

Rio Grande Natural Area Management Plan



Photo by Rio de la Vista

Prepared by the
Rio Grande Natural Area Commission

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The Rio Grande Natural Area Commission, 2011-2016

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Table of Contents

1.0 Introduction	6
1.1 History/ Background	7
1.1.1 Alternative to Wild and Scenic Designation	7
1.1.2 Boundary Dispute	9
1.2 Regulatory Framework	10
1.2.1 Rio Grande Natural Area Act	10
1.2.2 Rio Grande Natural Area Commission	11
1.3 Scope of Work	12
2.0 Institutional Responsibilities and Obligations	13
2.1 Mexican Water Treaty of 1906	13
2.2 The Rio Grande Compact	14
2.3 The Closed Basin Project	15
3.0 Natural Resources	16
3.1 General Description of Rio Grande Natural Area Resources	16
3.1.1 Reach #1	16
3.1.2 Reach #2	17
3.1.3 Reach #3	17
3.1.4 Reach #4	18
3.1.5 Reach #5	19
3.2 Vegetation Resource Issues and Concerns	19
3.2.1 Noxious Weeds	24
3.3 Wildlife Habitat	25
3.3.1 Fisheries	25
3.3.2 Birds	27
3.3.3 Mammals	28
3.4 Recreation Use	28
3.5. Science, Research, and Education	29
3.6 Access	30
3.7 Scenic Resources	30
3.8 Cultural Resources	31
3.8.1 General Description	31
3.8.2 History/ Background	31
3.8.3 Sites of Importance	32
3.9 Climate	36
3.10 Summary: Desired Future Condition	36
4.0 Social and Economic Considerations	37
4.1 Social	37
4.2 Economic	37
5.0 Discussion, Recommendations, and Policies for Resource Management	38
5.1 Discussion	38
5.2 Recommendations	38
5.2.1 Natural Resource Recommendations	39
5.2.2 Access Recommendations	39
5.2.3 Historical and Cultural Recommendations	40
5.2.4 Social and Economic Recommendations	40
5.2.5 BLM Specific Recommendations	40

5.3 Policies for Resource Management.....	40
6.0 Monitoring and Evaluation Plan.....	41
7.0 Summary	41
References	43
Appendix A – The Rio Grande Natural Area Act	46
Appendix B – Maps of the Rio Grande Natural Area.....	53
Appendix C – Best Management Practices (BMPs)	65
Best Management Practices	66
Road Design and Maintenance	66
Surface-Disturbing Activities	68
Livestock Grazing Management.....	69
Invasive/Noxious Weed Management	70
Developed Recreation	71
Wildlife and Riparian Habitat	71
Visual Resources Management.....	71
Appendix D – Process, Public Comments and Responses	73
Process.....	74
Public Comments and Responses.....	74
Phone Calls.....	74
Written Comments (verbatim).....	76

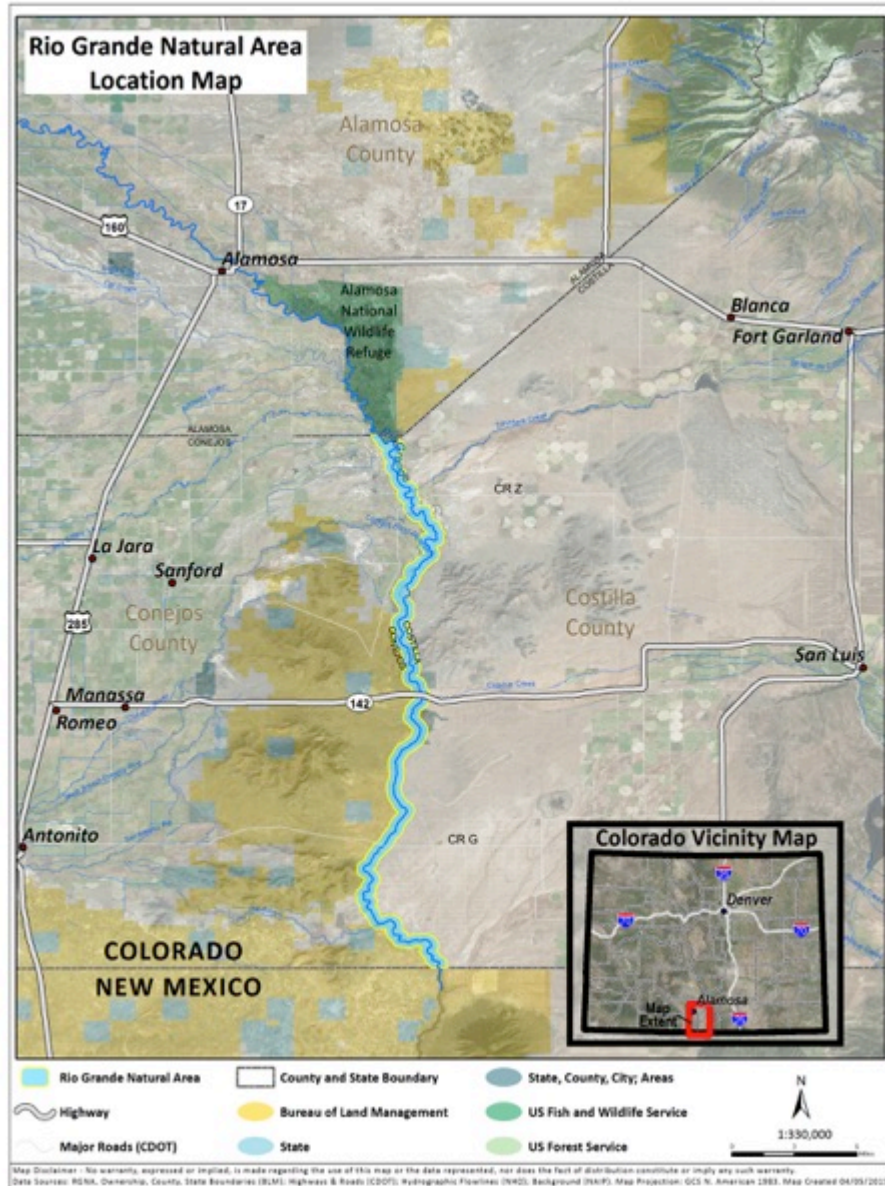
List of Abbreviations

Bureau of Land Management (BLM)
Colorado Division of Water Resources (CDWR)
Colorado Division of Wildlife (CDOW) (former)
Colorado Parks and Wildlife (CPW) (current)
Habitat Conservation Plan (HCP)
Potential Conservation Area (PCA)
Rio Grande Natural Area (RGNA)
Rio Grande Natural Area Commission (Commission)
Rio Grande Water Conservation District (RGWCD)
San Luis Valley (SLV)
US Secretary of the Department of the Interior (Secretary)
U.S. Fish and Wildlife Service (FWS)

1.0 Introduction

The Rio Grande Natural Area (RGNA) is located in the southern portion of the San Luis Valley (SLV) in south central Colorado and was established in 2006 by the U.S. Congress through Public Law 109-337, the Rio Grande Natural Area Act (Act) (Appendix A). The RGNA includes the Rio Grande river corridor from the southern boundary of the Alamosa National Wildlife Refuge (ANWR) to the Colorado/New Mexico State line, extending $\frac{1}{4}$ mile on either side of the bank of the river. Full maps of the RGNA can be found in Appendix B.

The RGNA encompasses approximately 8,800 acres, of which 5,900 acres (67%) are private lands and 2,900 acres (34%) are federal lands managed by the Bureau of Land Management (BLM), San Luis Valley Field Office. The RGNA includes a 33-mile stretch of the Rio Grande, which is also the boundary line between Conejos County to the west and Costilla County to the east.



On the Costilla County side, the land is mostly privately owned except for a parcel of county owned land near State Highway 142, whereas the Conejos County side is primarily owned by the BLM (75%) with the remaining portion (25%) being privately owned.

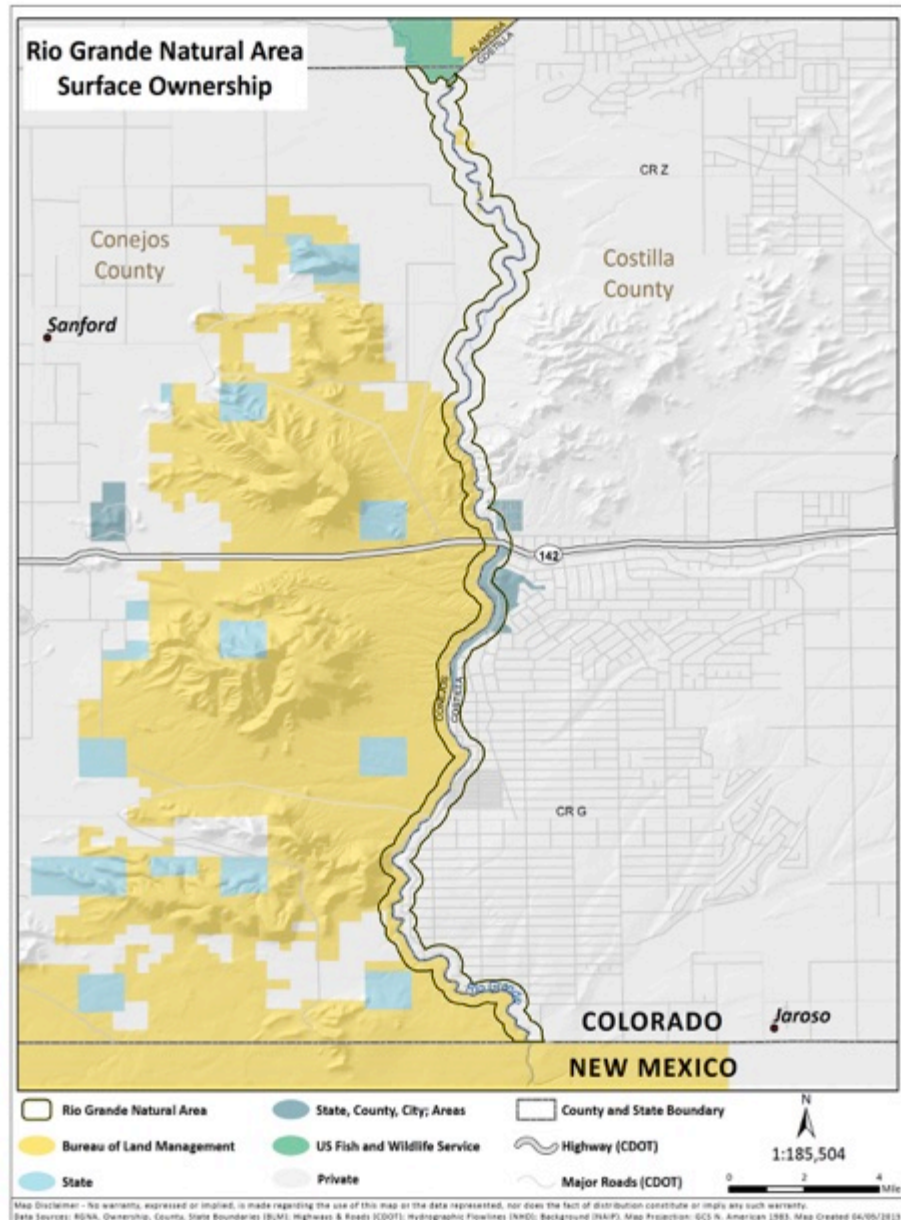
1.1 History/ Background

1.1.1 Alternative to Wild and Scenic Designation

The history of the RGNA began in the late 1980s when BLM and other federal agencies (National Park Service, U.S. Fish and Wildlife Service and U.S. Forest Service) began to identify areas suitable for designation under the National Wild and Scenic River System west wide, including the Rio Grande. Passed into law by Congress in 1968 (Public Law 90-542), the purpose of the National Wild and Scenic River System is “to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations (National Wild and Scenic River Systems 2014).

