impacts on natural resources would be anticipated as a result of implementing the No Action Alternative.

3.7.2 Alternative 2: Proposed Action

The proposed net increase of ESA by 14 acres would cause major long-term beneficial impacts to natural resources within these areas. The ESA classification provides the highest form of protection for natural resources. This proposed change would then protect natural resources from various types of adverse impacts such as habitat fragmentation.

The reclassifications, resource management objectives, and resource plan required for the Proposed Action would allow land management and land uses to be compatible with the goals of good stewardship of natural resources. The Proposed Action would allow project lands to continue supporting the USFWS missions associated with wildlife conservation and implementation of operational practices that would protect and enhance wildlife and fishery populations and habitat. In addition, the Proposed Action would be compatible with conservation principles and measures to protect migratory birds as mandated by EO 13186.

3.8 THREATENED AND ENDANGERED SPECIES

Please refer to section 2.2.4 of the proposed Master Plan for existing information on threatened and endangered species within the USACE fee owned boundary. Table 3.8.1 below includes 4 Threatened, Endangered, or Candidate species that USFWS identified that could potentially be found at Trinidad Lake.

Table 3.8.1 – Threatened, Endangered, and Candidate Species

Common Name	Scientific Name	Federal or State Listed	Listing Status
Gray Wolf	<i>Canis lupus</i>	Federal	Endangered
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Federal	Threatened
New Mexico meadow jumping mouse	<i>Zapus hudsonius luteus</i>	Federal	Endangered
Monarch Butterfly	<i>Danaus plexippus</i>	Federal	Candidate

Source: USFWS, Colorado Wildlife Division

3.8.2 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions, which have had no effect on federally listed species. USACE has determined that implementation of the No Action Alternative would have No Effect on any federally threatened or endangered species that may occur within the study area.

3.8.3 Alternative 2: Proposed Action

Under the Proposed Action, the USACE would continue cooperative management plans with the USFWS and CPW to preserve, enhance, and protect wildlife habitat resources. To further management opportunities and beneficially impact habitat diversity, the reclassifications proposed in the 2023 Master Plan include 14 acres as ESA.

The ESA reclassification recognizes those areas having the highest ecological value and ensures they are given the highest order of protection among possible land classifications. The high degree of protection for ESA means that any threatened or endangered species, and state-listed plant and animal species found in these areas, will benefit from higher quality habitats and less disturbances. Because the Master Plan revision does not entail ground disturbing activities, classifies 14 acres as ESA, and establishes natural resource management objectives that aim to preserve, conserve and enhance natural resources at Trinidad Lake, USACE has determined that the Draft 2022 Trinidad Lake Master Plan revision will have no effect on federally listed threatened and endangered species. As a result, there would be minor long-term benefits due to reclassification as ESA, as it benefits any possible T&E species habitat.

3.9 INVASIVE SPECIES

Please refer to section 2.2.5 of the proposed Master Plan for existing information on invasive species within the USACE fee owned boundary.

3.9.1 Alternative 1: No Action Alternative

The No Action Alternative does not involve any activities that would contribute to changes in existing conditions, so Trinidad Lake would continue to be managed

according to the existing invasive species management practices. There would be no long-term major adverse impacts from invasive species as a result of implementing the No Action Alternative.

3.9.2 Alternative 2: Proposed Action

The land reclassifications, resource objectives, and resource plan required to revise the Trinidad Lake Master Plan are compatible with the lake's invasive species management practices. The addition of 14 acres classified as ESA may provide long-term benefits as these areas may receive additional invasive species management. The objectives developed under the proposed action as explained in detail in Chapter 3 of the revised Master Plan will result in minor, long-term beneficial impacts by reducing and preventing the spread of invasive species. In summary, these objectives are: monitoring for invasive species presence; addressing unauthorized uses of public lands which may spread invasive species; and evaluating erosion control as eroding lands provide colonization opportunities for invasive plant species. All of these would include a public outreach and education emphasis.

3.10 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

Please refer to section 2.3 of the proposed Master Plan for existing information on cultural, historical, and archaeological resources within the USACE fee owned boundary.

3.10.1 Alternative 1: No Action Alternative

There would be no major adverse impacts on cultural resources as a result of implementing the No Action Alternative, as there would be no changes to the existing 1975 Master Plan. However, maintaining existing land classifications would not recognize the presence or importance of cultural resources, which could lead to long-term negative moderate or major impacts as a result of implementing the No Action Alternative.

3.10.2 Alternative 2: Proposed Action

Impacts on cultural, historical, and archaeological resources were considered during the refinement processes of land reclassifications. Based on previous surveys at Trinidad Lake, the required reclassifications, resource management objectives, and resource plan would not change current cultural resource management plans or alter areas where these resources exist. The Proposed Action would potentially result in long-term and moderate beneficial impacts with the reclassification of additional 14 acres to ESA as those lands afford more protection against development and ground disturbing activities. Therefore, no significant adverse impacts on cultural, historical, and archaeological resources would occur as a result of implementing revisions to Trinidad Lake Master Plan. All individual USACE undertakings at Trinidad Lake are subject to compliance with Section 106 of the NHPA; Section 106 compliance for routine undertakings at Trinidad is currently governed by a PA as noted above. In addition, stewardship priorities and goals as noted in the revised Master Plan (and required under Section 110 of the NHPA as well as other laws and regulations) will continue to be developed as the USACE completes and updates a Historic Properties

Management Plan (HPMP) for Trinidad Lake as required by USACE regulation ER-1130-2-540.

3.11 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

Please refer to section 2.4 of the proposed Master Plan for existing socioeconomic and environmental justice information in and around Trinidad Lake.

3.11.1 Alternative 1: No Action Alternative

Under the No Action Alternative, there would be no changes to the existing Master Plan, with the USACE continuing to manage Trinidad Lake natural resources as set forth in the 1975 Master Plan. There would be no major adverse long-term impacts on socioeconomic resources. Beneficial socioeconomic impacts existing as a result of the implementation of the 1975 Master Plan would continue, as visitors would continue to come to the lake from surrounding areas. In addition to camping in campgrounds, many visitors purchase goods such as groceries, fuel, and camping supplies semi-locally, eat in semi-local restaurants, stay in semi-local hotels and resorts, and shop in local retail establishments. These activities would continue to bring revenues to local companies, provide jobs for semi-local residents, and generate local and state tax revenues. There would be no disproportionately high or adverse impacts on minority or low-income populations or children with the implementation of the No Action Alternative (EPA 2023 A/B).

3.11.2 Alternative 2: Proposed Action

Trinidad Lake is beneficial to the semi-local economy through indirect job creation and local spending by visitors, and also offers a variety of recreation opportunities and uses innovative maintenance and planning programs to minimize usage fees. The 449 acres of HDR and 1,615 acres of MRML-LDR will continue to provide recreation opportunities. The 14 acres of ESA land will also allow minimally invasive recreation activities such as wildlife viewing and hiking.

Since recreational opportunities remain abundant, and the revised Master Plan recognizes and reinforces projected recreational trends, there would be minor, long-term beneficial impacts on area economic stability and environmental justice populations resulting from the revision of the 1975 Master Plan.

3.12 RECREATION

Please refer to section 2.5.3 of the proposed Master Plan for existing recreation information in and around Trinidad Lake.

3.12.1 Alternative 1: No Action Alternative

Under the No Action Alternative, there would be no major adverse long-term impacts on recreational resources, as there would be no changes to the existing Master Plan.

3.12.2 Alternative 2: Proposed Action

The primary objective for revising the Trinidad Lake 1975 Master Plan is to capture current land use and management that has evolved to meet day-to-day operational needs. Under the Proposed Action, the required revisions to the Trinidad Lake Master Plan would be compatible with current recreation management plans and recognize regional and national outdoor recreation trends. The reclassification changes required for the Proposed Action were developed to enhance regional goals associated with good stewardship of land and water resources that would allow for continued recreational use and development of project lands. The 449 acres of HDR and acres of 1,615 MRML-LDR will continue to provide recreation opportunities. The 14 acres of ESA land will also allow minimally invasive recreation activities such as wildlife viewing and hiking. Since recreational opportunities remain abundant, and the revised Master Plan recognizes and reinforces projected recreational trends, there would be minor, long-term beneficial impacts on recreation resulting from the revision of the Master Plan from the Proposed Action.

3.13 AESTHETIC RESOURCES

Please refer to section 2.2.6 of the proposed Master Plan for existing aesthetic resource conditions in and around Trinidad Lake.

3.13.1 Alternative 1: No Action Alternative

There would be no short- or long-term, minor, moderate, or major, beneficial, or adverse impacts on visual resources as a result of implementing the No Action Alternative, as there would be no changes to the existing 1975 Master Plan.

3.13.2 Alternative 2: Proposed Action

Trinidad Lake currently plays a pivotal role in availability of parks in Las Animas County. Even though the amount of acreage available for HDR reduces from 561 acres to 449 acres in the 2023 Master Plan, this land reclassification reflect changes in land management and land uses that have occurred since 1975 at Trinidad Lake. The conversion of these lands would have no effect on current or projected public use or visual aesthetics.

Furthermore, the addition of 14 acres of land classified as ESAs would protect lands that are aesthetically pleasing at Trinidad Lake and limit future development. Natural Resources Management Objectives for the lake will continue to minimize activities which will disturb the scenic beauty and aesthetics of the lake.

Therefore, the Proposed Action would result in minor, long-term beneficial impacts to the aesthetic resources of Trinidad Lake.

3.14 HAZARDOUS MATERIALS AND SOLID WASTE

This section describes existing conditions within the Project area with regard to potential environmental contamination and the sources of releases to the environment. Contaminants could enter the lake environment via air or water pathways or through illegal trash dumping. While no marinas occur at Trinidad Lake, there are numerous public campgrounds and recreational areas that could contribute small amounts of

hazardous materials and waste to the watershed. USACE and area law enforcement officials work cooperatively to apprehend those responsible for illegal trash dumping.

3.14.1 Alternative 1: No Action Alternative

There would be no major adverse long-term impacts on hazardous, toxic, radioactive, or solid wastes as a result of implementing the No Action Alternative, as there would be no changes to the existing Master Plan.

3.14.2 Alternative 2: Proposed Action

The land reclassifications required to revise the Master Plan would be compatible with Trinidad Lake hazardous and toxic waste and solid waste management practices. Therefore, no major, adverse, long-term impacts due to hazardous, toxic, radioactive, or solid wastes would occur as a result of implementing the 2023 Master Plan.

3.15 HEALTH AND SAFETY

Please refer to section 2.2.10 of the proposed Master Plan for information concerning health and safety in and around Trinidad Lake fee owned boundary.

3.15.1 Alternative 1: No Action Alternative

Under the No Action Alternative, the 1975 Master Plan would not be revised. No major, adverse, long-term impacts on human health or safety would be anticipated.

3.15.2 Alternative 2: Proposed Action

Under the Proposed Action, the required revisions to the Trinidad Lake 1975 Master Plan would be compatible with project safety management plans. The project would continue to have reporting guidelines in place should water quality become a threat to public health. Existing regulations and safety programs throughout the Trinidad Lake area would continue to be enforced to ensure public safety. Therefore, there would be no major, adverse, long-term impacts on public health and safety as a result of implementing the Proposed Action.

3.16 SUMMARY OF CONSEQUENCES AND BENEFITS

Table 3.16 provides a tabular summary of the consequences and benefits for the No Action and Proposed Action alternatives for each of the 15 assessed resource categories

Table 3.16 - Summary of Consequences and Benefits

Resource	Change Resulting from Revised Master Plan	Environmental Consequences No Action Alternative	Environmental Consequences Proposed Action	Benefits Summary
Land Use	No effect on private lands. Minor to moderate benefit from placing emphasis on protection of wildlife and environmental values on USACE land and maintaining current level of developed recreation facilities.	Fails to recognize recreation trends and regional natural resource priorities.	Recognizes recreation trends and regional natural resource priorities.	Land classification changes and new resource objectives fully recognize passive use recreation trends and regional environmental values.
Water Resources Including Groundwater, Wetlands, and Water Quality	Minor change with benefits to recognize value of wetlands.	Fails to recognize the water quality benefits of good land stewardship and need to protect wetlands.	Promotes restoration and protection of wetlands and good land stewardship.	Specific resource objective promotes restoration and protection of wetlands.
Climate	Minor change to recognize need for sustainable, energy efficient design.	Fails to promote sustainable, energy efficient design.	Promotes land management practices and design standards that promote sustainability.	Specific resource objectives promote national climate change mitigation goal. Leadership in Energy and Environmental Design (LEED) standards for green design, construction, and operation activities will be employed to the extent practicable.
Climate Change and Greenhouse Gases	Same as for Climate.	Same as for Climate.	Same as for Climate.	Same as for Climate.
Air Quality	Negligible change to help reduce air emissions.	No effect.	Promotes activities and goals that will help to reduce emissions.	Reduces HDR, which in turn reduces the motor vehicle exhaust that is produced. New resource objectives also help to reduce emissions.

Resource	Change Resulting from Revised Master Plan	Environmental Consequences No Action Alternative	Environmental Consequences Proposed Action	Benefits Summary
Topography, Geology and Soils	Beneficial change to place emphasis on good stewardship of land and water resources.	Fails to specifically recognize known and potential soil erosion problems.	Encourages good stewardship that would reduce existing and potential erosion.	Specific resource objectives call for stopping erosion from overuse and land disturbing activities.
Natural Resources	Major benefits through land reclassification and resource objectives.	Fails to recognize ESAs, and regional priorities calling for protection of wildlife habitat.	Gives full recognition of sensitive resources and regional trends and priorities related to natural resources.	Reclassification of lands included 14 acres of ESA and a net increase in lands emphasizing wildlife management.
Threatened & Endangered Species and State-Listed Plant and Animal Species	Moderate benefits from land reclassifications for recognizing both federal and state-listed species.	Fails to recognize current federal and state-listed species.	Fully recognizes federal and state-listed species.	The master plan sets forth the most recent listing of federal and state-listed species.
Invasive Species	Minor change to recognize several recent and potentially aggressive invasive species.	Fails to recognize current invasive species and associated problems.	Fully recognizes current species and the need to be vigilant as new species may occur.	Specific resource objectives specify that invasive species shall be monitored and controlled as needed.
Cultural, Historical and Archaeological Resources	Minor change to recognize current status of cultural resource.	Included cursory information about cultural resources that is inadequate for future management and protection.	Recognizes the presence of cultural resources and places emphasis on protection and management.	Reclassification of lands and specific resource objectives were included for protection of cultural resources.
Socioeconomics and Environmental Justice	No change.	No effect.	No effect.	No added benefit.
Recreation	Negligible benefits to outdoor recreation programs.	Fails to recognize current outdoor recreation trends.	Fully recognizes current outdoor recreation trends and places special emphasis on trails.	Specific management objectives focused on outdoor recreation opportunities and trends are included.

Resource	Change Resulting from Revised Master Plan	Environmental Consequences No Action Alternative	Environmental Consequences Proposed Action	Benefits Summary
Aesthetic Resources	Minor benefits through land reclassification and resource objectives.	Fails to minimize activities that disturb the scenic beauty and aesthetics of the lake.	Promotes activities that limit disturbance to the scenic beauty and aesthetics of the lake.	Specific management objectives to minimize activities that disturb the scenic beauty and aesthetics of the lake.
Hazardous Materials and Solid Waste	No change.	No effect.	No effect.	No added benefit.
Health and Safety	Minor change to promote public safety awareness.	Fails to emphasize public safety programs.	Recognizes the need for public safety programs.	Includes specific management objectives to increase water safety outreach efforts. Also, classifies 6 acres of water surface as restricted and designated no-wake for public safety purposes.

SECTION 4: CUMULATIVE IMPACTS

NEPA regulations updated May 20, 2023 require that cumulative impacts of a proposed action be assessed and disclosed in an EA. Council on Environmental Quality (CEQ) regulations define a cumulative impact as *“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”* (40 CFR 1508.7). Impacts can be positive or negative.

By Memorandum dated June 24, 2005 from the Chairman of the CEQ to the Heads of Federal Agencies entitled “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis”, CEQ made clear its interpretation that “...generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions...” and that the “...CEQ regulations do not require agencies to catalogue or exhaustively list and analyze all individual past actions.” CEQ guidance also recommends narrowing the focus of cumulative impacts analysis to important issues of national, regional, or local significance.

The initial step of the cumulative impact analysis uses information from the evaluation of direct and indirect impacts in the selection of environmental resources that should be evaluated for cumulative impacts. A proposed action would not contribute to a cumulative impact if it would not have a direct or indirect effect on the resource.

Based on a review of the likely environmental impacts analyzed in Section 3 (Affected Environment and Consequences) the USACE determined that the analysis of cumulative impacts would be limited to: land use, water resources, climate, climate change, GHG, air quality, topography, geology, soils, natural resources, threatened and endangered species, invasive species, cultural resources, historical resources, archeological resources, recreation, aesthetic resources, and health & safety. With respect to the remaining resource topics such as socioeconomic & environmental justice and hazardous, toxic, & radioactive waste, both the No Action and Proposed Action alternatives would either:

1. Not result in any direct or indirect impacts and therefore would not contribute to a cumulative impact; or,
2. That the nature of the resource is such that impacts do not have the potential to cumulate. For example, impacts related to geology are site specific and do not cumulate; or,
3. That the future with or future without project condition analysis is a cumulative analysis and no further evaluation is required. For example, because climate change is global in nature, the future without project condition and future with project condition analysis is inherently a cumulative impact assessment.

For each resource topic carried forward for cumulative impact analysis, the timeframe for analysis is the time since the 1975 Master Plan was implemented (past) and thru the proposed life of the 2023 Master Plan (25 years – to 2047). The zone of interest for economics is the same used in Section 3.10.

4.1 Past Impacts within the zone of interest.

The Trinidad Dam project was approved by the U.S Congress December 22, 1944 under the Flood Control Act of 1958. It was amended by Section 201, Title II, of the Flood Control Act of 1965, Public Law 89-298. This amendment relieved the city of Trinidad from making a cash contribution of 4.5 percent of the first cost allocated to flood control.

Several laws place emphasis on environmental stewardship of Federal lands. These laws, including, but not limited to, Public Law 91-190, National Environmental Policy Act of 1969 (NEPA), and Public Law 86-717 place emphasis on the environmental stewardship of Federal lands and USACE-administered Federal lands, respectively.

4.2 Current and Reasonably Foreseeable Projects Within and Near the Zone Of Interest

Future management of the 302 acres of Flowage Easement Lands at Trinidad Lake includes routine inspection of these areas to ensure that the Government's rights specified in the easement deeds are protected. In almost all cases, the Government acquired the right to prevent placement of fill material or habitable structures on the easement area. Placement of any structure that may interfere with the USACE flood risk management and water conservation missions may also be prohibited. At the time of this publication, there are not any major projects like road expansion, new industrial centers, neighborhoods being built, and new hiking trails in and around Trinidad Lake.

National USACE policy set forth in ER 1130-2-550, Appendix H, states that USACE lands would, in most cases, only be made available for roads that are regional arterials or freeways (as defined in ER 1130-2-550). All other types of proposed roads, including driveways and alleys, are generally not permitted on USACE lands. The proposed expansion or widening of existing roadways on USACE lands would be considered on a case-by-case basis.

4.3 Analysis Of Cumulative Impacts

Impacts on each resource were analyzed according to how other actions and projects within the zone of interest might be affected by the No Action Alternative and Proposed Action. Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. These intensity thresholds were previously defined in Section 3.0. Moderate growth and

development are expected to continue in the vicinity of Trinidad Lake and cumulative adverse impacts on resources would not be expected when added to the impacts of activities associated with the Proposed Action or No Action Alternative. A summary of the anticipated cumulative impacts on each resource is presented below.

4.3.1 Land Use

A major impact would occur if any action is inconsistent with adopted land use plans or if an action would substantially alter those resources required for, supporting, or benefiting the current use. Under the No Action Alternative, land use would not change. Although the Proposed Action would result in the reclassification of project lands, the reclassifications were developed to enhance regional goals associated with good stewardship of land and water resources that would allow for continued use and development of project lands. Therefore, cumulative impacts on land use within the area surrounding Trinidad Lake, when combined with past and proposed actions in the region, are anticipated to be minimal.

4.3.2 Water Resources

Trinidad Lake was developed for flood risk management, water supply, and recreation. A major impact would occur if any action is inconsistent with adopted surface water classifications or water use plans, or if an action would substantially alter those resources required for, supporting, or benefiting the current use. The reclassifications required for the Proposed Action would allow land management and land uses to be compatible with the goals of good stewardship of water resources.

Other activities surrounding Trinidad Lake, such as the addition of future utility lines in corridors, which would require boring beneath streams in most cases to avoid impacts, have been identified as having the potential to contribute directly to the cumulative impacts on water quality; however, water quality monitoring will continue to be used to assess any changes in these conditions. The cumulative impacts on water quality from the Proposed Action at Trinidad Lake are anticipated to be negligible when combined with past and proposed actions in the area.

4.3.3 Climate

The implementation of the revised land use classifications in the 2023 Master Plan, when combined with other existing and proposed projects in the region, would not result in major cumulative impacts on the climate.

4.3.4 Climate Change and GHG

Under the Proposed Action, current Trinidad Lake project management plans and monitoring programs would not be changed. In the event that GHG emission issues become significant enough to impact the current operations at Trinidad Lake, the 2023 Master Plan and all associated documents would be reviewed and revised as necessary. Therefore, implementation of the 2023 Master Plan, when combined with other existing and proposed projects in the region, would not result in major cumulative

impacts on climate change and GHG emissions.

4.3.5 Air Quality

For the area surrounding Trinidad Lake, activities that could add to air emissions are likely few and minor in nature. Vehicle traffic along park and area roadways and routine daily activities in nearby communities contribute to current and future emission sources. Minor improvements to the communities in the Trinidad Lake area, such as construction of new business buildings, could also contribute to minor future emissions. Implementation of the proposed Master Plan, when combined with other existing and proposed projects in the region, could result in minor adverse and beneficial cumulative impacts on air quality.

4.3.6 Topography, Geology, and Soils

A major impact would occur if the action exacerbates or promotes long-term erosion, if the soils are inappropriate for the proposed construction and would create a risk to life or property, or if there would be a substantial reduction in agricultural production or loss of Prime Farmland soils. Cumulative adverse impacts on topography, geology, and soils within the area surrounding Trinidad Lake, when combined with past and proposed actions in the region, are anticipated to be negligible on the long-term basis.

4.3.7 Natural Resources

The significance threshold for natural resources would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. Past, present, and future projects are not anticipated to impact the viability of any plant species or community, rare or sensitive habitats, or wildlife. The proposed establishment of ESA and MRML-WM areas, as well as resource objectives that favor protection and restoration of valuable natural resources, will have beneficial cumulative impacts. No identified projects would threaten the viability of natural resources. Therefore, there would be long-term beneficial impacts to natural resources resulting from the revision of the proposed Master Plan, when combined with past and proposed actions in the area.

4.3.8 Threatened and Endangered Species

The Proposed Action and No Action Alternative would not adversely impact threatened, endangered and special status species within the area, as they will be coordinated with the appropriate resource agencies. Should federally listed species change in the future (e.g., delisting of the Mexican Spotted Owl or other species or listing of new species), associated requirements will be reflected in revised land management practices in coordination with the USFWS. The USACE would continue cooperative management plans with the USFWS and the state to preserve, enhance, and protect critical wildlife habitat resources.

No reasonably foreseeable future impacts on federal and state listed species are anticipated.

The land reclassifications explained in detail in section 3.8.3 will allow for further protection of state and federal listed threatened, endangered species. The reclassifications will also allow future land management practices that would maintain and enhance habitats for these species. Therefore, there would be minor long-term beneficial impacts on threatened and endangered species resulting from the revision of the Trinidad Lake 1975 Master Plan when combined with past and proposed actions in the area.

4.3.9 Invasive Species

Invasive species control has and will continue to be conducted on various areas across the project lands. Implementing Best Management Practices (BMP) will help reduce the introduction and distribution of invasive species, ensuring that proposed actions in the region will not contribute to the overall cumulative impacts related to invasive species. The land reclassifications required to revise the 1975 Master Plan are compatible with Trinidad Lake invasive species management practices. Therefore, there would be minor long-term beneficial impacts on reducing and preventing invasive species within the area surrounding Trinidad Lake.

4.3.10 Cultural, Historical, and Archaeological Resources

The Proposed Action would not affect cultural resources or historic properties. Therefore, this action, when combined with other existing and proposed projects in the region, would not result in major cumulative impacts on cultural resources or historic properties.

4.3.11 Socioeconomics and Environmental Justice

The Proposed Action would not result in the displacement of persons (minority, low-income, children, or otherwise) or decrease numbers of people recreating at Trinidad Lake as a result of implementing the revised land classifications. The creation of jobs, increase of visitor spending, and relative decrease of usage fees results in a positive impact to the local economy. Therefore, the effects of the Proposed Action on environmental justice and the protection of children, when combined with other ongoing and proposed projects in the Trinidad Lake area, are anticipated to have negligible long-term beneficial impacts.