Many interest groups and those involved with natural resource management within the SLV agreed with the concept of preserving the lower reach of the Rio Grande’s

scientific, scenic, educational, and environmental values. At the same time, they were also concerned about preserving existing water rights from federal intrusion and the possible



insertion of new additional water rights at the lower end (in terms of the State of Colorado) of a river system that was already over-appropriated (see text box below). Closer examination of the National Wild and Scenic River System Act found that “the act also reserved to the United States the amount of un-appropriated water flowing through the public lands necessary to preserve and protect in free-flowing condition the specific values which were responsible for designation of the watercourse” (blm.gov).

What is Over-Appropriated?

Over-appropriated means that at any given time, there is more demand for water by water-right owners than there is actual water in the stream. In the SLV, most streams have been over-appropriated for over 100 years.

By early 1990, the BLM’s Rio Grande Wild and Scenic study team had completed their study. They determined that of the 41 miles of the Rio Grande in Colorado that were eligible for consideration as a potential addition to the National Wild and Scenic River system because they met the criteria, only 22 miles were suitable. The original 41 miles was broken in three segments:

- A. Started just below the New Ditch Dam on the river, which is located just south of Alamosa, Colorado and ended just adjacent to the Los Sauces Cemetery (19 miles in length).
- B. Started at the Los Sauces Cemetery and ended at the mouth of the Lower Rio Grande Box (14 miles in length).
- C. Started at the entrance of the Lower Rio Grande Box and ended at the Colorado/New Mexico State line (8 miles in length).

The 22 miles that were eventually considered suitable did not include Segment A.

After learning the results of the study and recognizing the potential implications associated with Wild and Scenic Designation, the Resource Advisory Council for the Canon City District (now the Front Range District) of the BLM passed two resolutions. The first resolution clearly stated, “The BLM should not recommend any of the river corridor for potential wild and scenic status in the Resource Management Plan (RMP).” The second stated “If there were to be a BLM wild and scenic river recommendation in the RMP that no Federal water reserve be made and only Rio Grande River Interstate Compact water deliveries be involved” (USDI 1991).

By the time the *San Luis Resource Area: Proposed Resource Management Plan and Final Environmental Impact Statement* (RMP) was completed and released in September of 1991, the BLM had removed Segment A as “suitable” due to “significant manageability problems” and was recommending that the lower 22 miles, for a total of 2,640 acres, be considered for some form of “enduring protection” designation such as a national conservation area, wild and scenic river status, or some other Congressional designation” (USDI 1991).

From 1991 until 2000, a local grassroots organization called the Rio Grande Corridor Advisory Committee, was established by local stakeholders with the help of the Rio Grande Water Conservation District (RGWCD) and the San Luis Valley Ecosystem Council (SLVEC). They decided to be proactive regarding Wild and Scenic designation. Working together through community consensus building, they drafted legislation to develop the RGNA as an

alternative. The alternative included 33 miles of the Rio Grande corridor, starting at the southern boundary of the Alamosa National Wildlife Refuge and continuing south to the New Mexico state line. According to the SLVEC, many of the earlier drafts were focused on the composition of the RGNA Commission Board, and later drafts aimed to reduce or eliminate roads within the area.

By January of 2000, the BLM's *Rio Grande Corridor Final Plan* was completed, heightening concerns regarding possible Wild and Scenic designation and how this might affect water rights throughout the valley. As stated in the 2000 plan, "Until Congress designates these river stretches, the BLM is managing this segment under interim management restrictions to protect their wild and scenic values" (USDI 2000). Throughout 2001, representatives from state and local governments as well as local and regional organizations wrote numerous letters in support of forming the RGNA. By August of 2002, a final draft bill was prepared. In 2006, Congress signed into law the Rio Grande Natural Area Act into law.

The Rio Grande Natural Area Act was the culmination of more than 20 years of local conservation efforts to protect a variety of natural resources while taking into account local priorities for water and land management. Moving forward, a critical element of this conservation work is the cooperative relationship between citizens, local entities such as the RGWCD and SLVEC, and state and federal resource managers. The ongoing task is to create and sustain a landscape managed with the same principles outlined in other BLM management and Counties' strategic plans such as:

- BLM San Luis Resource Area Resource Management Plan (RMP) (1991)
- BLM Rio Grande Corridor Final Plan (2000)
- Costilla County: Trails, Recreation, & Open Space Plan (2012)
- Conejos County: Comprehensive Land Use Plan (2003)

1.1.2 Boundary Dispute

The following information regarding the boundary dispute has been written by Dave Robbins, legal counsel for the Rio Grande Water Conservation District.

The Rio Grande Natural Area Commission, during its deliberations, has been informed that there exists a dispute about the proper legal boundary for property adjoining the Rio Grande on its east bank. The RGNA encompasses the Rio Grande itself and all of the land located along both banks of the Rio Grande from the southern boundary of the Alamosa National Wildlife Refuge to the Colorado-New Mexico state line, lying within one-quarter of a mile on either side of the banks of the River and the Commission's Plan is directed to those lands. There is nothing in the language of Public Law 109-337 that authorizes or empowers the Commission to consider or adjudicate questions of title to the underlying property within the Natural Area. No portions of this Plan are to be interpreted as opining upon or resolving the disputes about title to the underlying bed and banks of the Rio Grande, nor to address questions about the actual legal position of the boundary between properties abutting the Rio Grande. Those decisions are left to the appropriate courts of law and any legal decisions, if and when rendered, will be applied consistently with the provisions of this Plan.

The Rio Grande, throughout the extent of the Rio Grande Natural Area, is bounded on the west by Conejos County and on the east by Costilla County, which consists of a former Mexican land grant confirmed by a survey completed after the signing of the treaty of Guadalupe Hidalgo in 1848. The official surveys, which were conducted in 1875 and again in 1877, became the basis for a patent issued by the U.S. Department of the Interior in 1881 vesting title to the Sangre de Cristo Grant in the owners of the land grant.

The Rio Grande was not considered to be navigable at the time of Colorado statehood (1876) and, as a result, the State of Colorado did not obtain title to the bed and banks of the Rio Grande to its mean high water mark. As a result, the actual legal boundary between properties must be determined based upon existing title records. The first of two opposing positions is that the proper western boundary of properties adjoining the Rio Grande in Costilla County is the mean high water mark on the eastern bank of the Rio Grande, which suggests that adjoining property owners in Conejos County hold title to both the western bank of the Rio Grande as well as its bed to the mean high water mark on the eastern side. The countervailing position is that the legal boundary should be the middle (thallweg) of the Rio Grande with the properties bordering the Rio Grande on both the east and west having as their common boundary the middle of the river.

At the present time, no legal determination has been made concerning these countervailing positions and the Commission finds it unnecessary to comment further on the controversy since the Plan will apply to private property within the RGNA wherever it is located, but only with the consent of the private property owner. As a result, this plan is intentionally silent on the proper legal interpretation of the correct legal boundary between property situate in Costilla County and property situate in Conejos County along the east and west banks of the Rio Grande.

1.2 Regulatory Framework

1.2.1 Rio Grande Natural Area Act

The Rio Grande Natural Area Act (Appendix A) provides the overall direction for the development and management of the RGNA. The purpose of the RGNA, as stated in the Act, is to “conserve, restore and protect the natural, historic, cultural, scientific, scenic, wildlife and recreational resources of the Natural Area.” In addition to the purpose, the Act also outlines and describes the following requirements:

- Map and Legal Description – to be completed by the Secretary and be available to the public (Section 3(c)).
- Establishment of a nine-member Commission – to advise the Secretary with respect to the Natural Area (Section 4(a)).
- Cooperative Agreements – can be used to complete the management plan and other related activities (Section 5(b)).
- Management Plan – to be completed by the Secretary for Federal land and by the Commission for non-Federal lands (Section 6(a)). **The plan for non-**

Federal lands is considered non-binding unless a private landowner agrees in writing to be bound by the management plan (Section 7(c)).

- Administration of Natural Area – to be administered by the Secretary for Federal land in a manner that provides for the stated purpose and by private landowners who agree in writing to be bound by the management plan (Section 7).

1.2.2 Rio Grande Natural Area Commission

As required by the Act, the Commission was established to advise the Secretary with respect to the Natural Area and to prepare a management plan related to non-Federal land within the RGNA's boundaries. The Act states that the Commission shall be composed of nine members appointed by the Secretary, that fall under the following categories:

- Representative of the Colorado State Director of the BLM
- Manager of the Alamosa National Wildlife Refuge – U.S. Fish and Wildlife Service (USFWS)
- Representative of the Colorado Division of Wildlife (now Colorado Parks and Wildlife (CPW)) – recommended by the Governor of Colorado
- Representative of the Colorado Division of Water Resources (CDWR) – recommended by the Governor of Colorado
- Representative of the Rio Grande Water Conservation District (RGWCD) – recommended by the Governor of Colorado
- 4 members that: (1) represent the general public; (2) are citizens of the local region, and (3) have knowledge and experience in the fields of interest relating to the preservation, restoration, and use of the Natural Area.

Nominees were evaluated by the BLM based on their education, training, experience, and knowledge of the RGNA's geographical area and their ability to demonstrate a commitment to collaborative resource decision-making. After the Act was signed, it took several years for Commission members to be chosen and formally approved. The Commission first met in 2011 and is now comprised of the following individuals representing the positions described above when the RGNA Management Plan was drafted:

- Tom Heinlein – Front Range District Manager, BLM
- Michael Blenden – Refuge Zone Supervisor – Montana, Wyoming, and Utah, USFWS
- Rick Basagoitia – Area Wildlife Manager, CPW
- Craig Cotten – Division Engineer, Division 3, CDWR
- Steve Vandiver – General Manager, RGWCD
- Harold Anderson – private citizen
- Rio de la Vista – private citizen
- Michael Willett – private citizen
- Mike Gibson – private citizen (term starting in 2014)

Note that Paul Robertson, a private citizen, also served on the Commission from 2011 to 2014, and was instrumental in much of the Commission's work.

All Commission members have a 5-year term, except for the Alamosa National Wildlife Refuge Manager and are eligible for reappointment. Members are to serve without compensation and are responsible for meeting at least quarterly. The Commission is allowed to enter into cooperative agreements in order to carry out the Act, but is prohibited from acquiring any real property or interest in real property. In terms of this Management Plan, the Commission is tasked with helping achieve the overall purpose of the Act, including:

- Assisting the State of Colorado in preserving State land and wildlife within the Natural Area (Section 5(d)(2)(A)).
- Assist the State of Colorado and political subdivisions of the State in increasing public awareness of, and appreciation for, the natural, historic, scientific, scenic, wildlife, and recreational resources in the Natural Area (Section 5(d)(2)(B)).
- Encourage political subdivisions of the State of Colorado to adopt and implement land use policies that are consistent with (1) the management of the Natural Area and (2) the management plan (Section 5(d)(2)(C)).
- Encourage and assist private landowners in the Natural Area in the implementation of the management plan (Section 5(d)(2)(D)).
- Recommend property in the Natural Area that should be preserved, restored, managed, developed, maintained, or acquired to further the purposes of the Natural Area (Section 6(c)(3)(A)).

1.3 Scope of Work

This Management Plan is written to meet the requirement of Section 4 (b)(2) of the Act that states that a management plan be developed by the Commission, in coordination with appropriate agencies, political subdivisions and private landowners within the Natural Area, to address the non-Federal land within the RGNA. This plan is intended to be an informative document that provides current information regarding resource conditions. It is the intent to use this Plan to guide future RGNA land management objectives, in addition to providing input to the BLM for its corresponding RGNA Management Plan for the public lands.

This plan is written to cover the 5,900 acres of private land that fall within the designated boundary of the Natural Area. This plan does not include the 2,900 acres of BLM land, but is written to be consistent with existing BLM plans to protect the diverse and vital environment. **This management plan shall apply to private lands within the RGNA only to the extent that any private landowner agrees in writing to be bound by the management plan as specified in Section 8 of the Act. A private landowner may choose to voluntarily implement the recommendations in order to achieve the purposes of the Act.**

Section 6(c) requires that the plan take into consideration the Federal, State, and local plans in existence on the date of the enactment of the Act (October 12, 2006). It requires that the plan include an inventory of resources contained in the RGNA, including a list of property that should be preserved, restored, managed, developed, maintained, or acquired

to further the purposes of the RGNA. It also requires that the plan include the Commission's recommendation of policies (referred to as Policies for Resource Management) for resource managers that can protect the resources of the RGNA and provide for solitude, quiet use, and pristine natural values of the RGNA. Additionally, the plan should be written for continued use of the Natural Area for the purposes of education, scientific study, and limited public recreation where appropriate (i.e. on public lands and where permitted by private landowners).

For the purposes of this management plan, the RGNA resources inventory was derived from a number of existing reports, studies and other documents discussing the resources of this area and /or related nearby areas. A detailed reference list is provided at the end of this document in addition to the studies and links referenced within the report. Recommendations in this plan are based on the input of Commission members and the public, and are founded on a collaborative decision-making process with private landowners and local, state and federal governments.

Additionally, although not available in time for inclusion in this plan, a comprehensive study was initiated by the BLM and implemented by the Colorado Rio Grande Headwaters Restoration Foundation detailing the lower 33-mile stretch of the Rio Grande Corridor, which will be available in late 2015. The report from this will include current condition data and identify areas of concern. It will also develop and prioritize recommended restoration projects, such as bank stabilization, riparian habitat restoration, sediment transport mitigation, and in-stream structures. More information on the study can be found at: <http://www.riograndeheadwaters.org/streambank-stabilization.html>.

2.0 Institutional Responsibilities and Obligations

Although the Rio Grande Natural Area Act was signed into law in 2006, there is a long jurisdictional and administrative history of the Rio Grande, which is a key component of the RGNA. This history includes the Mexican Water Treaty of 1906, the Rio Grande Compact of 1939, and the Closed Basin Project completed in the 1980s.

2.1 Mexican Water Treaty of 1906

During the 1800s and early 1900s, the water of the Rio Grande was being heavily utilized for agriculture, and was being diverted from the river from the headwaters in Colorado to the lower reaches in Texas. For many years prior to 1906, the Rio Grande was, at times, dewatered in the lower reaches of New Mexico and Texas. Thus, the Mexican Water Treaty of 1906 was signed, guaranteeing the delivery of 60,000 acre-feet of water annually at the International Dam at Ciudad Juarez, except during periods of extreme drought. To ensure the United State's ability to meet this obligation, and for other reasons, Elephant Butte Reservoir was constructed in New Mexico in 1916 (Colorado Water Conservation Board 2002).

2.2 The Rio Grande Compact

The following information comes from a series of articles entitled “Colorado Water 2012” and published throughout 2012 in the Valley Courier newspaper. This full article, along with many others in that series can be accessed at <http://rgwcei.org/news-blog/69-water-2012-division-engineer-explains-rio-grande-compact.html>. CDWR’s Division 3 Water Engineer Craig Cotten wrote the following overview of the Rio Grande Compact and the Closed Basin Project:

As mentioned above, much of the Rio Grande was being diverted in the late 1800s and early 1900s for irrigation, primarily in the upper part of the Rio Grande Basin. This caused a lot of concern for New Mexico and Texas, and eventually led to the signing of the Rio Grande Compact in 1939. The Compact is an agreement “that provides for the equitable apportionment of the waters of the Rio Grande between Colorado, New Mexico and Texas.” The Compact itself provides the framework for a fair allocation and use of water in the Rio Grande and its tributaries from year to year (Cotten 2012). The Compact allows each state to develop its water resources at will, subject only to its obligations as set forth in the Compact. In essence, the compact limits all three states’ use of water from the Rio Grande to approximately what they were using in the 1920s.

In order to determine the required delivery obligations, a study of the Rio Grande was conducted during 1927 through 1936. During this time, engineers studied the amount of water used by each state and from this information, developed a schedule of required delivery for Colorado and New Mexico dependent on the total yearly flow in the river. The engineers also developed a limit on the yearly amount of water that Texas could use from the upper Rio Grande.

The Compact requires Colorado to annually deliver a certain amount of water to the state line according to its delivery schedules. The Rio Grande and Conejos have separate delivery schedules under the compact. Snowpack, rainfall, and the delivery schedules control the annual amount of water available to Colorado diverters. In any given year, from 20 to 60 percent of the water flows in the Rio Grande and Conejos River basins must be delivered to the downstream states. In a low water year, Colorado can use a higher percentage of the water, but in a high water year, Colorado must send a larger percentage to the downstream states.

It is important to note that the Compact’s delivery schedule each year allows for a credit and debit accounting provision which provides Colorado with some flexibility in managing water use from year to year.

Since 1939, the overall administration of the Compact in Colorado has been an evolutionary process marked by three distinct periods. The first period, from 1939-1967, was a time when water rights were administered as they had been during the study period of 1927 to 1936. This administration worked well until 1952, when Colorado began to under-deliver on its obligations. By the mid 1960s, Colorado’s debt to the downstream states exceeded 900,000 acre-feet. In 1966, New Mexico and Texas sued Colorado in the U.S. Supreme Court to force Colorado to comply with the

provisions of the Compact and to pay back the debt. In May of 1968, the Court granted a continuance of the case as long as Colorado met its Compact delivery obligation each and every year.

During the second period, from 1968-1985, Colorado administered the Compact pursuant to that stipulation and was forced to begin curtailing water rights, i.e. shutting off ditches, specifically to meet the Compact obligations. From approximately 1968 to the present, the Colorado State Engineer has directed that the Compact be administered as a two-river system (Rio Grande and Conejos) with each river responsible for its own delivery obligation. The State Engineer also directed that any curtailment of diversions would come from the most junior water rights, which would have otherwise been in priority on any given day of administration. Colorado met or exceeded its obligation each year from 1968 through 1984 because of the directive of the U.S. Supreme Court.

The third and current period began in June of 1985, when Elephant Butte Reservoir in Southern New Mexico spilled and eliminated Colorado's remaining debt. The lawsuit against Colorado was dismissed, and since that time Colorado has operated in accordance with the Compact and has met or exceeded its obligation.

2.3 The Closed Basin Project

In order to help the State of Colorado meet its Rio Grande Compact obligations, the U.S. Bureau of Reclamation (BOR) with local sponsorship from the Rio Grande Water Conservation District (RGWCD), developed the Closed Basin Project. This project was originally envisioned in the early 1900's but was not constructed until many years later. The Reclamation Project Authorization of 1972, passed on October 20th, 1972 gave the BOR the ability to construct, operate, and maintain the Closed Basin Division in five stages. The BOR's Closed Basin Division is located in Alamosa and Saguache Counties.

The large area of the SLV, north of the Rio Grande between Del Norte and Blanca does not have a surface outlet in to the Rio Grande and is thus considered a "Closed Basin." At the southern end of the Closed Basin area is a hydraulic divide that separates the internal drainage area of 2,940 square miles from the flows of the Rio Grande mainstream. Although the Closed Basin area waters are still tributary waters, as dictated by the laws set by the State of Colorado and the United States, they have been "duly appropriated for the Project by the Rio Grande Water Conservation District (RGWCD)."