4.3.12 Recreation

Trinidad Lake is beneficial to the local visitors and also offers a variety of free recreation opportunities. Some of the popular recreation activities at Trinidad Lake are, on a national basis, either static or declining in participation. For example, developed camping activity, power boating, hunting, and fishing have experienced small to moderate declines in recent years. In contrast to these declines, significant increases in hiking, walking, sightseeing, wildlife viewing and canoeing/kayaking have occurred in recent years. Even though the amount of acreage available for HDR would decrease

with implementation of the 2023 Master Plan, these land reclassifications reflect changes in land management and land uses that have occurred since 1975 at Trinidad Lake. The lands that remain in the HDR classification include undeveloped acreage that could be used for future outdoor recreation development. The conversion of these lands would have no adverse effect on current or projected public use. Therefore, the effects of the Proposed Action, when combined with other existing and proposed projects in the region, would result in minor long-term beneficial impacts on the area recreation.

4.3.13 Aesthetic Resources

Trinidad Lake proper and surrounding federal lands offer public, open space values and scenic water vistas. Natural Resources Management Objectives for the lake will continue to minimize activities which disturb the scenic beauty and aesthetics of the lake. Therefore, the Proposed Action would result in minor long-term beneficial impacts to the aesthetic resources of Trinidad Lake.

4.3.14 Hazardous Materials and Solid Waste

No hazardous material or solid waste concerns would be expected with implementation of the 2023 Master Plan; therefore, when combined with other ongoing and proposed projects in Trinidad Lake, there would be no major long-term adverse impacts on hazardous materials and solid waste.

4.3.15 Health and Safety

No health or safety risks would be created by the Proposed Action. The effects of implementing the 2023 Master Plan, when combined with other ongoing and proposed projects in the Trinidad Lake area, would result in no major long-term adverse impacts on health and safety for the area.

SECTION 5: COMPLIANCE WITH ENVIRONMENTAL LAWS

This EA has been prepared to satisfy the requirements of all applicable environmental laws and regulations, and has been prepared in accordance with the CEQ's implementing regulations for NEPA, 40 CFR Parts 1500 – 1508, and the USACE ER 200-2-2, *Environmental Quality: Procedures for Implementing NEPA*. The revision of the 2023 Master Plan is consistent with the USACE's Environmental Operating Principles. The following is a list of applicable environmental laws and regulations that were considered in the planning of this project and the status of compliance with each:

Fish and Wildlife Coordination Act, as amended: The USACE initiated public involvement and agency scoping activities to solicit input on the 2023 Master Plan revision process, as well as identify reclassification proposals, and identify significant issues related to the Proposed Action. Information provided by USFWS and state organizations on fish and wildlife resources has been utilized in the development of the 2023 Master Plan.

Endangered Species Act of 1973, as amended: Current lists of threatened and endangered species were compiled for the revision of the 2023 Master Plan. There would be no adverse long-term impacts on threatened or endangered species resulting from the revision of the 2023 Master Plan. However, minor long-term beneficial impacts, such as habitat protection, could occur as a result of the revision of the 2023 Master Plan.

Executive Order 13186 (Migratory Bird Habitat Protection): Sections 3a and 3e of EO 13186 directs federal agencies to evaluate the impacts of their actions on migratory birds, with emphasis on species of concern, and inform the USFWS of potential negative impacts on migratory birds. The 2023 Master Plan revision will not result in adverse impacts on migratory birds or their habitat. Beneficial impacts could occur through protection of habitat as a result of the 2023 Master Plan revision.

Migratory Bird Treaty Act: The Migratory Bird Treaty Act of 1918 extends federal protection to migratory bird species. The nonregulated "take" of migratory birds is prohibited under this Act in a manner similar to the prohibition of "take" of threatened and endangered species under the Endangered Species Act. The timing of resource management activities would be coordinated to avoid impacts on migratory and nesting birds.

Clean Water Act (CWA), as amended: The Proposed Action is in compliance with all state and federal CWA regulations and requirements, and water quality is regularly monitored by the USACE and New Mexico Environment Department Water Quality Control. A state water quality certification pursuant to Section 401 of the CWA is not required for the 2023 Master Plan revision. There will be no change in management of the reservoir that would impact water quality.

National Historic Preservation Act (NHPA) of 1966, as amended: Compliance with the NHPA of 1966, as amended, requires identification of all properties in the

project area listed in, or eligible for listing in, the NRHP. All previous surveys and site salvages were coordinated with the Colorado State Historic Preservation Officer. Known sites are mapped and avoided by maintenance activities. Areas that have not undergone cultural resources surveys, need updated surveys, or evaluations will need surveys prior to any ground disturbance or other potentially impacting activities.

Clean Air Act, as amended: The US EPA established nationwide air quality standards to protect public health and welfare. Existing operation and management of the reservoir is compliant with the Clean Air Act and will not change with the 2023 Master Plan revision.

Farmland Protection Policy Act (FPPA): The FPPA's purpose is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Prime Farmland is present within and adjacent to Trinidad Lake. The 2023 Master Plan would not impact Prime Farmland present on Trinidad Lake.

Executive Order 11990, Protection of Wetlands: EO 11990 requires federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in executing federal projects. The 2023 Master Plan complies with EO 11990.

Executive Order 11988, Floodplain Management: This EO directs federal agencies to evaluate the potential impacts of proposed actions in floodplains. The operation and management of the existing project complies with EO 11988.

CEQ Memorandum dated August 11, 1980, Prime or Unique Farmlands: Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. The Proposed Action would not impact Prime Farmland present on Trinidad Lake project lands.

Executive Order 12898 (Environmental Justice): This EO directs federal agencies to achieve environmental justice to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review. Agencies are required to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The revision of the 2023 Master Plan will not result in a disproportionate adverse impact on minority or low-income population groups.

SECTION 6: IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

NEPA requires that federal agencies identify “any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented” (42 U.S.C. § 4332). An irreversible commitment of resources occurs when the primary or secondary impacts of an action result in the loss of future options for a resource. Usually, this is when the action affects the use of a nonrenewable resource or it affects a renewable resource that takes a long time to renew. The impacts of reclassification of land would not be considered an irreversible commitment because subsequent Master Plan revisions could result in some lands being reclassified to a prior, similar land classification. An irretrievable commitment of resources is typically associated with the loss of productivity or use of a natural resource (e.g., loss of production or harvest). No irreversible or irretrievable impacts on federally protected species or their habitat is anticipated from implementing revisions to the Trinidad Lake 1975 Master Plan.

SECTION 7: PUBLIC AND AGENCY COORDINATION

In accordance with 40 CFR §§ 1501.7, 1503, and 1506.6, the USACE initiated public involvement and agency scoping activities to solicit input on the 1975 Master Plan revision process, as well as identify reclassification proposals, and identify significant issues related to the Proposed Action. The USACE began its public involvement process with a public scoping meeting to provide an avenue for public and agency stakeholders to ask questions and provide comments. The public scoping meeting was held on August 18, 2022 in the Pioneer Room of the Sullivan Center, Trinidad State College. The 30 day comment period was open from August 18, 2022 and closed September 17, 2022. Please refer to Section 7 of the 2023 Master Plan for a summary of comments received during the public scoping process.

A second public meeting will be held June 15, 2023 at the Pioneer Room. This meeting will introduce the public to the draft Master Plan and EA and will begin the 30-day public review period of the Master Plan, EA and draft Finding of No Significant Impact (FONSI). As with the first meeting, USACE, Albuquerque District, placed advertisements on the USACE webpage, and various social media sites sponsored by adjacent cities. In addition, news releases will be sent to local newspapers.

Comments received during the initial scoping period and on the draft Master Plan and EA will be incorporated in the documents, as appropriate, and will be located in Chapter 7 of the proposed Master Plan.

Attachment A to this EA includes the ads published in the local newspaper, the agency coordination letters, and the distribution list for the coordination letters published as of the time of this draft publication. The draft EA has been coordinated with agencies having legislative and administrative responsibilities for environmental protection.

SECTION 8: REFERENCES

Council on Environmental Quality (CEQ). 2005. Executive Office of the President. *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*.

Environmental Protection Agency (EPA) (2023A) Climate and Economic Justice Screening Tool. Explore the Map. Retrieved from <https://screeningtool.geoplatform.gov/en/>

EPA (2023B) Climate and Economic Justice Screening Tool. Methodology. Retrieved from <https://screeningtool.geoplatform.gov/en/methodology>

USFWS. 2023 C. IPaC for Information and Planning Conservation, USFWS Trust Resources. Retrieved from: <https://ecos.fws.gov/ipac/>

SECTION 9: ACRONYMS/ABBREVIATIONS

%	Percent
°	Degrees
BMP	Best Management Practice
CAP	Climate Action Plan
CCC	Civilian Conservation Corps
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	CO ₂ -equivalent
CPW	Colorado Parks and Wildlife
CWA	Clean Water Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EP	Engineer Pamphlet
ER	Engineer Regulation
ESA	Environmentally Sensitive Area
F	Fahrenheit
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
HDR	High Density Recreation
HPMP	Historic Properties Management Plan
IFR	Inactive/Future Recreation
IPaC	Information Planning and Consultation
LEED	Leadership in Energy & Environmental Design
MRML-IFR	Future/Inactive Recreation
MRML	Multiple Resource Management Lands
MRML-LDR	Low Density Recreation
MRML-WM	Wildlife Management
MRML-VM	Vegetative Management
msl	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO	Nitrogen Oxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
PA	Programmatic Agreement
PO	Project Operations
REC	Recreational Areas
ROD	Record of Decision
RPEC	Regional Planning and Environmental Center

SGCN	Species of Greatest Conservation Need
SO ₂	Sulfur Dioxide
SWQB	Surface Water Quality Board
THPO	Tribal Historic Preservation Officer
U.S.	United States
U.S.C.	U.S. Code
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WM	Wildlife Management
VM	Vegetative Management

SECTION 10: LIST OF PREPARERS

Bailee Clemmons – Biologist, Regional Planning and Environmental Center, 2 years of USACE experience.

Attachment A: NEPA Coordination and Public Scoping



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ALBUQUERQUE DISTRICT
4101 JEFFERSON PLAZA, NE, ALBUQUERQUE, NM 87109

July 26, 2022

Public Notice

Trinidad Lake Master Plan Revision

The Albuquerque District, U.S. Army Corps of Engineers (USACE), is revising the Trinidad Lake Master Plan (MP). The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. It defines "how" it will manage the resources for public use and resource conservation. The current MP, last approved in 1975, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy.

Revision of the MP will not detail the technical or operational aspects of the lake related to flood risk management or the water conservation missions of the project. The MP study area will include Trinidad Lake proper and all adjacent recreational and natural resources in USACE fee-owned property.

An open house will be held from 6:00 pm to 8:00 pm on August 18, 2022, in the Pioneer Room of the Sullivan Center, Trinidad State College - 600 Prospect, Trinidad, CO 81082. The open house will provide attendees with information regarding the revision content and process and a general schedule. Attendees can view current land use classification maps and ask USACE staff questions.

Key topics to be discussed in the revised MP include revised land use classifications, new natural and recreational resource management objectives, recreation facility needs, and special issues such as invasive species management and threatened and endangered species habitat. A 30-day public comment period will begin August 18, 2022, and end September 17, 2022. The public can send comments, suggestions, and concerns during this time. Public participation is critical to the successful revision of the MP. Information provided at the open house, including the existing MP, may be viewed on the Albuquerque District website at the following link beginning August 18, 2022:

<https://www.spa.usace.army.mil/Missions/Civil-Works/Recreation/Trinidad-Lake/Master-Plan/>

Comments can be submitted in writing at the scheduled open house, mailed to Kim Falen, Trinidad Lake Manager, 10950 County Rd 18.3 Trinidad, CO 81082-8904, or via email to: TRINIDAD@USACE.ARMY.MIL.

Sincerely,

A handwritten signature in cursive script, reading "Jeffery F. Pinsky".