The purpose and first priority of the Closed Basin Project is to deliver water to the Rio Grande to assist the State of Colorado in meeting its delivery requirements under the Rio Grande Compact of 1939. The second priority of the project is to maintain wetlands on the Alamosa National Wildlife Refuge (ANWR) and the Blanca Wildlife Habitat Area (BWHA), provided, that the amount of water delivered to the ANWR and the BWHA shall not exceed 5,300 acre-feet annually. The third priority was to apply to the reduction and the elimination of any accumulated deficit in deliveries by Colorado, which is no longer applicable since the spill of Elephant Butte Reservoir in 1985. The fourth and final priority is for irrigation and other beneficial uses in Colorado. The

project can also deliver water to the San Luis Lake complex and its recreational facilities.

The Closed Basin Project obtains its water by pumping from the ground water of the unconfined aquifer within the Closed Basin. The water is delivered to the Rio Grande by a 42-mile conveyance channel known as the Franklin Eddy Canal. The RGWCD own the rights of up to 117,000 acre-feet of water per year from the water that is salvaged from the Closed Basin Project. However, due to inadequate water supply, the RGWCD voluntarily reduced that right to 83,000 acre-feet per year. Approximately 43,000 acre-feet have been decreed absolute and the remaining 40,000 acre-feet are still a conditional right. From 1987 through 2014, the average total production (i.e. the amount of water delivered to the river plus to the refuges and others) has averaged approximately 20,300 acre-feet per year.

3.0 Natural Resources

3.1 General Description of Rio Grande Natural Area Resources

The RGNA provides a variety of resources, including water, fertile soil and plants, and significant wildlife habitat in a relatively natural setting. This area offers solitude, quiet use, and enjoyment for visitors. Special to the RGNA is the Rio Grande itself, which originates in the San Juan Mountains and travels for 1,885 miles before emptying into the Gulf of Mexico. The Rio Grande is the 5th longest river in North America (and among the 20 longest in the world). Comprising less than 3% of the land base, the riparian corridors along river and streams are one of Colorado's most significant, but limited, habitat types. Greater than 90 percent of the wildlife species in Colorado depend upon riparian habitats during at least one portion of their life cycle, while many are obligates whose entire lives depend upon these habitats.

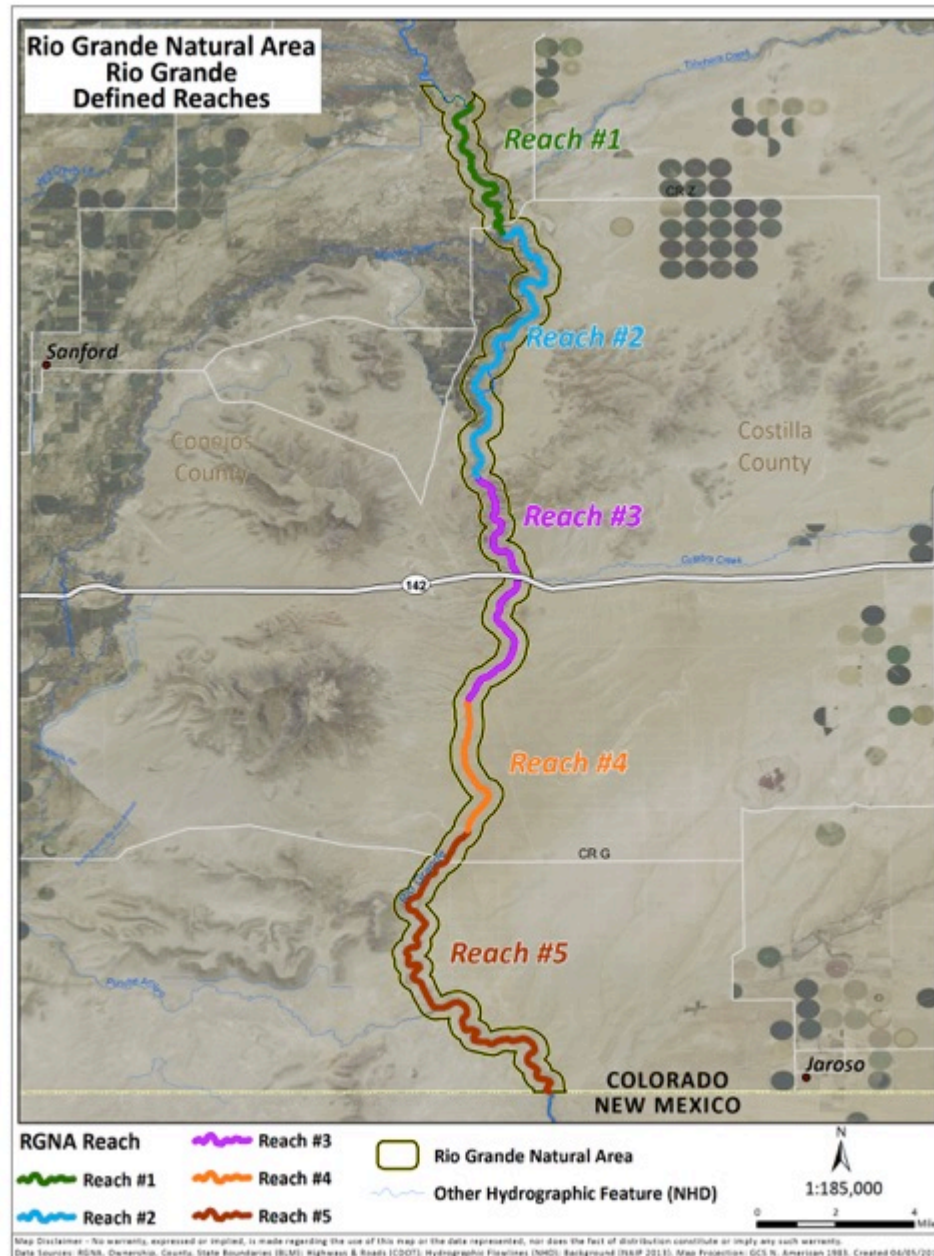
For descriptive purposes, the Rio Grande has been delineated into five different reaches based on topography and overall condition. These same five reaches are also in the Colorado Rio Grande Headwaters Restoration Foundation report, to be published in late 2015. It is important to note that all five reaches have altered hydrologic conditions due to significant water diversion upstream by reservoirs and ditches.

3.1.1 Reach #1

Reach #1 starts at the southern end of the Alamosa National Wildlife Refuge and continues for 4.37 miles to the confluence of the Rio Conejos River which flows in from the west, just downstream of the Z Road Bridge. Here, the Rio Grande has a meandering streambed with oxbows and side channels. The riparian vegetation consists of some dense willow thickets, clumps and groves of cottonwood with adjacent, large irrigated meadows. The majority of this reach consists of privately owned cattle ranches, with some smaller parcels. From the float survey done in 2014, it was found that this reach has pressures from heavy grazing of domestic livestock. Some severe cut banks are present in places.

3.1.2 Reach #2

This reach starts at the confluence of the Rio Grande and Conejos River and continues for 8.51 miles downstream. The western side of Reach #2 includes the area of Los Sauces (meaning “The Willows”). This area was an early settlement thanks to the agricultural productivity of the area, which is well watered by diversions from the Conejos. The area also features healthy wetlands with good riparian vegetation. The eastern side is primarily a high desert ecosystem. Both sides show signs of bank erosion. The bottom of this reach has a topographic transition from being flat and wide (over-wide in many places), to more canyon-like and incised.

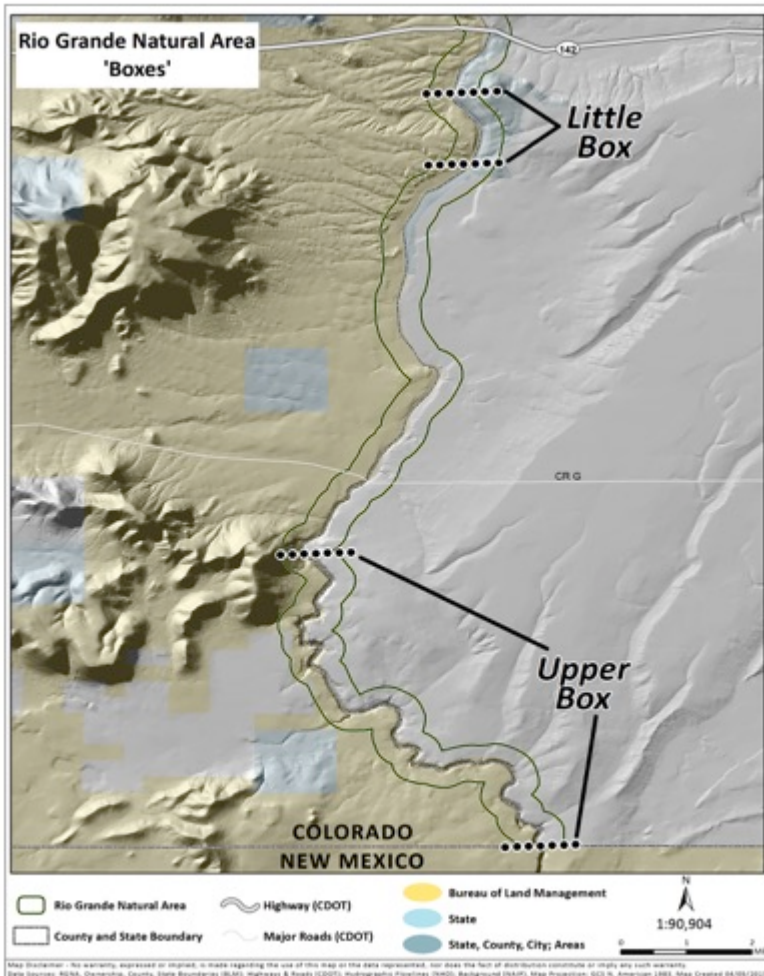


3.1.3 Reach #3

Reach #3 starts at the south end of the Brownie Hills on the east side of the Rio Grande and Flat Top Mountain to the west and continues for approximately 6.85 miles. The Rio Grande in this section is less meandering and the topography varies in and out of an incised canyon. In this section of the Rio Grande, there is unrestricted access to the river channel, which has allowed for over-grazing by abandoned (feral) horses and trespass cattle. This

has severely impacted the riparian vegetation and habitat. Where there should be dense willows and other riparian vegetation lining the river banks, there are bare, unprotected patches of ground. The vegetation that does exist in this reach is overgrazed, leaving an over-wide and shallow channel.