Jeffery F. Pinsky
Chief, Environmental Branch
Regional Planning and Environmental Center



News Releases by Month

- [April 2023 \(3\)](#)
- [March 2023 \(2\)](#)
- [December 2022 \(2\)](#)
- [November 2022 \(2\)](#)
- [September 2022 \(3\)](#)
- [August 2022 \(2\)](#)
- [July 2022 \(2\)](#)
- [June 2022 \(3\)](#)
- [May 2022 \(2\)](#)
- [April 2022 \(1\)](#)
- [January 2022 \(1\)](#)
- [December 2021 \(2\)](#)
- [November 2021 \(1\)](#)
- [October 2021 \(2\)](#)
- [September 2021 \(2\)](#)
- [August 2021 \(1\)](#)
- [May 2021 \(1\)](#)
- [December 2020 \(1\)](#)
- [October 2020 \(1\)](#)
- [September 2020 \(2\)](#)
- [August 2020 \(1\)](#)
- [July 2020 \(1\)](#)
- [June 2020 \(1\)](#)
- [May 2020 \(4\)](#)
- [March 2020 \(5\)](#)
- [January 2020 \(1\)](#)
- [December 2019 \(1\)](#)
- [November 2019 \(1\)](#)
- [September 2019 \(2\)](#)
- [August 2019 \(4\)](#)
- [July 2019 \(2\)](#)
- [June 2019 \(1\)](#)
- [May 2019 \(5\)](#)
- [April 2019 \(1\)](#)
- [March 2019 \(2\)](#)
- [December 2018 \(1\)](#)
- [November 2018 \(2\)](#)
- [September 2018 \(1\)](#)
- [May 2018 \(1\)](#)
- [April 2018 \(3\)](#)
- [March 2018 \(1\)](#)
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- [September 2017 \(1\)](#)
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- [May 2017 \(1\)](#)
- [April 2017 \(2\)](#)
- [March 2017 \(3\)](#)
- [December 2016 \(1\)](#)
- [October 2016 \(1\)](#)
- [September 2016 \(3\)](#)
- [June 2016 \(2\)](#)
- [May 2016 \(1\)](#)
- [December 2015 \(3\)](#)
- [November 2015 \(1\)](#)
- [October 2015 \(1\)](#)
- [September 2015 \(2\)](#)
- [July 2015 \(1\)](#)
- [May 2015 \(1\)](#)

U.S. Army Corps of Engineers to host a public meeting for the Trinidad Lake Master Plan revision

USACE-ALBUQUERQUE DISTRICT PUBLIC AFFAIRS

Published Aug. 2, 2022

[PRINT](#) | [E-MAIL](#)

ALBUQUERQUE, N.M. – The Albuquerque District, U.S. Army Corps of Engineers (USACE), is revising the Trinidad Lake Master Plan (MP). The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. It defines "how" it will manage the resources for public use and resource conservation. The current MP, last approved in 1975, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy.

A public meeting will be held from 6:00 pm to 8:00 pm on August 18, 2022, in the Pioneer Room of the Sullivan Center, Trinidad State College - 600 Prospect, Trinidad, CO 81082.

The public meeting will provide attendees with information regarding the revision content and process and a general schedule. Attendees can view current land use classification maps and ask USACE staff questions.

Key topics to be discussed in the revised MP include revised land use classifications; new natural and recreational resource management objectives; recreation facility needs; and special issues such as invasive species management and threatened and endangered species habitat.

A 30-day public comment period will begin August 18, 2022, and end September 17, 2022. The public can send comments, suggestions, and concerns during this time. Public participation is critical to the successful revision of the MP. Information provided at the open house, including the existing MP, may be viewed on the Albuquerque District website at the following link beginning August 18, 2022: <https://www.spa.usace.army.mil/Missions/Civil-Works/Recreation/Trinidad-Lake/Master-Plan>.

Comments can be submitted in writing at the scheduled open house; mailed to Kim Falen, Trinidad Lake Manager, 10950 County Rd 18.3 Trinidad, CO 81082-8904; or sent via email to: Trinidad@usace.army.mil

About the Albuquerque District: The Albuquerque District covers all of New Mexico, about a third of Colorado, and one-fifth of Texas. Visit the Albuquerque District website at: <http://www.spa.usace.army.mil> and Facebook at: <https://www.facebook.com/albuquerqueusace>. Follow Trinidad Lake on Facebook at: <https://www.facebook.com/TrinidadLakeUSACE>

-30-

Related Site: [Trinidad Lake Master Plan revision website](#)

Related Link: [Follow Trinidad Lake on Facebook!](#)

Related Link: [Follow the Albuquerque District on Facebook!](#)

Contact

Kim Falen
719-846-9200
Trinidad@usace.army.mil

Release no. 22-010

[Trinidad Lake](#) [Trinidad Lake Master Plan](#) [Public Meeting](#)

[Skip to main content](#) (Press Enter).



THURSDAY, AUGUST 18, 2022 AT 6 PM – 8 PM

Trinidad Lake Master Plan

Revision Public Meeting

@Trinidad State College • Trinidad, CO

The U.S. Army Corps of Engineers is in the process of revising the Trinidad Lake Master Plan (MP) and will be hosting a public meeting to kick-off the effort and begin receiving comments and feedback.

The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. It defines "how" it will manage the resources for public use and resource conservation. The current MP, last approved in 1975, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy.

A public meeting will be held from 6:00 pm to 8:00 pm on August 18, 2022, in the Pioneer Room of the Sullivan Center, Trinidad State College - 600 Prospect, Trinidad, CO 81062.

The public meeting will provide attendees with information regarding the revision content and process and a general schedule. Attendees can view current land use classification maps and ask USACE staff questions.

Key topics to be discussed in the revised MP include revised land use classifications; new natural and recreational resource management objectives; recreation facility needs; and special issues such as invasive species management and threatened and endangered species habitat.

A 30-day public comment period will begin August 18, 2022, and end September 17, 2022. The public can send comments, suggestions, and concerns during this time. Public participation is critical to the successful revision of the MP. Information provided at the open house, including the existing MP, may be viewed on the Albuquerque District website at the following link beginning August 18, 2022: <https://www.spa.usace.army.mil/.../Trinidad-Lake/Master-Plan>

Comments can be submitted in writing at the scheduled open house; mailed to Kim Falen, Trinidad Lake Manager, 10950 County Rd 18.3 Trinidad, CO 81062-8904; or sent via email to: Trinidad@usace.army.mil



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Trinidad Lake Master Plan Revision

Comment Form Instructions

30 Day Comment Period

August 18, 2022 through September 17, 2022

The U.S. Army Corps of Engineers is in the process of revising the Trinidad Lake Master Plan. The master plan revision will guide the land and recreational management of the federally owned property that make up the flood storage area for the next 25 years. Management activities include protecting natural and cultural resources, providing public land and water recreation, protecting the public, and ensuring reservoir and dam operations. Pertinent information and a copy of the current land use map can be found on the USACE website below.

To add your comments, ideas, or concerns about the future land and recreational management for Trinidad Lake, please submit comments using any of the following methods by September 17, 2022:

- ***Fill out and return the comment form available below or at:***
 - **www.spa.usace.army.mil/Missions/Civil-Works/Recreation/Trinidad-Lake/Master-Plan/**
- ***Provide comments in an email message or use comment form and send to:***
 - **TRINIDAD@USACE.ARMY.MIL**
- ***Provide comments in a letter of use the comment form and mail to:***
 - **U.S. Army Corps of Engineers
Kim Falen, Trinidad Lake Operations Project Manager
10950 County Rd 18.3, Trinidad, CO 81082-8904**

Thank you for your participation in helping to develop the Master Plan for Trinidad Lake. A QR code is provided below for your convenience. Open the camera app on your phone and focus on the QR code. A link to the Trinidad Lake Master Plan page will appear. Click on the link to be taken directly to the page for more information.





Comment Form

Comments Due By September 17, 2022

Your input into the master plan revision and related environmental concerns under the National Environmental Policy Act (NEPA) is key to developing a successful master plan for the lake project. Please write your questions, comments, or suggestions in the space provided here and mail or e-mail them to the address below no later than the date of this form. Thank you for your participation!

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name: _____ Affiliation: _____

Address: _____ City: _____ State: _____ Zip Code: _____

Phone: _____ Email: _____

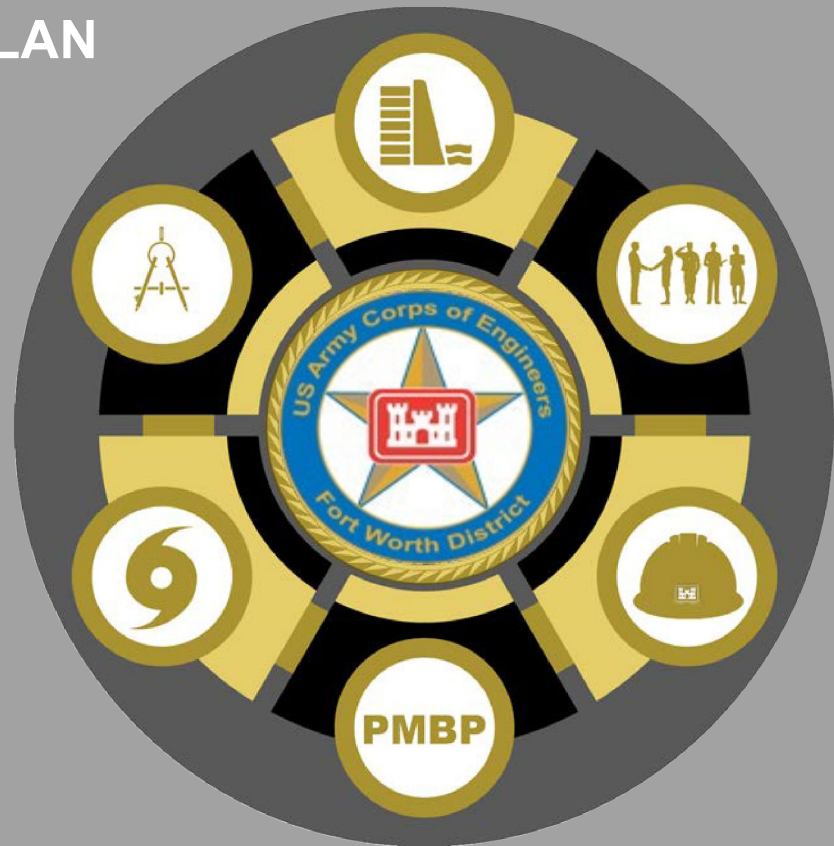
Kim Falen, Trinidad Lake Operations Project Manager
10950 County Rd 18.3, Trinidad, CO 81082-8904
TRINIDAD@USACE.ARMY.MIL

<https://www.spa.usace.army.mil/Missions/Civil-Works/Recreation/Trinidad-Lake/Master-Plan>
Or by scanning the QR code.

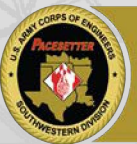


REVISING THE 1975 TRINIDAD LAKE MASTER PLAN

Public Workshop
18 August 2022
Trinidad, CO



U.S. Army Corps of Engineers, Albuquerque District



MISSION / PEOPLE / TEAMWORK



US Army Corps
of Engineers



WHAT IS A MASTER PLAN?

- The purpose of a master plan is to establish guidelines for comprehensive management and development of all recreational, natural and cultural resources
- Main focus is stewardship of natural and cultural resources and provision of quality outdoor recreation facilities and opportunities
- Proposed effective life of a Master Plan is 25 years
- Recreational use of the water surface is addressed



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ADDITIONAL KEY POINTS

Key sections of the Master Plan Revision include

- Resource management objectives
- Revised land use classifications
- Conceptual management plan for each land classification

Potential outcomes could be

- Designation of lands for utility corridors, environmentally sensitive areas...

Protection of environmentally sensitive areas is given priority



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WHAT MASTER PLANS ARE NOT

Master Plans **do not** address in detail the technical aspects of:

- Regional water quality
- Water management for flood risk management
- Water supply or water level management
- Shoreline management (Including boat docks, mowing, or other permits)



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WHAT ABOUT DROUGHT/FLOOD?

- Master Plans cannot change how water in the lake is managed, this is addressed in a separate Water Control Plan
- Natural resources and recreation management must be implemented within the constraints of the primary missions of flood risk management and water supply



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Why Revise MASTER PLAN?

- Revision is needed to incorporate any changes in Public Law
- Current Master Plan is dated August 1975 and has exceeded its useful life. The way the Lake is managed today is different from the vision set forth in the 1975 plan
- Need to re-examine Land Classifications
- The Master Plan must be revised to address current and projected future growth in the region



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What Revisions Can You Propose?

- Re-examine the classification of all project lands
- Re-examine the classification of all project water surface
- Resource Management Objectives
- Recreation Management Objectives



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NATIONAL ENVIRONMENTAL POLICY ACT

- The MP Revision process includes compliance with the National Environmental Policy Act (NEPA) of 1969.
- Purpose of NEPA is to:
 - Ensure federal agencies give proper consideration to the environment prior to undertaking a federal action.
 - Involve the Public (scoping) in the decision-making process.
 - Document the process by which agencies make informed decisions.
- NEPA Scoping Process:
 - Opportunity for Public comments and questions on the potential impacts of proposed federal actions.
 - Includes comments by other federal, State, and local governments, and American Indian Tribal Nations.



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NEPA Includes:

- Public exchange of information related to problems to be solved, issues to be addressed, and potential alternatives.
- Identification and evaluation of a broad range of alternatives.
- Identification and quantification of potential impacts.
- Screening of non-relevant issues from analysis.
- Documentation of analysis and coordination through preparation of NEPA documents, such as an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).
- Federal, State, and Public review of NEPA documents.



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What Types of Comments Can You Submit under NEPA?

- NEPA requests your input on the proposed revision of the Trinidad Lake Master Plan and the potential environmental impacts of that action.
- Broadly, covers any aspect of the natural and human environment.
- Some examples of comment categories might include:
 - Recreation availability and access;
 - Fish & wildlife habitat;
 - Public access to federal land;
 - Economic impacts;
 - Cultural resources; or
 - Water and air quality.



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NEPA RESOURCES

Available on NEPAnet: <http://www.NEPA.gov>

NEPAnet Includes:

- A Citizen's Guide to NEPA – Having Your Voice Heard
- Council on Environmental Quality Regulations for Implementing NEPA (40 CFR Parts 1500-1508)



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THE MASTER PLAN REVISION PROCESS



Where we are today



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How can you participate?

Review the below documents at website:

www.spa.usace.army.mil/Missions/Civil-Works/Recreation/Trinidad-Lake/Master-Plan/

- Public Meeting PowerPoint
- Existing Trinidad Lake Master Plan
- Trinidad Lake Master Plan Update Comment Instructions
- Trinidad Lake Master Plan Comment Form
- USACE Master Planning Policies and Procedures

Submit a comment with your input on the proposed MP revision.



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Trinidad Lake Master Plan Revision Comments

SUBMIT YOUR COMMENTS:

- (1) Using comment forms available at this Public Meeting
- (2) You may download the comment form provided on the website, fill it out electronically, and email it to the Corps using the submit button on the comment form.
- (3) By mail: Kim Falen, Trinidad Lake Operations Project Manager
10950 County Rd 18.3, Trinidad, CO 81082-8904
- (4) By email: TRINIDAD@USACE.ARMY.MIL



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APPENDIX C - WILDLIFE DOCUMENTS



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
Phone: (303) 236-4773 Fax: (303) 236-4005



In Reply Refer To:
Project Code: 2023-0062433
Project Name: Trinidad Lake Master Plan

March 30, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)).

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Colorado Ecological Services Field Office

Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
(303) 236-4773

PROJECT SUMMARY

Project Code: 2023-0062433

Project Name: Trinidad Lake Master Plan

Project Type: Management Plans Land Management/Restoration

Project Description: Environmental assessment preparation for the Trinidad Lake Master Plan.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.135797,-104.5747078754143,14z>



Counties: Las Animas County, Colorado

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
<p>Gray Wolf <i>Canis lupus</i></p> <p>Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.</p> <p>There is final critical habitat for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ Lone, dispersing gray wolves may be present throughout the state of Colorado. If your activity includes a predator management program, please consider this species in your environmental review. <p>Species profile: https://ecos.fws.gov/ecp/species/4488</p>	Endangered
<p>New Mexico Meadow Jumping Mouse <i>Zapus hudsonius luteus</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/7965</p>	Endangered

BIRDS

NAME	STATUS
<p>Mexican Spotted Owl <i>Strix occidentalis lucida</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/8196</p>	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

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Chapter 2: Species of Greatest Conservation Need

This chapter presents updated information on wildlife species that are in need of conservation attention in Colorado, with a focus on native species. Colorado's first SWAP, completed in 2006, identified 210 Species of Greatest Conservation Need (SGCN). Those species were grouped into Tier 1 and Tier 2 categories, reflecting a relative degree of conservation priority. Conservation attention is still warranted for the species on the original SGCN list. However, the utility of such a long Tier 1 species list for prioritizing conservation work over the intervening years has been somewhat confounding. Thus, a primary focus of the SGCN component in this SWAP revision has been to improve the SWAP's usefulness for conservation prioritization, while continuing to recognize the broader interests and capacity of Colorado's conservation community overall. To that end, we have re-defined how we are characterizing Tier 1 and Tier 2 SGCN, and modified the criteria used to determine Tier 1 and Tier 2 status.

Also, in the interest of improving the SWAP's applicability across Colorado's conservation community, we have added a rare plant component to the plan, and retained and expanded the insect component of the SGCN list. Though CPW does not have statutory authority over plant and insect species, we recognize the crucial role these taxa play in the ecosystems and wildlife communities of the State. SWAP elements for plants and non-mollusk invertebrates are presented in Appendices A and B, respectively.

Revised Interpretation of Tier 1 and Tier 2

Although the 2015 revision of Colorado's SWAP retains the original two-tier SGCN structure, **we have re-interpreted the Tier 1 list to represent the species which are truly of highest conservation priority in the state**, and to which CPW will likely focus resources over the life of this plan. Though the agency will certainly maintain flexibility in responding to evolving conservation needs and scientific knowledge, our best current estimate of how our work will probably be focused over the coming decade is reflected in the new Tier 1 list of 55 species. All other previously Tier 1 SGCN have been moved to the Tier 2 list, with one exception. Recent genetic studies indicate that the subspecies designation for northern pocket gopher (*Thomomys talpoides macrotis*) is not valid. Thus, this subspecies has been removed from the SGCN list. Tier 2 species remain important in light of forestalling population trends or habitat conditions that may lead to a threatened or endangered listing status, but the urgency of such action has been judged to be less. When planning future conservation work, these tier rankings should be considered along with other important factors, including potential funding and partnership

opportunities, and responsiveness to “one-time-only” opportunities. It is our hope and expectation that our conservation partners and stakeholders will work together toward conservation of all SGCN, including those on the Tier 2 list. As an agency, we remain committed to improving the status of all SGCN, and welcome collaborative efforts to do so.

Revised SGCN Criteria

For this iteration of our SWAP, we have expanded the criteria that were used to develop the original SGCN list³, which were primarily focused on species' conservation status. Those criteria were retained and augmented by further consideration of the species' role in Colorado wildlife communities, as well as our ability to make a measurable contribution to conservation of species populations, according to the criteria listed in Table 2. In distinguishing Tier 1 and Tier 2 species in the original SWAP, we developed an additional set of sub-criteria that placed more emphasis on economic considerations⁴. Due to the revised interpretation of Tier 1 status, some of these criteria were deemed to be of less importance in the revised SWAP. The remaining criteria have been absorbed into the updated criteria in Table 2.

³ Listed as federal candidate, threatened or endangered species under the ESA; Classified as state endangered or threatened species, or species of special concern; Global ranking scores of G1, G2 or G3 by the Colorado Natural Heritage Program; Identified as conservation priorities through a range-wide status assessment or assessment of large taxonomic divisions; Assigned state ranking scores of S1 or S2 AND a global ranking score of G4 by the Colorado Natural Heritage Program. Species were removed from the list if they: occur peripherally in Colorado but are common elsewhere AND for which management actions in Colorado are likely to have no population-level effect; are very common but were placed on lists due to economic considerations (e.g., Mallard).

⁴ Knowledge of management techniques needed for recovery; Impact on federal recovery; Cost of recovery or management action implementation; Direct cost of recovery action to others; Public appeal or interest in the species; Economic impacts of listing (cost incurred by listing); Importance to state biological diversity; Multiple species benefits from management of target species.

The revised Tier 2 SGCN list of vertebrates and mollusks contains 104 species, including 8 amphibians, 48 birds, 2 fish, 23 mammals, 14 reptiles, and 9 mollusks. Of the Tier 2 species, 10 vertebrates and one mollusk were not identified as SGCN in 2006. The pygmy rabbit was not a SGCN in 2006 because at that time the species had not been reported in Colorado. Recent evidence suggests that this species may be present in northwestern Colorado. The following species were not SGCN in 2006, but have been added to the 2015 Tier 2 list due to designation as a Sensitive Species by the Bureau of Land Management and/or the U.S. Forest Service: Great Basin spadefoot, black tern, grasshopper sparrow, Rocky Mountain capshell, American marten, big free-tailed bat, hoary bat, pygmy shrew, desert spiny lizard, and milksnake. Thirty bird species have been removed from the SGCN list. This change is not a result of change in species status, but rather is due to the revisions of the criteria used to define SGCN.

There are four species on the SGCN list that no longer occur as wild populations in Colorado: bison, gray wolf, grizzly bear, and wolverine. These species were historically part of Colorado's native animal community, and would meet the criteria for SGCN if they were to re-colonize or be re-introduced to the state during the time period covered by this plan. There are no plans to re-introduce wolves or grizzly bears to the state, but it is possible that wolverine and/or genetically pure, wild bison could be re-introduced if social and political concerns can be satisfactorily addressed and such efforts are biologically justified.

Status and Trend

The status of each vertebrate and mollusk SGCN is summarized in Table 3. The lists generated by the U.S. Fish and Wildlife Service, U.S. Forest Service, Bureau of Land Management, State of Colorado, Colorado Natural Heritage Program, and NatureServe all use species status in some form to develop their respective lists. We did not develop a new metric that specifically evaluated species status within Colorado, but rather used the lists generated by these other organizations to inform our evaluation of species status.

A species' population trend is also used by other organizations in the development of their lists, but we do consider it as a separate factor here (Table 3, Declining Trend column). Both data from studies as well as best professional judgments were used to determine declining trend. Data were found in recovery plans, status assessments, and both published and unpublished reports. For landbirds we relied heavily upon the Partners in Flight Species Assessment Database (PIF Science Committee 2012) to evaluate trends on a continental scale.

Table 2. Criteria used to revise the list of Tier 1 Species of Greatest Conservation Need.

1) Federal and State Status
a) Listed or proposed as endangered at federal or state level
b) Listed or proposed as threatened at federal or state level
c) Other indication of special concern at federal or state level
2) Colorado's contribution to the species overall conservation (portion of overall range that occurs in Colorado)
a) The health of the population in Colorado compared to other portions of its range (better = higher)
b) Population status and level of conservation activity in surrounding states and other portions of the species range
c) Level of conservation activity in Colorado relative to its status in the state
3) Urgency of conservation action:
a) New threats to the species
b) Lack of Scientific Knowledge
c) Increases in severity of existing threats or new data that show a significant persistent decline in population status
d) Likelihood and immediacy of potential ESA listing
e) Funding or partnership opportunities that are time limited
4) Ability to Implement Effective Conservation Actions:
a) Few regulatory issues present to impede conservation success
b) Limitations in mitigating population and/or habitat threats are minimal (i.e., conservation success is highly likely)
c) Cost to implement effective conservation
d) Socio-political factors (general willingness to support conservation of the species)
5) Ecological Value of the species:
a) Species is a good indicator to the overall health of the habitat it occupies
b) Keystone species – plays a significant role in defining the habitat in which it lives
c) Umbrella species – protecting these species indirectly protects the many other species that make up the ecological community used by the species

Updated SGCN List

The 2015 SGCN list of vertebrate animals and mollusks– the groups for which CPW has statutory authority – contains 159 species (Table 3). Fifty-five species have been identified as Tier 1 SGCN, including 2 amphibians, 13 birds, 25 fish, 13 mammals, and 2 reptiles (Table 3). Of these, all were on the Tier 1 SGCN list in 2006 with the following exceptions: White-tailed ptarmigan⁵ and wolverine were previously Tier 2; plains topminnow, little brown bat, New Mexico meadow jumping mouse, and American pika were not SGCN in 2006. Conservation opportunity, Colorado's contribution to conservation, and changes in conservation status are all partially explanatory in these changes.

⁵ The 2006 SWAP listed white-tailed ptarmigan as a SGCN at the species level. This 2015 SWAP lists the subspecies Southern white-tailed ptarmigan, based on the USFWS recognition of the Colorado population of white-tailed ptarmigan as a separate subspecies.

Table 3. Vertebrate and Mollusk Species of Greatest Conservation Need.

Species are grouped by Tier and taxonomic group, and then sorted alphabetically by common name. Legend: Federal Listing: LE – listed Endangered; LT – listed Threatened; LT* - listed Threatened status applies to Distinct Population Segment only; C – Candidate; P – Petitioned; N – Not Warranted. State Listing: SE – state endangered; ST – state threatened; SC – Special Concern. Agency Sensitive: BLM – Bureau of Land Management; USFS – U.S. Forest Service; USFWS – U.S. Fish and Wildlife Service Birds of Conservation Concern for Bird Conservation Regions 16 and 18. NatureServe Global/State Status: 1 – critically imperiled; 2 – imperiled; 3 – vulnerable; 4 – apparently secure, but with cause for long-term concern; 5 – demonstrably secure; T – subspecies status; Q – taxonomic uncertainty; B – breeding; N – non-breeding; NR – not ranked; X – extirpated. Species mark with a double-asterisk (**) were added as habitat indicator species.