Immediately south of the State Highway 142 Bridge, the terrain on either side of the Rio Grande opens slightly and there is opportunity for recreational access through the BLM public land on the west bank. Then, beginning about a mile below the State Highway 142 Bridge, the “Little Box” starts and then extends for approximately 1.3 miles. Within the Little Box, vertical rock walls of up to 100 feet in height create a canyon and very narrow river zone. At the very southern end of the Little Box, the remnants of a failed dam and diversion remain on both sides of the Rio Grande and there remain large rocks across the river, which formed the base of the dam. There is also a large cement diversion structure on the east side of the Rio Grande, which is located on a parcel owned by Costilla County (with plans for recreational access). The riparian area here is somewhat more protected from the effects of grazing animals due to limited access. This habitat zone is also more narrow and steeper here than in the upper sections due to the topography of this reach.



3.1.4 Reach #4

This reach is the shortest at 3.58 miles and is predominately transitioning geologically to a more incised system. While overgrazing was observed, there was quite a bit of healthy riparian vegetation and a healthy high desert ecosystem adjacent to the river corridor. There was indication of a recent migration of the river in one location, meaning the river channel has moved laterally from one location to another within the floodplain. There was also evidence of beavers.

3.1.5 Reach #5

Reach #5 starts north of the Lobatos Bridge and continues for 10.57 miles. While this reach varies in and out of an incised canyon system, the slope of the river gradient is steeper than reaches #1-4. Below the Lobatos Bridge, the Rio Grande deepens into a more dramatic channel into the section known as the “Upper Box.” From the riverbed, the canyon walls, which reach over 200 feet in height at the Colorado/New Mexico state border, create an enclosed setting that helps convey an intense feeling of isolation and remoteness. While the cliffs confine the riparian zone in this area, there is abundant raptor perch and nesting habitat on the rock walls. This reach currently has good riparian vegetation in places and the channel bottom has more cobble than the upper sections. There are also more riffles and pools.

3.2 Vegetation Resource Issues and Concerns

There has not previously been comprehensive data collected within the RGNA to document overall riparian condition. However, the BLM initiated a study and the Rio Grande Headwaters Restoration Project was awarded a Colorado Water Conservation Board Healthy Rivers Fund Grant in 2013 in order to document and assess the lower 33-mile stretch of the Rio Grande. The full report will be available in late 2015. Data was collected during the summer of 2014 and will be used in the Lower Rio Grande Study – Phase 2, which was awarded in September of 2014. Phase 2 will include analyzing the data to identify areas of concern, and develop and prioritize restoration projects. These may include projects such as bank stabilization, riparian habitat restoration, sediment transport mitigation, and in-stream structures to enhance fisheries and address sediment and erosion issues. This document will be a useful reference for the Commission, as well as for private landowners seeking to be proactive and enhance the river corridor conditions. Additionally, it will be utilized when the BLM develops their plan for the federal lands within the RGNA.

Field visits by the Natural Area Commission found the riparian zones within the Natural Area to be in widely varying condition. Generally, conditions range from healthy and productive in the northern reaches to heavily impacted and degraded in the downstream reaches. For instance, the Commission found that overgrazing by feral horses and trespass livestock limited the creation and maintenance of productive riparian areas. Instances of impact from feral horses can be found throughout the RGNA. Other areas of the river, such as the Upper Box section, simply can not develop into vegetated riparian areas due to the fact that the shorelines are primarily rock.

Currently, according to the BLM, CPW, and other organizations, the two primary natural resource challenges within the RGNA are the overall number of abandoned and feral horses and trespass livestock grazing, both of which have tremendous impact on the riparian and upland vegetation. The over-grazing of vegetative resources by feral horses competes with managed private grazing, permitted public land grazing and numerous wildlife species for natural resources that they need to sustain themselves. All of this pressure stresses the

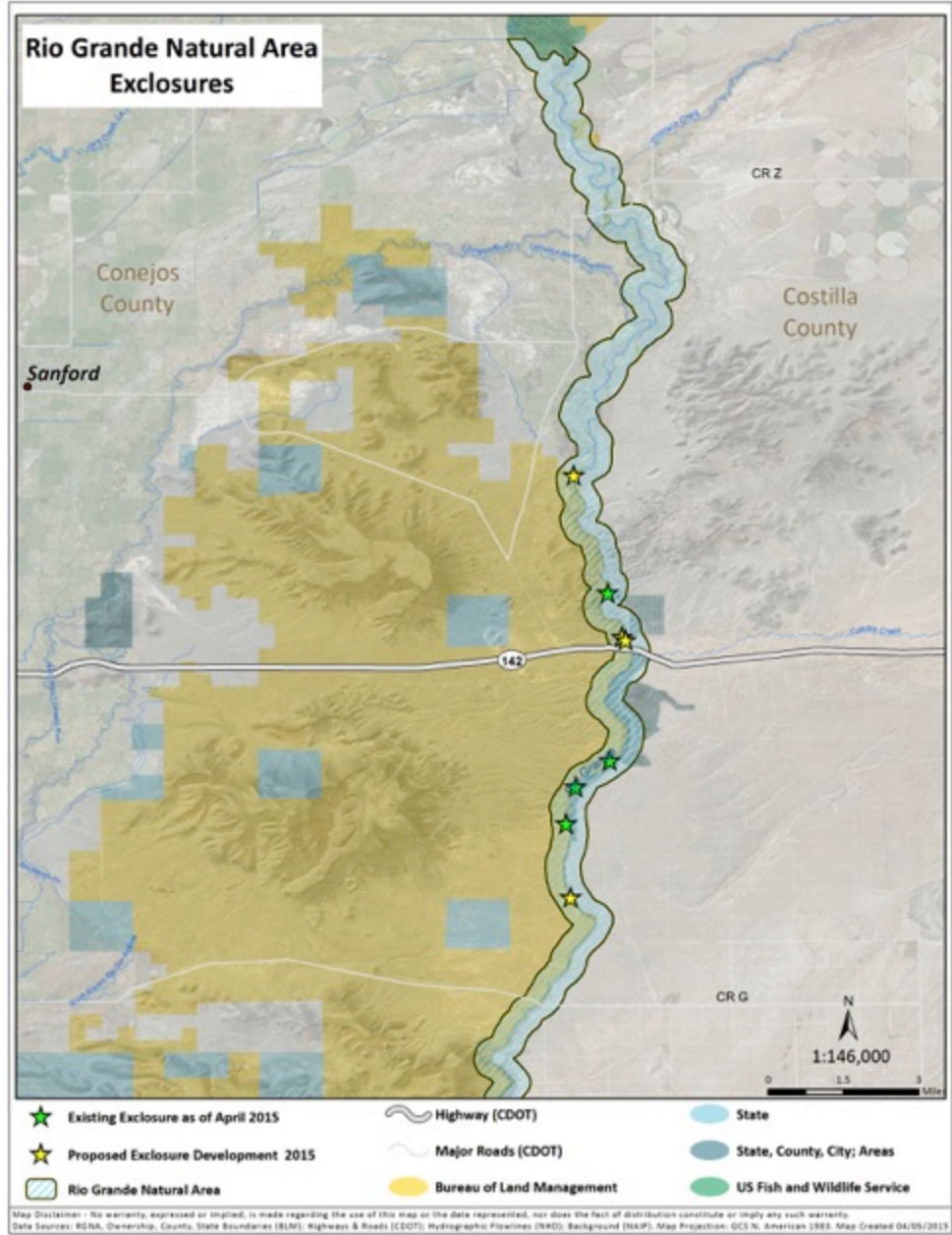
overall environment beyond its capacity to sustain healthy riparian vegetation. As the impacts to willow and cottonwood habitats in the RGNA are reduced through better management, a more functional riparian area would serve the needs of many migratory neo-tropical songbirds, including possibly the Federally endangered southwestern willow flycatcher and threatened western yellow-billed cuckoo.

Removal of the feral horses and trespass cattle will contribute greatly to improving conditions throughout the RGNA. If they can be built and maintained, riparian fences could help protect the majority of the stream bank, while allowing livestock access to water. Well-managed livestock grazing that is done within the confines of what the system can sustain over the long term can be good for the environment. Riparian fencing and specific grazing management prescriptions are two key tools that would greatly benefit the system. There are numerous resources for landowners who wish to graze their land to better understand and employ these principles in their grazing practices. Additionally, re-establishing a willow canopy cover over the river would allow the banks to stabilize and restore habitats that are important to many species of wildlife and livestock. It would also lower water temperatures and reduce evaporation, which would be beneficial to fish and other aquatic species.

Throughout the process of developing this Management Plan, the Commission heard from various individuals and organizations regarding horses within RGNA. The Commission recognizes that this issue is complex and there are varying opinions on the best course of action. Colorado Parks and Wildlife has estimated that there have been more than 500 horses within the Rio Grande Corridor. Due to the direct impacts to several wildlife species, CPW feels strongly that these horses are feral and should be removed. Also, according to the BLM, this area is not a designated herd area and thus none of these horses are federally protected under the Wild and Free-Roaming Horses and Burros Act. Therefore, BLM also considers these horses feral and believes they should be removed in order to restore the health of vegetation in the RGNA and sustain wildlife species in the area. Additionally, the Costilla County Land Use Code prohibits livestock of any kind unless the land is zoned agricultural or a permit has been approved. For instance, except for a 47 acre parcel immediately south of Highway 142 and the extreme southern end near the state line, everything else in between is considered part of a subdivision (either Rio Grande Ranches or Rio Grande River Ranches) and livestock is not allowed. Livestock found in this area are considered “estrays” per Title 35, Article 44 of the 2013 Colorado Revised Statutes and are subject to removal by an authorized brand inspector. North of Highway 142 is zoned agricultural and livestock is allowed.

Other individuals and organizations who have attended Commission meetings feel that a percentage of the horse population that utilizes the RGNA are truly wild horses, with Spanish bloodlines and therefore should not be removed. According to the write-up “Spirit of the Wild Horses,” provided by Judy Barnes, “these horses have been in the area for many generations,” and “these horses date back to this area in the 1600’s.” They further explain that these wild horses have distinct Spanish characteristics and do not impact the riparian areas since they act differently than domestic horses. One organization has recommended that a DNA study be completed to determine bloodlines.

In order to protect those riparian areas that are severely impacted, the BLM has built four exclosures and has plans to build another four in 2015. The first three exclosures are located just south of the Highway 142 bridge and were installed in the late 1980s/ early 1990s. The exclosures vary in size from ½ acre up to 3 acres. The pictures below illustrate the effectiveness of the exclosures in bringing back native vegetation within the riparian zone, demonstrating the overall riparian potential. It is clear that by excluding cattle and horses, native plants including willows and cottonwood trees, are allowed to recover and grow.