<i>Species</i>	<i>Common Name</i>	<i>Priority Tier</i>	<i>Federal Status</i>	<i>State Status</i>	<i>USFS Sensitive Species</i>	<i>BLM Sensitive Species</i>	<i>USFWS Birds of Conservation Concern</i>	<i>PIF US-Canada Watch List</i>	<i>CO's Contribution to Conservation</i>	<i>Urgency of Conservation Action</i>	<i>Ability to Implement Effective Conservation Actions</i>	<i>Ecological Value of the Species</i>	<i>NatureServe Global Status Rank</i>	<i>CNHP/NatureServe State Status Rank</i>	<i>Declining Trend</i>
AMPHIBIANS															
<i>Anaxyrus boreas boreas</i>	Boreal toad (Southern Rocky Mountain population)	Tier 1	P	SE	x	x			x	x		x	G4T1	S1	
<i>Lithobates pipiens</i>	Northern leopard frog	Tier 1		SC	x	x						x	G5	S3	?
BIRDS															
<i>Leucosticte australis</i>	Brown-capped rosy-finch	Tier 1					x	x				x	G4	S3B,S4N	
<i>Athene cunicularia</i>	Burrowing owl	Tier 1		ST	x	x	x					x	G4	S4B	
<i>Tympanuchus phasianellus columbianus</i>	Columbian sharp-tailed grouse	Tier 1		SC	x	x				x	x	x	G4T3	S2	
<i>Aquila chrysaetos</i>	Golden eagle	Tier 1					x			x		x	G5	S3S4B, S4N	
<i>Centrocercus urophasianus</i>	Greater sage-grouse	Tier 1	C	SC	x	x		x		x	x	x	G3G4	S4	
<i>Grus canadensis tabida</i>	Greater sandhill crane	Tier 1		SC									G5T4	S2B,S4N	x
<i>Centrocercus minimus</i>	Gunnison sage-grouse	Tier 1	LT	SC		x	x	x	x	x	x	x	G1	S1	
<i>Tympanuchus pallidicinctus</i>	Lesser prairie-chicken	Tier 1	LT	ST		x	x	x			x	x	G3	S2	

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Species	Common Name	Priority Tier	Federal Status	State Status	USFS Sensitive Species	BLM Sensitive Species	USFWS Birds of Conservation Concern	PIF US-Canada Watch List	CO's Contribution to Conservation	Urgency of Conservation Action	Ability to Implement Effective Conservation Actions	Ecological Value of the Species	NatureServe Global Status Rank	CNHP/NatureServe State Status Rank	Declining Trend
<i>Charadrius montanus</i>	Mountain plover	Tier 1		SC	x	x	x						G3	S2B	
<i>Tympanuchus phasianellus jamesii</i>	Plains sharp-tailed grouse	Tier 1		SE									G4T4	S1	
<i>Lagopus leucura altipetens</i>	Southern white-tailed ptarmigan	Tier 1	P		x							x	G5	S4	
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	Tier 1	LE	SE			x						G5T1T2	SNA	
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	Tier 1	LT*	SC	x	x	x			x			G5T3Q	S1B	
FISH															
<i>Etheostoma cragini</i>	Arkansas darter	Tier 1	C	ST		x							G3G4	S2	
<i>Catostomus discobolus</i>	Bluehead sucker	Tier 1			x	x			x	x		x	G4	S4	
<i>Gila elegans</i>	Bonytail chub	Tier 1	LE	SE					x	x			G1	SX	
<i>Hybognathus hankinsoni</i>	Brassy minnow	Tier 1		ST								x	G5	S3	
<i>Ptychocheilus lucius</i>	Colorado pikeminnow	Tier 1	LE	ST					x	x		x	G1	S1	x
<i>Oncorhynchus clarkii pleuriticus</i>	Colorado River cutthroat trout	Tier 1		SC	x	x						x	G4T3	S3	
<i>Luxilus cornutus</i>	Common shiner	Tier 1		ST									G5	S2	
<i>Catostomus latipinnis</i>	Flannelmouth sucker	Tier 1			x	x			x	x		x	G3G4	S3	
<i>Platygobio gracilis</i>	Flathead chub	Tier 1		SC	x								G5	S3	
<i>Oncorhynchus clarkii stomias</i>	Greenback cutthroat trout	Tier 1	LT	ST					x			x	G4T2T3	S2	
<i>Gila cypha</i>	Humpback chub	Tier 1	LE	ST						x			G1	S1	x
<i>Catostomus playtrhynchus</i>	Mountain sucker	Tier 1		SC	x	x							G5	S2	
<i>Phoxinus eos</i>	Northern redbelly dace	Tier 1		SE	x						x		G5	S1	
<i>Lepomis humilis</i>	Orangespotted sunfish	Tier 1									x		G5	S5	x

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<i>Etheostoma spectabile</i>	Orangethroat darter	Tier 1		SC									G5	S3	x
<i>Hybognathus placitus</i>	Plains minnow	Tier 1		SE	x							x	G4	SH	
<i>Fundulus sciadicus</i>	Plains topminnow	Tier 1			x								G4	S4	
<i>Xyrauchen texanus</i>	Razorback sucker	Tier 1	LE	SE					x	x		x	G1	S1	
<i>Gila Pandora</i>	Rio Grande chub	Tier 1		SC	x	x							G3	S1	
<i>Oncorhynchus clarkii virginalis</i>	Rio Grande cutthroat trout	Tier 1	N	SC	x	x			x			x	G4T3	S3	
<i>Catostomus plebeius</i>	Rio Grande sucker	Tier 1		SE	x	x							G3G4	S1	
<i>Gila robusta</i>	Roundtail chub	Tier 1		SC	x	x			x	x		x	G3	S2	x
<i>Phoxinus erythrogaster</i>	Southern redbelly dace	Tier 1		SE	x						x		G5	S1	
<i>Noturus flavus</i>	Stonecat	Tier 1		SC						x			G5	S1	
<i>Phenacobius mirabilis</i>	Suckermouth minnow	Tier 1		SE								x	G5	S2	
MAMMALS															
<i>Ochotona princeps</i>	American pika**	Tier 1	N										G5	S5	
<i>Mustela nigripes</i>	Black-footed ferret	Tier 1	LE	SE						x		x	G1	S1	
<i>Myotis thysanodes</i>	Fringed myotis	Tier 1			x	x						x	G4	S3	
<i>Cynomys gunnisoni</i>	Gunnison's prairie dog	Tier 1	N		x	x			x			x	G5	S5	
<i>Myotis lucifigus</i>	Little brown myotis	Tier 1	P									x	G3	S5	
<i>Lynx Canadensis</i>	Lynx	Tier 1	LT	SE								x	G5	S1	
<i>Zapus hudsonius luteus</i>	New Mexico meadow jumping mouse	Tier 1	LE		x	x			x			x	G5T2	S1	
<i>Perognathus fasciatus</i>	Olive-backed pocket mouse	Tier 1										x	G5	S3	x
<i>Zapus hudsonius preblei</i>	Prebles meadow jumping mouse	Tier 1	LT	ST					x			x	G5T2	S1	x

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<i>Euderma maculatum</i>	Spotted bat	Tier 1			x	x						x	G4	S2	
<i>Corynorhinus townsendii pallescens</i>	Townsend's big-eared bat ssp.	Tier 1		SC	x	x					x	x	G3G4T3T4	S2	
<i>Cynomys leucurus</i>	White-tailed prairie dog	Tier 1			x	x						x	G4	S4	
<i>Gulo gulo</i>	Wolverine	Tier 1	N	SE								x	G4	S1	
REPTILES															
<i>Aspidoscelis neotesselata</i>	Colorado checkered whiptail	Tier 1	N	SC					x	x		x	G2G3	S2	
<i>Sistrurus catenatus</i>	Massasauga	Tier 1	P	SC	x	x						x	G3G4	S2	
AMPHIBIANS															
<i>Acris blanchardi</i>	Blanchard's cricket frog	Tier 2		SC		x							G5	SH	
<i>Hyla arenicolor</i>	Canyon tree frog	Tier 2				x							G5	S2	
<i>Scaphiopus couchii</i>	Couch's spadefoot	Tier 2		SC									G5	S1	
<i>Spea intermontana</i>	Great Basin spadefoot	Tier 2				x							G5	S3	
<i>Gastrophryne olivacea</i>	Great Plains narrowmouth toad	Tier 2		SC									G5	S1	
<i>Anaxyrus debilis</i>	Green toad	Tier 2											G5	S2	
<i>Lithobates blairi</i>	Plains leopard frog	Tier 2		SC	x	x							G5	S3	
<i>Lithobates sylvatica</i>	Wood frog	Tier 2		SC	x								G5	S3	
BIRDS															
<i>Botaurus lentiginosus</i>	American bittern	Tier 2			x		x						G4	S3S4B	
<i>Falco peregrinus anatum</i>	American peregrine falcon	Tier 2		SC	x	x	x						G4T4	S2B	
<i>Pelecanus erythrorhynchos</i>	American white pelican	Tier 2				x							G4	S1B	
<i>Haliaeetus leucocephalus</i>	Bald eagle	Tier 2		SC	x	x	x						G5	S1B,S3N	

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Species	Common Name	Priority Tier	Federal Status	State Status	USFS Sensitive Species	BLM Sensitive Species	USFWS Birds of Conservation Concern	PIF US-Canada Watch List	CO's Contribution to Conservation	Urgency of Conservation Action	Ability to Implement Effective Conservation Actions	Ecological Value of the Species	NatureServe Global Status Rank	CNHP/NatureServe State Status Rank	Declining Trend
<i>Patagioenas fasciata</i>	Band-tailed pigeon	Tier 2											G4	S4B	x
<i>Bucephala islandica</i>	Barrow's goldeneye	Tier 2											G5	S2B	
<i>Leucosticte atrata</i>	Black rosy-finch	Tier 2					x	x					G4	S4N	
<i>Cypseloides niger</i>	Black swift	Tier 2			x	x		x	x				G4	S3B	x
<i>Chlidonias niger</i>	Black tern	Tier 2			x								G4	S2B	
<i>Dolichonyx oryzivorus</i>	Bobolink	Tier 2						x					G5	S3B	x
<i>Aegolius funereus</i>	Boreal owl	Tier 2			x								G5	S2	
<i>Spizella breweri</i>	Brewer's sparrow	Tier 2			x	x	x						G5	S4B	x
<i>Peucaea cassinii</i>	Cassin's finch	Tier 2					x						G5	S5	x
<i>Aimophila cassinii</i>	Cassin's sparrow	Tier 2			x								G5	S4B	x
<i>Calcarius ornatus</i>	Chestnut-collared longspur	Tier 2			x		x	x					G5	S1B	x
<i>Buteo regalis</i>	Ferruginous hawk	Tier 2		SC	x	x	x					x	G4	S3B,S4N	
<i>Otus flammeolus</i>	Flammulated owl	Tier 2			x		x	x					G4	S4	
<i>Setophaga graciae</i>	Grace's warbler	Tier 2					x						G5	S3B	
<i>Ammodramus savannarum</i>	Grasshopper sparrow	Tier 2			x		x						G5	S3S4B	x
<i>Vireo vicinior</i>	Gray vireo	Tier 2					x	x					G4	S2B	
<i>Tympanuchus cupido</i>	Greater prairie-chicken	Tier 2			x			x					G4	S3	x
<i>Baeolophus ridgwayi</i>	Juniper titmouse	Tier 2					x						G5	S4	x
<i>Calamospiza melanocorys</i>	Lark bunting	Tier 2					x						G5	S4	x
<i>Passerina amoena</i>	Lazuli bunting	Tier 2											G5	S5B	x
<i>Sterna antillarum</i>	Least tern	Tier 2	LE	SE									G4	S1B	
<i>Melanerpes lewis</i>	Lewis's woodpecker	Tier 2			x		x						G4	S4	x

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<i>Species</i>	<i>Common Name</i>	<i>Priority Tier</i>	<i>Federal Status</i>	<i>State Status</i>	<i>USFS Sensitive Species</i>	<i>BLM Sensitive Species</i>	<i>USFWS Birds of Conservation Concern</i>	<i>PIF US-Canada Watch List</i>	<i>CO's Contribution to Conservation</i>	<i>Urgency of Conservation Action</i>	<i>Ability to Implement Effective Conservation Actions</i>	<i>Ecological Value of the Species</i>	<i>NatureServe Global Status Rank</i>	<i>CNHP/NatureServe State Status Rank</i>	<i>Declining Trend</i>
<i>Lanius ludovicianus</i>	Loggerhead shrike	Tier 2			x								G4	S3S4B	x
<i>Numenius americanus</i>	Long-billed curlew	Tier 2		SC	x	x	x						G5	S2B	
<i>Rhynchophanes mccownii</i>	McCown's longspur	Tier 2			x		x						G4	S2B	
<i>Strix occidentalis lucida</i>	Mexican spotted owl	Tier 2	LT	ST									G3T3	S1B,SUN	
<i>Colinus virginianus</i>	Northern bobwhite	Tier 2											G5	S4	x
<i>Accipiter gentilis</i>	Northern goshawk	Tier 2			x	x							G5	S3B	
<i>Circus cyaneus</i>	Northern harrier	Tier 2			x								G5	S3B	
<i>Contopus cooperi</i>	Olive-sided flycatcher	Tier 2			x			x					G4	S3S4B	x
<i>Gymnorhinus cyanocephalus</i>	Pinyon jay	Tier 2					x	x					G5	S5	x
<i>Charadrius melodus</i>	Piping plover	Tier 2	LT	ST									G3	S1B	
<i>Falco mexicanus</i>	Prairie falcon	Tier 2					x						G5	S4B,S4N	
<i>Progne subis</i>	Purple martin	Tier 2			x								G5	S3B	
<i>Selasphorus rufus</i>	Rufous hummingbird	Tier 2						x					G5	SNA	x
<i>Amphispiza belli</i>	Sage sparrow	Tier 2			x								G5	S3B	x
<i>Asio flammeus</i>	Short-eared owl	Tier 2			x								G5	S2B	x
<i>Buteo swainsoni</i>	Swainson's hawk	Tier 2											G5	S5B	x
<i>Bartramia longicauda</i>	Upland sandpiper	Tier 2					x					x	G5	S3B	
<i>Catharus fuscescens</i>	Veery	Tier 2					x						G5	S3B	
<i>Oreothlypis virginiae</i>	Virginia's warbler	Tier 2						x					G5	S5	
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	Tier 2		SC		x	x						G3T3	S1B	
<i>Plegadis chihi</i>	White-faced ibis	Tier 2				x							G5	S2B	
<i>Grus Americana</i>	Whooping crane	Tier 2	LE	SE								x	G1	SNA	

Colorado's 2015 State Wildlife Action Plan

Species	Common Name	Priority Tier	Federal Status	State Status	USFS Sensitive Species	BLM Sensitive Species	USFWS Birds of Conservation Concern	PIF US-Canada Watch List	CO's Contribution to Conservation	Urgency of Conservation Action	Ability to Implement Effective Conservation Actions	Ecological Value of the Species	NatureServe Global Status Rank	CNHP/NatureServe State Status Rank	Declining Trend
FISH															
<i>Etheostoma exile</i>	Iowa darter	Tier 2		SC									G5	S3	
<i>Couesius plumbeus</i>	Lake chub	Tier 2		SE	x						x		G5	S1	
MAMMALS															
<i>Sciurus aberti</i>	Abert's squirrel**	Tier 2											G5	S5	
<i>Idionycteris phyllotis</i>	Allen's big-eared bat	Tier 2				x							G4	SNR	
<i>Martes Americana</i>	American marten	Tier 2			x								G4G5	S4	
<i>Nyctinomops macrotis</i>	Big free-tailed bat	Tier 2				x							G5	S1	
<i>Ovis Canadensis</i>	Bighorn sheep	Tier 2			x	x							G4	S4	
<i>Bison bison</i>	Bison	Tier 2											G4	SX	
<i>Cynomys ludovicianus</i>	Black-tailed prairie dog	Tier 2	N	SC	x	x						x	G4	S3	
<i>Thomomys bottae rubidus</i>	Botta's pocket gopher (<i>rubidus</i> ssp.)	Tier 2		SC									G5T1	S1	
<i>Conepatus leuconotus</i>	Common hog-nosed skunk	Tier 2			x								G4	S1	
<i>Sorex nanus</i>	Dwarf shrew	Tier 2											G4	S2	
<i>Canis lupus</i>	Gray wolf	Tier 2	LE	SE	x							x	G4G5	SX	
<i>Ursus arctos</i>	Grizzly bear	Tier 2		SE									G4	SX	
<i>Lasiurus cinereus</i>	Hoary bat	Tier 2			x								G5	S5B	
<i>Vulpes macrotis</i>	Kit fox	Tier 2		SE	x	x							G4	S1	x
<i>Sorex preblei</i>	Preble's shrew	Tier 2											G4	S1	
<i>Brachylagus idahoensis</i>	Pygmy rabbit	Tier 2											G4	SNR	
<i>Sorex hoyi montanus</i>	Pygmy shrew	Tier 2			x								G5T3T4	S2	

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Species	Common Name	Priority Tier	Federal Status	State Status	USFS Sensitive Species	BLM Sensitive Species	USFWS Birds of Conservation Concern	PIF US-Canada Watch List	CO's Contribution to Conservation	Urgency of Conservation Action	Ability to Implement Effective Conservation Actions	Ecological Value of the Species	NatureServe Global Status Rank	CNHP/NatureServe State Status Rank	Declining Trend
<i>Clethrionomys gapperi</i>	Red-backed vole**	Tier 2											G5	S5	
<i>Lontra Canadensis</i>	River otter	Tier 2		ST	x						x	x	G5	S3S4	
<i>Lemmys curtatus</i>	Sagebrush vole	Tier 2											G5	S1	
<i>Lepus americanus</i>	Snowshoe hare**	Tier 2											G5	S5	
<i>Vulpes velox</i>	Swift fox	Tier 2		SC	x	x						x	G3	S3	
<i>Lepus townsendii</i>	White-tailed jackrabbit	Tier 2											G5	S4	
MOLLUSKS															
<i>Ferrissia walker</i>	Cloche ancylid	Tier 2											G4G5Q	S3	
<i>Promenetus umbilicatellus</i>	Cockerell	Tier 2											G4	S3	
<i>Anodontoides ferussacianus</i>	Cylindrical papershell	Tier 2		SC									G5	S2	
<i>Ferrissia fragilis</i>	Fragil ancylid	Tier 2											G5Q	S1	
<i>Physa cupreonitens</i>	Hot springs physa	Tier 2											G5Q	S2	
<i>Uniomorus tetralasmus</i>	Pondhorn	Tier 2											G5	S1	
<i>Acroloxus coloradensis</i>	Rocky Mountain capshell	Tier 2		SC	x								G3	S1	
<i>Promenetus exacuouus</i>	Sharp sprite	Tier 2											G5	S2	
<i>Physa gyrina utahensis</i>	Utah physa	Tier 2											G5T2	S1	
REPTILES															
<i>Thamnophis cyrtopsis</i>	Black-necked gartersnake	Tier 2											G5	S2?	
<i>Lampropeltis californiae</i>	California kingsnake	Tier 2		SC		x							G5	S1	
<i>Thamnophis sirtalis</i>	Common gartersnake	Tier 2		SC									G5	S3	x
<i>Sceloporus magister</i>	Desert spiny lizard	Tier 2				x							G5	S2	
<i>Gambelia wislizenii</i>	Long-nosed leopard lizard	Tier 2		SC		x							G5	S1	

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Species	Common Name	Priority Tier	Federal Status	State Status	USFS Sensitive Species	BLM Sensitive Species	USFWS Birds of Conservation Concern	PIF US-Canada Watch List	CO's Contribution to Conservation	Urgency of Conservation Action	Ability to Implement Effective Conservation Actions	Ecological Value of the Species	NatureServe Global Status Rank	CNHP/NatureServe State Status Rank	Declining Trend
<i>Rhinocheilus lecontei</i>	Long-nosed snake	Tier 2											G5	S1?	
<i>Crotalus oreganus concolor</i>	Midget faded rattlesnake	Tier 2		SC		x							G5T4	S3?	
<i>Lampropeltis triangulum</i>	Milksnake	Tier 2				x							G5	S2?	
<i>Rena dissectus</i>	New Mexico threadsnake	Tier 2		SC									G4G5	S1	
<i>Hypsiglena chlorophaea</i>	Desert nightsnake	Tier 2											G5	S3	
<i>Phrynosoma modestum</i>	Round-tailed horned lizard	Tier 2		SC									G5	S1	
<i>Tantilla horbartsmithi</i>	Smith's black-headed snake	Tier 2											G5	S2?	
<i>Phrynosoma cornutum</i>	Texas horned lizard	Tier 2		SC									G4G5	S3	
<i>Kinosternon flavescens</i>	Yellow mud turtle	Tier 2		SC									G5	S1	

Greater Sandhill Crane	<i>Grus canadensis tabida</i>	SC
Gunnison Sage-Grouse	<i>Centrocercus minimus</i>	FT, SC
Least Tern	<i>Sterna antillarum</i>	SE
Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>	FT, ST
Long-Billed Curlew	<i>Numenius americanus</i>	SC
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FT, ST
Mountain Plover	<i>Charadrius montanus</i>	SC
Plains Sharp-Tailed Grouse	<i>Tympanuchus phasianellus jamesii</i>	SE
Piping Plover	<i>Charadrius melodus circumcinctus</i>	FT, ST
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	FE, SE
Western Snowy Plover	<i>Charadrius alexandrinus</i>	SC
Western Yellow-Billed Cuckoo	<i>Coccyzus americanus</i>	SC, FT
Whooping Crane	<i>Grus americana</i>	FE, SE
FISH		
Arkansas Darter	<i>Etheostoma cragini</i>	ST
Bonytail	<i>Gila elegans</i>	FE, SE
Brassy Minnow	<i>Hybognathus hankinsoni</i>	ST
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	FE, ST
Colorado River Cutthroat Trout	<i>Oncorhynchus clarki pleuriticus</i>	SC
Colorado Roundtail Chub	<i>Gila robusta</i>	SC
Common Shiner	<i>Luxilus cornutus</i>	ST
Flathead Chub	<i>Platygobio gracilis</i>	SC

COLORADO PARKS & WILDLIFE



Threatened and Endangered List

COMMON NAME	SCIENTIFIC NAME	STATUS*
AMPHIBIANS		
Boreal Toad	<i>Bufo boreas boreas</i>	SE
Couch's Spadefoot	<i>Scaphiopus couchii</i>	SC
Great Plains Narrowmouth Toad	<i>Gastrophryne olivacea</i>	SC
Northern Cricket Frog	<i>Acris crepitans</i>	SC
Northern Leopard Frog	<i>Rana pipiens</i>	SC
Plains Leopard Frog	<i>Rana blairi</i>	SC
Wood Frog	<i>Rana sylvatica</i>	SC
BIRDS		
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SC
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC
Burrowing Owl	<i>Athene cunicularia</i>	ST
Columbian Sharp-Tailed Grouse	<i>Tympanuchus phasianellus columbianus</i>	SC
Ferruginous Hawk	<i>Buteo regalis</i>	SC
Greater Sage Grouse	<i>Centrocercus urophasianus</i>	SC

Greenback Cutthroat Trout	<i>Oncorhynchus clarki stomias</i>	FT, ST
Humpback Chub	<i>Gila cypha</i>	FE, ST
Iowa Darter	<i>Etheostoma exile</i>	SC
Lake Chub	<i>Couesius plumbeus</i>	SE
Mountain Sucker	<i>Catostomus playtrhynchus</i>	SC
Northern Redbelly Dace	<i>Phoxinus eos</i>	SE
Plains Minnow	<i>Hybognathus placitus</i>	SE
Plains Orangethroat Darter	<i>Etheostoma spectabile</i>	SC
Rio Grande Chub	<i>Gila pandora</i>	SC
Rio Grande Cutthroat Trout	<i>Oncorhynchus clarki virginalis</i>	SC
Rio Grande Sucker	<i>Catostomus plebeius</i>	SE
Razorback Sucker	<i>Xyrauchen texanus</i>	FE, SE
Southern Redbelly Dace	<i>Phoxinus erythrogaster</i>	SE
Stonecat	<i>Noturus flavus</i>	SC
Suckermouth Minnow	<i>Phenacobius mirabilis</i>	SE
MAMMALS		
Black-Footed Ferret	<i>Mustela nigripes</i>	FE, SE
Black-Tailed Prairie Dog	<i>Cynomys ludovicianus</i>	SC
Botta's Pocket Gopher	<i>Thomomys bottae rubidus</i>	SC
Gray Wolf	<i>Canis lupus</i>	SE, FE
Grizzly Bear	<i>Ursus arctos</i>	FT, SE
Kit Fox	<i>Vulpes macrotis</i>	SE

Lynx	Lynx canadensis	FT, SE
Northern Pocket Gopher	Thomomys talpoides macrotis	SC
Preble's Meadow Jumping Mouse	Zapus hudsonius preblei	FT, ST
River Otter	Lontra canadensis	ST
Swift fox	Vulpes velox	SC
Townsend's Big-Eared Bat	Corynorhinus townsendii pallescens	SC
Wolverine	Gulo gulo	SE

REPTILES

Triploid Checkered Whiptail	Cnemidophorus neotesselatus	SC
Midget Faded Rattlesnake	Crotalus viridis concolor	SC
Longnose Leopard Lizard	Gambelia wislizenii	SC
Yellow Mud Turtle	Kinosternon flavescens	SC
Common King Snake	Lampropeltis getula	SC
Texas Blind Snake	Leptotyphlops dulcis	SC
Texas Horned Lizard	Phrynosoma cornutum	SC
Roundtail Horned Lizard	Phrynosoma modestum	SC
Massasauga	Sistrurus catenatus	SC
Common Garter Snake	Thamnophis sirtalis	SC

MOLLUSKS

Rocky Mountain Capshell	Acroloxus coloradensis	SC
Cylindrical Papershell	Anodontoides ferussacianus	SC

*Status Codes

- FE = Federally Endangered
- FT = Federally Threatened
- SE = State Endangered
- ST = State Threatened
- SC = State Special Concern (not a statutory category)

Resources

- [Species Profiles](#)

Colorado's State Wildlife Action Plan (SWAP)



The approved [State Wildlife Action Plan](#) identifies priority species & habitats that need conservation efforts in the state, & potential conservation actions that can address threats these species & habitats face.