Exclosure 1 (2006)



Exclosure 1 (2015)



Exclosure 3 (1993)



Exclosure 3 (2015)

In terms of rare plants, it is important to note that during the 2000 Biological Inventory of Rio Grande and Conejos Counties, completed by Colorado Natural Heritage Program, a Potential Conservation Area (PCA) was identified near Los Sauces in Conejos County. PCAs are wetlands and riparian areas that include rare or imperiled plant and animal species, and significant plant communities. The Los Sauces site is located approximately one mile south of the town of Los Sauces, on the west side of the Rio Grande. This PCA was identified because it “supports a good example of the globally imperiled slender spiderflower (*Cleome multicaulis*),” giving it a very high significance biodiversity rank. The site also supports a fair example of a submergent giant bur-reed (*Sparganium eurycarpum*) wetland community, which is also imperiled according to the Natural Heritage Program. The site occurs along the western side of the Rio Grande within a broad floodplain where numerous large oxbow lakes occur (Colorado Natural Heritage Program 2000).

3.2.1 Noxious Weeds

A noxious weed “is any plant designated by a Federal, State or county government as injurious to public health, agriculture, recreation, wildlife or property” (BLM 2015). Commonly, a noxious weed is any plant that grows out of place and is “competitive, persistent, and pernicious” (BLM 2015). Noxious weeds are considered a natural resource concern because they can replace native vegetation, reduce agricultural productivity, cause wind and water erosion and sometimes can pose a threat to communities from wildfire.

Typically, noxious weeds are categorized onto three lists: A, B, and C (Colorado Weed Management Association 2015).

- A List weeds are invasive weeds that are either not known to occur in Colorado or are of very limited distribution and are required to be eradicated (completely eliminated).
- B List weeds are invasive weeds with populations of varying distribution and densities within the state. The level of mandated control is based on local conditions. These weeds may require eradication within certain areas of the state.
- C List species are widespread and common within the state. They may pose a risk to agricultural lands and may be required to be controlled.

In 2004, BLM completed line transects within exclosures 1 and 2, and the following noxious weeds were identified:

- Canada Thistle (*Cirsium arvense*) (B List)
Canada thistle is considered to be “an aggressive, creeping perennial weed” that reproduces from vegetative buds in its root system and from seed. It is difficult to control due to its extensive root system (CSU Extension 2015).
- Hoary Cress (*Cardaria draba*) (B List)
Hoary cress is a perennial forb that is highly competitive once established. Similar to Canada thistle, Hoary cress has extremely persistent roots, making it difficult to control (Colorado Weed Management Association 2015).
- Tall Whitetop (*Lepidium latifolium*) (B List)
Tall whitetop, which is sometimes called ironweed or pepperweed, is a herbaceous perennial that is highly invasive. Tall whitetop has deep-seated roots that make it difficult to control (Colorado Weed Management Association 2015).

More recently, salt cedar (*Tamarix sp.*), Russian olive (*Elaeagnus angustifolia*), Spotted knapweed (*Centaurea stoebe*) and Russian knapweed (*Acroptilon repens*) have been identified within the RGNA (Ed Duran, BLM Natural Resource Specialist, Personal Communication).

3.3 Wildlife Habitat

Just as the Rio Grande has been an important source of natural resources for human use, wildlife populations depend on the river for survival as well. Within the Natural Area, the most productive habitat for wildlife is the riparian zone, which includes those lands influenced by permanent water and that lie between a water source and upland habitat. Additionally, the river corridor is used by many different types of wildlife as a travel and migration corridor. The upland areas are also important for large and small mammals, numerous bird species, reptiles, amphibians and fish. A comprehensive listing of animals that could be found within each specific county can be found at the following link: <http://ndisdev2.nrel.colostate.edu/wildlife.asp>. Note however that the RGNA comprises only a very small portion of each county, so many of the animals listed may not actually be found within the RGNA.

3.3.1 Fisheries

Riverine fish populations and fishery habitats are heavily influenced by the nature of the water flows, the riparian corridor and the composition of the watershed as a whole. Uplands closest to the watercourse exert more influence than those further away, but all can have an effect over time. The reach of the Rio Grande that flows through the RGNA is bound by these principles.

Due to numerous actions and circumstances that have existed over time, this reach of the Rio Grande is likely altered from what would be its natural state. Except for the canyon reaches, the river is wide, shallow, and lacks riverine habitat features that might otherwise be present. The Rio Grande here is also lacking a well-defined riparian corridor. The varied history of water use, water rights, agreements, adjacent land uses, drought cycles, agricultural uses, recreational uses and historical fisheries management actions have all had an effect upon the river, its flows and the biotic environment.

Although currently characterized as a warm water fishery, this reach of the Rio Grande could have been a transition/cool water fishery in times past in the absence of man's influence. This section was likely a transitional/passage for the Rio Grande cutthroat trout (*Oncorhynchus clarkii virginalis*) because water temperature and water flow patterns would likely have been marginal for cutthroat trout during a significant portion of the year. However, the Rio Grande was the primary linkage between cutthroat populations in New Mexico and Colorado, so at times these fish would have been able to survive in and travel through these sections of the river to enter and establish themselves in the various reaches of the Rio Grande and its tributaries. Other native fishes such as Rio Grande Chub (*Gila Pandora*), Rio Grande Sucker (*Catostomus plebeius*), flathead chub (*Platygobio gracilis*), black bullhead (*Ictalurus melas*), green sunfish (*Lepomis cyanellus*), longnose dace (*Rhinichthys cataractae*), red shiner (*Cyprinella lutrensis*), fathead minnow (*Pimephales promelas*), and brook stickleback (*Culaea inconstans*) may have been commonly found in this reach of the Rio Grande. Early taxonomists (1874-1912) who explored the Rio Grande drainage described the Rio Grande sucker as "quite abundant throughout its range." Cope

and Yarrow (1875) stated that historically the Rio Grande chub was probably the most common fish in the San Luis River (aka Creek) and Rio Grande basins.

Along with the various forms of water usage, fisheries management has had an effect upon this section of the Rio Grande. Fisheries management objectives have varied over time ranging from no management to sport fisheries management to native species management. However, populations of native fish such as longnose dace, red shiner, fathead minnow and brook stickleback continue to persist within the RGNA. For quite some time, recreational fishing was a priority and management efforts were aimed at game fishes that were desired by the public and relatively easy to produce. Certainly, the Colorado Division of Wildlife (CDOW) stocked non-native game fish (brown trout, northern pike and channel catfish) in the Rio Grande to promote sport-fishing opportunity from 1960-1970 and these species persist today. However, CDOW has not conducted any projects (ie chemical reclamation or mechanical removal projects) in the Rio Grande to remove native fish in favor of non-native game fishes.

Sport fish populations currently found in the RGNA are typical of warm, slow moving water. Primary game species inhabiting the RGNA include northern pike (*Esox lucius*), brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), green sunfish, common carp (*Cyprinus carpio*), and white sucker (*Catostomus commersoni*). All of these species, except for the green sunfish, are game species that were introduced in the 1930s. That focus has since shifted to implementing native species projects, but success of those efforts is significantly limited by the current situation presented by non-natives and water flows. This reach of the river is no longer stocked with sport fish due to the lack of suitable in-stream habitat and inconsistent water flow that occurs during different parts of the year. Colorado Parks and Wildlife (CPW) currently manages this section of the Rio Grande for native non-game fish and has stocked Rio Grande chub since 2002. It is important to note that because of the delivery obligations of the Rio Grande Compact, the Closed Basin Project deliveries and return flows, that there is water present at all times of the year in this reach.

Currently, it would seem that the challenges to native fish species in this section of the Rio Grande are great, if not insurmountable due to habitat changes, predation and competition by non-native fishes, varied flows and fluctuating water temperatures. But, opportunities for fisheries management do exist. Improved grazing management along the river that protects fragile riparian habitats could help establish overhead cover and stream bank stability by establishing riparian and wetland vegetation along the river course. These features help collect and hold sediments that could help further develop additional features that are important to fish and other aquatic life. This is a long-term process and there are no quick fixes.

In terms of fisheries, it is important to recognize that the RGNA Act cannot conflict with the Rio Grande Compact. Furthermore, it specifically does not authorize the imposition of any mandatory stream flow requirements, nor does the Act create a Federal Reserved Water Right (Section 8(1)). Therefore, management for fisheries in this reach will have to be based upon existing flows within the construct of the Rio Grande Compact and effective

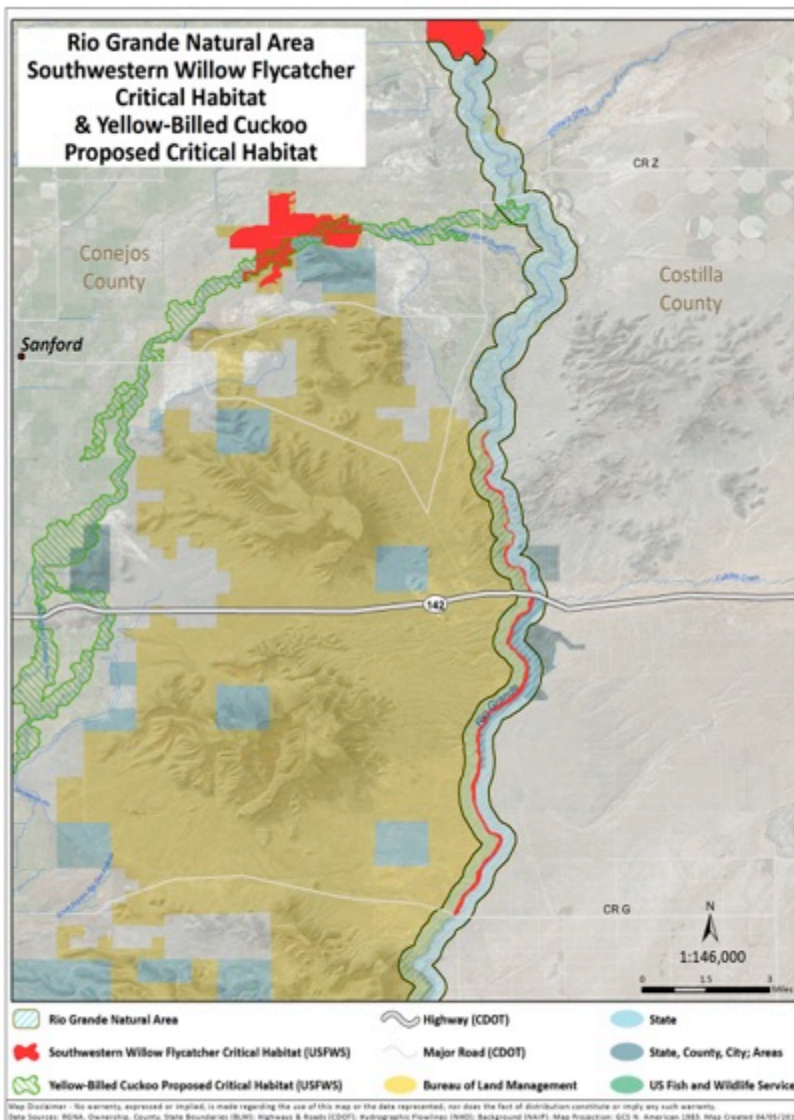
management and restoration of the riparian area.

3.3.2 Birds

The RGNA is home to many different species of waterfowl and other birds. The SLV has been described as the southernmost major water bird population area in the Central Flyway. It is also a highly important water bird production area within the state of Colorado. A significant portion of these bird populations migrate along the Rio Grande corridor and use it as a major resting and re-fueling area during spring and fall migrations.

Nesting and migrating waterfowl in the Natural Area include Canada goose (*Branta Canadensis*), mallard (*Anas platyrhynchos*), gadwall (*Anas strepera*), and cinnamon teal (*Anas cyanoptera*). There are also significant concentrations of nesting and wintering raptors, including bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), prairie falcons (*Falco mexicanus*), peregrine falcons (*Falco peregrinus*) and owls and hawks.

Portions of the RGNA are potential habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*), which was listed as an Endangered Species in 1995. The southwestern willow flycatcher is typically found along riparian habitats of the desert southwest where dense groves of willows, arrowweed, buttonbrush, box elder, and alder are present, often with a scattered overstory of cottonwood.



The USFWS designated critical habitat for the southwestern willow flycatcher in 2005, and although the SLV was not included within the original designation due to the significant

progress towards a community-based Habitat Conservation Plan (HCP), in early 2013, the USFWS designated critical habitat within the SLV. Critical habitat begins north of the Highway 142 bridge and continues south along the river corridor for 12.7 miles, encompassing a total of 452.8 acres. There is also critical habitat outside of the RGNA, including along the upper Rio Grande and Conejos River corridors, as well as some smaller tributaries, and on the ANWR and the BLM managed McIntire-Simpson parcel, on the Conejos. While there are some stands of willows in the Natural Area, they are fragmented and not continuous. Addressing trespass cattle and feral horses, along with proper management of legal grazing, would make a significant difference in the habitat capacity of the RGNA for both southwestern willow flycatcher and western yellow-billed cuckoo.

In addition to the southwestern willow flycatcher, another bird of concern is the western yellow-billed cuckoo, federally listed as threatened in 2014. According to the HCP, the western yellow-billed cuckoo was “probably never common and is now rare” (RGWCD 2012). Prior to 2004, the cuckoo had only been sighted in the SLV three times. Recent detections have found the bird along the Conejos River, among the “mature cottonwood forests with a tall, dense, willow understory with pools of standing stagnant water” (RGWCD 2012).

3.3.3 Mammals

Throughout and adjacent to the RGNA, there are many different species of large mammals that can be found, including elk, mule deer, pronghorn, black bear and mountain lions. Smaller mammals include coyotes, bobcats, ringtail cats, river otters, beavers, rabbits, prairie dogs and others. According to CPW, the RGNA is not only important winter habitat for pronghorn, elk and deer, but is also a primary travel corridor for many of these species. The RGNA is located in CPW’s Game Management Unit 83 on the east side of the river and Unit 81 on the west side of the river. Elk hunting in this area is typically unlimited with tags being available for purchase over the counter. Due to the lower number of deer and pronghorn, these hunts are limited through a lottery system.

As noted above, a primary concern of wildlife managers for this area is the growing number of feral horses found in the area and their impact on habitat for large mammals such as elk, deer, and pronghorn. Specifically, the Brownie Hills area has historically been heavily utilized by elk and deer as winter habitat, but with the increasing number of feral horses, the area no longer provides viable habitat. In the case of pronghorn, pressure from feral horses is having significant impacts to fawning and summer range habitats as well.

3.4 Recreation Use

Although not currently as popular as other recreational sites in the SLV, the RGNA is used for recreational activities such as hiking, boating, fishing, hunting, wildlife viewing, visiting cultural sites and many others. When adequate water flows exist, boaters enjoy a combination of Class I and II rapids on the Rio Grande, depending on the time of year or seasonal stream flows. A variety of bait, lure, and fly fishers can be found throughout the

RGNA. Overall, hunting within the RGNA occurs on a limited basis. Some waterfowl are hunted along the river. Additionally, there is deer, pronghorn, and small game hunting potential, as the RGNA is not closed to firearm use or hunting. With limited public land access, most hunting occurs on adjacent private land with landowner permission.

In addition to the recreational areas that are managed by the BLM, another important recreational site is the Rio Grande Greenbelt Park that is owned and managed by Costilla County. Costilla County has 862 acres of deeded land along the Rio Grande corridor just south of Highway 142. This greenbelt has two distinct areas that provide a variety of recreational uses. The northern half is primarily canyons and cliff walls that create scenic views. The southern half has gentle slopes of grass and shrubs that extend to the river bank. There is an existing jeep trail that parallels the riverbank within the southern portion. Most of the perimeter has been fenced at one time and there are cattle guards at both the northern and southern ends. At this time, there are no signs or developed amenities.

While preparing their recreation plan, the *Costilla County: Trails, Recreation, and Open Space Plan* in 2012, the County determined that there is public interest in developing this area more formally as a county park. Development might include signage, designated parking areas and picnic tables. Further development could include designated camping and fishing areas, a boat put-in and restrooms (Costilla County 2012). The Rio Grande Greenbelt was included as a potential project by San Luis Valley Great Outdoors (SLVGO) in their 2014 *Trails and Recreation Plan*. Furthermore, in addition to the 862 acres the county currently owns, the county would like to explore the potential of acquiring additional subdivision parcels that are adjacent to the current greenbelt to increase the area of publicly accessible open space (Costilla County 2012).

3.5. Science, Research, and Education

The RGNA represents an incubator of not only scientific understanding of the natural processes that have shaped the San Luis Valley for millions of years, but also a place where students can develop the skills, talent and desire to increase knowledge of the environment.

Having been identified as a BLM “Hands on the Land” (HOL) site, the RGNA is routinely used as a living laboratory by many schools throughout the SLV. HOL is “a national network of field classrooms and agency resources to connect students, teachers, families, and volunteers with public lands and waterways” (HOL 2015). HOL sites are used for hands-on education programs in natural and cultural settings that have been developed in partnership with the local schools. The programs are designed to support established school curriculum and local standards of learning as well as agency resource management objectives. Elementary students visit the RGNA for environmental education. High school and college students conduct experiments and train to become professional scientists in their own right.

3.6 Access

Most recreational activities within the Natural Area take place on public land, and designated motorized access to the river is available in a handful of locations north of State Highway 142 on BLM-managed land, such as just above the confluence of the Rio Grande and Conejos River, and along the river between State Highway 142 and the Lobatos Bridge. Due to the steep walls of the Upper Box canyon, currently there is no developed motorized access to the river below the Lobatos Bridge. The open motorized roads on the BLM-managed land provide access for other dispersed recreation activities, such as hiking, biking, picnicking, and wildlife viewing.

The only available public access on the private lands within the Natural Area occurs in the subdivided portions of Costilla County between State Highway 142 and the Lobatos Bridge. The subdivided parcels in this area bordering the river contain a right-of-way for pedestrian access along their western boundary, though the easement does not appear well-known or well-used. In other areas, trespassing on private lands does occur, and is a concern for the landowners. Recreationists should be aware of land ownership and respect the private property that comprises much of the RGNA.

3.7 Scenic Resources

On federal lands, the BLM protects and manages visual resources using Visual Resources Management (VRM). VRM is defined as “a system for minimizing the visual impacts of surface-disturbing activities and maintaining scenic values for the future” (BLM 2015). The VRM includes both an inventory stage as well as an analysis stage. The inventory stage includes identifying the visual resources of a specific area and then assigning them to one of the four inventory classes. The analysis portion is used to determine if new proposed activities in an area will affect or change the existing VRM class.

In terms of scenic resources, much of the Sangre de Cristo Mountain Range and the San Juan Mountains are visible from the RGNA. Depending on the reach of the river, visitors can also experience remarkable vistas of the Brownie Hills, Flat Top Mountain, the San Luis Hills Wilderness Study Area, the farming and ranching community of Los Sauces, and the Little and Upper Box Canyons (see map above).

The northern half of the Natural Area has relatively more development, including the small town site of Los Sauces and physical structures outside of the town related to farming and ranching operations. South of Los Sauces, the land within the RGNA remains mostly undeveloped, with a few exceptions of buildings along the east side of the Rio Grande below the State Highway 142 Bridge. Additionally, several subdivision roads, county roads, and BLM designated routes exist within the Natural Area.

From some areas of the RGNA, it is possible to see the Sangre de Cristo Mountains. The Sangre de Cristo mountain range is one of the longest mountain chains on Earth. This range starts in Colorado at Poncha Pass at the northern end of the SLV and ends at Glorieta

Pass in New Mexico. This mountain range includes ten peaks that are over 14,000 feet high and more than two-dozen over 13,000 feet high. From the RGNA, users can see the massive of Mt. Blanca (14,351 feet/ 4,373 m) and several other high peaks.

Although located outside the boundary of the RGNA, the Rio Grande del Norte National Monument (Monument) begins just south of the RGNA boundary at the New Mexico state line. The Monument was established on March 25th, 2013 by Presidential Proclamation and includes approximately 242,500 acres of BLM-administered land. The monument includes the Rio Grande river corridor and significant uplands that are important for wintering animals (BLM 2015). Ute Mountain, which is visible from the RGNA, is the highest point of the National Monument (10,093 feet). Ute Mountain is a rugged volcanic cone mountain, which at this time does not have any designated trails to the summit (Summit Post 2015).