APPENDIX D – PERTINENT LAWS

- Antiquities Act of 1906, Public Law 59-209, 34 Stat. 225, 54 U.S.C. Sections 320301-320303: The first Federal law established to protect what are now known as "cultural resources" on public lands. It provides a permit procedure for investigating "antiquities" and consists of two parts: An act for the Preservation of American Antiquities, and Uniform Rules and Regulations.
- Historic Sites Act of 1935, Public Law 74-292, 49 Stat. 666, 16 U.S.C. Sections 461-467: Declares it to be a national policy to preserve for (in contrast to protecting from) the public historic (including prehistoric) sites, buildings, and objects of national significance. This act provides both authorization and a directive for the Secretary of the Interior, through the National Park Service, to assume a position of national leadership in protecting, recovering, and interpreting national archeological historic resources. It also establishes an "Advisory Board on National Parks; Historic Sites, Buildings, and Monuments, a committee of eleven experts appointed by the Secretary to recommend policies to the Department of the Interior".
- Flood Control Act of 1938, Public Law 75-761: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. Sections 668-668d: This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or any manner, any bald eagle [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The Act defines "take" as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.
- Flood Control Act of 1944, Public Law 78-534: Section 4 of the act as last amended in 1962 by Section 207 of Public Law 87-874 authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to Federal, State or local governmental agencies.
- River and Harbor Act of 1946, Public Law 79-525: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Flood Control Act of 1954, Public Law 83-780: This act authorizes the construction, maintenance, and operation of public parks and recreational facilities in reservoir areas under the control of the Department of the Army and authorizes the Secretary of the Army to grant leases of lands in reservoir areas deemed to be in the public interest.
- Fish and Wildlife Coordination Act, Public Law 85-624: This act, as amended, sets down the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving

fish and wildlife resources and adverse effects on these resources shall be examined along with other purposes which might be served by water resources development.

- Public Law 86-717: This act provides for the protection of forest and other vegetative cover for reservoir areas under this jurisdiction of the Secretary of the Army and the Chief of Engineers.
- River and Harbor Act of 1962, Public Law 87-874: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Land and Water Conservation Fund Act of 1965, Public Law 88-578: This act established a fund from which U.S. Congress can make appropriations for outdoor recreation. This law makes entrance and user fees at reservoirs possible by deleting the words "without charge" from Section 4 of the 1944 Flood Control Act, as amended.
- Public Law 88-29: Authorized the Secretary of the Interior to inventory and classify outdoor recreation needs and resources and to prepare a comprehensive outdoor recreation plan taking into consideration the plans of the various Federal agencies, State, and other political subdivisions. It also states that the federal agencies undertaking recreational activities shall consult with the Secretary of the Interior concerning these activities and shall carry out such responsibilities in general conformance with the nationwide plan.
- Federal Water Project Recreation Act, Public Law 89-72: This act requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at Federal reservoir projects shall be borne by a non-Federal public body. A HQUSACE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.
- Water Resources Planning Act, Public Law 89-80: This act established the Water Resources Council and gives it the responsibility to encourage the development, conservation, and use of the Nation's water and related land resources on a coordinated and comprehensive basis.
- Solid Waste Disposal Act, as amended, Public Law 89-272, 42 U.S.C. Sections 6901 et seq.: This act authorized a research and development program with respect to solid-waste disposal. It proposes (1) to initiate and accelerate a national research and development program for new and improved methods of proper and economic solid-waste disposal, including studies directed toward the conservation of natural resources by reducing the amount of waste and unsalvageable materials and by recovery and utilization of potential resources in solid waste; and (2) to provide technical and financial assistance to State and local governments and interstate agencies in the planning, development, and conduct of solid-waste disposal programs.

- National Historic Preservation Act of 1966, Public Law 89-665, 54 U.S.C. Sections 300101 et seq.: This act provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states undertaking historic and archeological resource inventories; and (3) a program of grants-in aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires that the President's Advisory Council on Historic Preservation have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.
- Flood Control Act of 1968, Section 210, Public Law 90-483: Restricted collection of entrance fee at USACE lakes and reservoirs to users of highly developed facilities requiring continuous presence of personnel.
- National Environmental Policy Act of 1969 (NEPA), Public Law 91-190, 42 U.S.C. Sections 4321 et seq.: NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a "continuing policy of the Federal Government... to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations and public law of the United States shall be interpreted and administered in accordance with the policies of the Act. It is Section 102 that requires consideration of environmental impacts associated with Federal actions. Section 101 of NEPA requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony.

Specifically, Section 101 of NEPA declares:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings
- Attain the widest range of beneficial uses of the environment without degradation risk to health or safety or other undesirable and unintended consequences
- 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
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

- River and Harbor Act of 1970 and Flood Control Act of 1970, Public Law 91-611: Establishes the requirement for evaluating the economic, social, and environmental impacts of projects.
- Public Law 92-347: This act revises Public Law 88-578, the Land and Water Conservation Fund Act of 1965, to require Federal agencies to collect special recreation user fees for the use of specialized sites developed at Federal expense and to prohibit the USACE from collecting entrance fees to projects.
- Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500: The Federal Water Pollution Control Act of 1948 (PL 845, 80th U.S. Congress), as amended in 1961, 1966, 1970, 1972, 1977, and 1987, established the basic tenet of uniform State standards for water quality. Public Law 92-500 strongly affirms the Federal interest in this area. "The objective of this act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters."
- Federal Environmental Pesticide Control Act of 1972, Public Law 92-516, 86 Stat. 973, 7 U.S.C. Sections 136 et seq.: This act completely revises the Federal Insecticide, Fungicide and Rodenticide Act. It provides for complete regulation of pesticides to include regulation, restrictions on use, actions within a single State, and strengthened enforcement.
- Public Law 93-81: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to require each Federal agency to collect special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense.
- Endangered Species Act of 1973, Public Law 93-205, 16 U.S.C. Sections 1531 et seq.: This law repeals the Endangered Species Conservation Act of 1969. It also directs all Federal departments/agencies to carry out programs to conserve endangered and threatened species of fish, wildlife, and plants and to preserve the habitat of these species in consultation with the Secretary of the Interior. This Act establishes a procedure for coordination, assessment, and consultation.
- Water Resources Development Act of 1974, Public Law 93-251: Section 107 of this law establishes a broad Federal policy which makes it possible to participate with local governmental entities in the costs of sewage treatment plant installations.
- Archeological and Historic Preservation Act of 1974, Public Law 93-291: The Secretary of the Interior shall coordinate all Federal survey and recovery activities authorized under this expansion of the 1960 act. The Federal Construction agency may transfer up to one percent of project funds to the Secretary with such transferred funds considered non-reimbursable project costs.
- Public Law 93-303: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to establish less restricted criteria under which Federal agencies may charge fees for the use of campgrounds developed and operated at Federal areas under their control.

- Safe Drinking Water Act, Public Law 93-523: The act assures that water supply systems serving the public meet minimum national standards for protection of public health. The act (1) authorizes the Environmental Protection Agency to establish Federal standards for protection from all harmful contaminants, which standards would be applicable to all public water systems, and (2) establishes a joint Federal-State system for assuring compliance with these standards and for protecting underground sources of drinking water.
- Public Law 94-422: Expands the role of the Advisory Council on Historic Preservation. Section 201 amends Section 106 of the National Historical Preservation Act of 1966 to say that the Council can comment on activities which will have an adverse effect on sites either included in or eligible for inclusion in the National Register of Historic Places.
- Clean Water Act of 1977, as amended, Public Law 95-217: This Act amends the Federal Water Pollution Control Act Amendments of 1972 and extends the appropriations authorization. The Clean Water Act is a comprehensive Federal water pollution control program that has as its primary goal the reduction and control of the discharge of pollutants into the nation's navigable waters. The Clean Water Act of 1977 has been amended by the Water Quality Act of 1987, Public Law 100-4.
- American Indian Religious Freedom Act, Public Law 95-341: The Act protects the rights of Native Americans to exercise their traditional religions by ensuring access to sites, use and possession of sacred objections, and the freedom to worship through ceremonials and traditional rites.
- Endangered Species Act Amendments of 1978, Public Law 95-632: This law amends the Endangered Species Act of 1973. Section 7 directs agencies to conduct a biological assessment to identify threatened or endangered species that may be present in the area of any proposed project. This assessment is conducted as part of a Federal agency's compliance with the requirements of Section 102 of NEPA.
- Archeological Resources Protection Act of 1979, Public Law 96-95: This Act protects archeological resources and sites that are on public and tribal lands and that fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals. It also establishes requirements for issuance of permits by the Federal land managers to excavate or remove any archeological resource located on public or Indian lands.
- Supplemental Appropriations Act, 1983, Public Law 98-63: This Act authorized the USACE Volunteer Program. The United States Army Chief of Engineers may accept the services of volunteers and provide for their incidental expenses to carry out any activity of the USACE, except policymaking or law or regulatory enforcement.

- Water Resources Development Act of 1986, Public Law 99-662: Provides for the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure.
- Native American Graves Protection and Repatriation Act, Public Law 101-601: This act requires Federal agencies to return Native American human remains and cultural items, including funerary objects and sacred objects, to their respective peoples.

APPENDIX E - ACRONYMS

ac-ft	Acre Feet
ARPA	Archeological Resources Protection Act
BLM	U.S. Bureau of Land Management
CCC	Civilian Conservation Corps
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
CRMP	Cultural Resources Management Plan
CWA	Clean Water Act
DC	District Commander
DM	Design Memorandum
DoD	Department of Defense
EA	Environmental Assessment
EO	Executive Order
EOP	Environmental Operating Principles
EP	Engineering Pamphlet
EPA	United States Environmental Protection Agency
ER	Engineering Regulation
ESA	Environmentally Sensitive Areas
F	Fahrenheit
FONSI	Finding of No Significant Impact
FS	Fully Supported

GAM	Groundwater Availability Models
GCD	Groundwater Conservation District
GIS	Geographical Information Systems
GMA	Groundwater Management Area
HDR	High Density Recreation
IPaC	USFWS Information for Planning and Conservation
LDR	Low Density Recreation
LEED	Leadership in Energy and Environmental Design
MP	Master Plan or Master Planning
MRML	Multiple Resource Management Lands
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NAGPRA	Native American Graves Protection and Repatriation Act
NGVD29/88	National Geodetic Vertical Datum (1929 or 1988)
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NRRS	National Recreation Reservation System
NSRE	National Survey on Recreation and the Environment
NVCS	National Vegetation Classification System

NWI	National Wetland Inventory
O&M	Operations and Maintenance
OHV	Off-Highway-Vehicle
OMB	Office of Management and Budget
OMBIL	Operations and Maintenance Business Information Link
OMP	Operations Management Plan for a specific lake Project
OPM	Operations Project Manager
PDT	Project Delivery Team
PL	Public Law
PM	Project Management or Project Manager
PMBP	Project Management Business Processes
PO	Project Operations
RPEC	Regional Planning and Environmental Center
RV	Recreational Vehicle
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SH	State Highway
SHPO	State Historical Preservation Office
SMPS	Shoreline Management Policy Statement
SPA	U.S. Army Corps of Engineers Albuquerque District Office
SPA-OD	Operations Division, U.S. Army Corps of Engineers, Albuquerque
SWQB	Surface Water Quality Board
VM	Vegetative Management

USACE	United States Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WDA	Workforce Development Area
WHAP	Wildlife Habitat Appraisal Procedure
WMA	Wildlife Management Area