3.8 Cultural Resources

3.8.1 General Description

The Rio Grande is an important cultural and historical resource corridor, being one of the largest river systems in the dry region of the American Southwest. The story of human use in this area spans thousands of years and provides an excellent opportunity for public outreach and education, interpretation and research. The BLM has recorded cultural resource phenomena within the RGNA including prehistoric, historic and isolated finds. However, only a very small percentage of the area has been surveyed to identify cultural resources and there is definite need to have further cultural resource surveys completed to identify and protect additional cultural resources. Some pre-historic site types include locales of stone tool manufacture, open-air and sheltered camps, rock art panels and linear rock features. Some historic sites include building foundations as well as evidence of as aboriginal riverine use and occupation, historic water development efforts, transportation/travel corridors and early turquoise, uranium, and gold mining. Additionally, many historic shepherding locations along the river can be traced to families still living the various communities today.

3.8.2 History/ Background

The SLV, which is home to the oldest town in Colorado (San Luis in Costilla County), has a long cultural history that has shaped what the valley is today. The first know inhabitants of the area were Paleo-Indian cultures (11,000+ years ago). These early groups survived by both hunting and gathering resources from a vast number of native plants that were found in the area, as did other Native American tribes that later used the area. For instance, the Rio Grande is particularly sacred to the Jicarilla Apache “Cut Soy” and the Tewa Pueblo “Posage” according to recent ethnographic research.

The Spanish starting exploring the area in the late 1500’s, but due to the SLV’s isolation and the inhospitable environment, it was largely ignored. The first recorded explorer into the SLV was Diego de Vargas in 1694. His *entrada* through the SLV was pivotal to the success

of the Hispanic resettlement of Santa Fe and northern New Mexico. By the 1800s, fur trappers passed through the valley on their way west to the San Juan Mountains. No trading posts were built in the SLV during this time due to its close proximity to Taos, which was a major trading center in the region. Lieutenant Zebulon Pike and his men came to the SLV in 1806 to explore the Rocky Mountains near Spanish territory, but were arrested for trespassing by the Spaniards in 1807. Pike and his men were captured near their encampment, moved to Mexico, and eventually released (Simonds 1994).

Mexico began issuing land grants in the area in the 1830's. However, for the most part, the region of the SLV remained unsettled due to Indian opposition until about 1850, when it became the territory of the United States. The town of San Luis de la Culebra was established in 1851 and was the first permanent settlement in the SLV (USDA 2015). In 1852, Fort Massachusetts was built to protect settlers from the Ute Indians. In 1857, the fort was relocated to a new site and became known as Fort Garland (Simonds 1994). The Fort Garland Museum now offers visitors extensive information and excellent insights into the history of that period.

Early settlements by Hispanic and others were established near the confluence of the Rio Grande and Conejos River, the Los Sauces area, where use of irrigation ditches allowed farming to prosper. According to Simonds, "primary crops were alfalfa and wheat" (1994). Additionally, the area was being used extensively for sheep and cattle grazing. It is estimated that by 1879, there were approximately 145,000 sheep and 35,000 head of cattle being raised across the SLV (Simonds 1994). By the 1880s, the population in the SLV had risen drastically, with extensive irrigation and farming activities creating prosperous communities. Today, the SLV as a whole is still heavily used for irrigated farming of crops as well as for grazing of cattle and sheep (USDA 2015). More information on current agriculture in the SLV can be found below in the Economic Section.

3.8.3 Sites of Importance

In order to protect the historical and cultural resources within the RGNA, only those that are well known and have been published will be described.

The RGNA has one structure that is listed on the National Register of Historic Places: the Lobatos Bridge, built in 1891, which crosses the Rio Grande at Conejos County Road G. This bridge has been maintained and is still frequently used and considered an important access point for residents and recreational users.



Lobatos Bridge (Photo by Molly Pitts)



Lobatos Bridge
(Photo by Kyle Sullivan)

In addition to the Lobatos Bridge, other documented sites within the RGNA that warrant interpretation and protection can be designated in several ways: 1) prehistoric/paleoindian sites, 2) historic crossings, and 3) other sites of importance. It is important to note the list below is not comprehensive.

Prehistoric/ Paleoindian Sites

- Rock Art sites – which are spread throughout the RGNA
- Rio Grande Cave/rock shelter paleoindian site



Rock Art (Photo by Molly Pitts)



Rock Art (Photo by Rio de la Vista)

Historic Crossings

- *de Vargas Crossing (1694)*
In 1694, Don Diego de Vargas, who was the Governor-General of New Mexico, raided the Pueblo of Taos in order to feed the hungry Spanish settlers in Santa Fe. Fearing retaliation, de Vargas escaped north into the SLV. The site where he crossed the Rio Grande is known as the de Vargas Crossing and is located south of the Highway 142 bridge (San Luis Valley Heritage 2015). This site is located half on private and half on BLM-managed lands.



de Vargas Crossing (Photo by Jeff Brown)

- *Valdez Ferry (1861)*
The Valdez Ferry dates back to 1861, when the first Territorial Election took place in Colorado. The Territorial Legislature granted Joseph Jacquez and Joseph Garcia a permit to operate a small ferry that would cross the Rio Grande. The ferry was critical to the trade in the SLV to ferry people and livestock across the river. The ferry crossing is located south of the Highway 142 Bridge. The ferry was owned and operated by Seledonio Valdes (Valdez), and prices for using the ferry were set by the permit (Naranjo 2002). This site is located half on private and half on BLM lands.
- *Stewart's Ferry (1863)*
Stewart's Ferry dates back to the early 1860's when it operated on the Rio Grande north of present day Los Sauces. The ferry crossing was on the route between Fort Garland and Conejos.
- *Stage Coach Route that crossed at the Valdez Ferry*
- *Military Crossing*

Other Sites of Importance

- *Kiowa Hill (1859)*
Kiowa Hill is located west of the Rio Grande and is identified as the location of a historic battle between the Ute and Kiowa in 1859.
- *Town sites, near the Lobatos Bridge*

According to the Sangre de Cristo National Heritage Area (2015), the Mondragon family lived near the Lobatos Bridge. Here they mined gold and made jewelry. This site is located on BLM-managed land.

- *Dam Site (1951/ 1952)*

The dam site is located just south of the 142 bridge and was built in 1951 by the Mortenson family. It was called the Little Box Dam and was made of rocks and dirt and included a concrete diversion gate. The dam failed on May 8, 1952, moving dirt and rocks downstream. Remnants of the dam can still be seen today, including the large rocks and the concrete diversion gate, which is now routinely covered with modern graffiti.



View of Dam Site and Diversion Gate (Photo by Molly Pitts).



Graffiti on Diversion gate (Photo by Rio de la Vista).

3.9 Climate

The climate in the SLV varies dramatically depending upon location, but the region is typically described as having moderate summers and cold winters, light precipitation and lots of sunshine. For the area within the RGNA, elevations range from 7,382 to 8,010 feet and precipitation usually occurs between April and October in the form of light showers with occasional thunderstorms. Winter precipitation is usually light snowfall, with an average of less than 40 total inches per year. Total precipitation ranges between 7-8 inches of moisture per year, making it a very dry climate. The growing season is relatively short at 90 days, with July and August usually the only frost-free months (Alamosa 2015). Average summer daytime temperatures range from 69 degrees in May to 80 degrees in August. Winter temperatures vary drastically with nighttime lows ranging from two below in January to 12 degrees in November. Although it warms up some during the day, temperatures remain fairly cold with an average high of 47 degrees in November and 40 degrees in February. January is typically the coldest month with the average high daytime temperature only reaching 34 degrees (U.S. Climate Data 2015). The historic low temperature for Alamosa was -42.2 degrees in 1978 and the historic high temperature for Alamosa was 93.9 degrees in 1994 (Climate Spy 2015).

3.10 Summary: Desired Future Condition

Desired future condition is a term used by many different land management agencies. They can be simply defined as the goals that describe the conditions that land managers are attempting to achieve over a specified period of time in a given geographic area. In some cases, the land may already be in a desired condition and land managers would focus on maintaining that over time. If the specific area is not currently in the desired conditions, managers may take actions to encourage change through a different pattern and use of management tools over time in order to reach the desired outcomes. In terms of the RGNA, the RGNA, the Commission has identified the following desired future conditions:

- Protection and enhancement of natural resources
 - Restore and maintain proper functioning riparian areas
 - Reduce feral horse populations and trespass cattle impacts over the long-term in order to improve and maintain healthy riparian conditions
- Protection and enhancement of scenic resources
 - Maintain/enhance high scenic quality
- Maintain and improve recreational opportunities
 - Increase opportunities and improve access for public use in appropriate locations
 - Manage recreational use to improve user experience.
- Protection and management of historic and archaeological resources
 - Identify, document, stabilize, and interpret historic and archaeological sites to provide appropriate level of protection
- Encourage adequate federal, state, and local government personnel on the ground to enhance public safety and customer service to maintain and manage appropriate grazing.

- Encourage County land use codes that protect areas and voluntary land protection of private lands to conserve the natural, scenic and archaeological resources.

4.0 Social and Economic Considerations

4.1 Social

The RGNA is located in Alamosa, Conejos and Costilla Counties, however, in terms of social considerations, it is important to look at the entire SLV. The population of the SLV has changed very little since 2000, with essentially no net growth. Culturally, SLV residents are approximately 47% Hispanic and 50% White non-Hispanic. Poverty is a prime issue of concern within the SLV. Several of the counties within the SLV have the highest incidence of poverty of all ages in the state, with an average of 19.7% compared to the state average of 13.2% (San Luis Valley Statistical Profile 2015). The table below provides some additional social statistics for the San Luis Valley and compares the statistics to overall Colorado.

San Luis Valley Statistics Compared to Colorado*

Item	SLV	Colorado
Population (2010 census)	46,615	5,119,329
Population Change (2000-2010) % change	-0.4	16.9
Median Age	43.0	36.1
Hispanic %	46.8	20.8
Median Value owner occupied housing (\$s)	186,000	236,200
Estimate housing vacancy rate	26.8	8.37
Female-headed household w/ children (%)	11.1	10.2
Median household income (\$s)	35,634	58,433
Median income <\$50,000 (%)	64.5	43
Source household income – cash public assistance (%)	4.2	2.2
Households with food stamp/SNAP assistance (%)	18.5	8.0
Labor force (2014)	21,120	2,810,000
Unemployment rate (%) (2014)	8.0	4.9
Unemployed, underemployed & discouraged workers (%)	22.3	17.6
Annual average weekly wage – All industry (\$)	605	978

*Source: San Luis Valley Statistical Profile of April 2015 provided by the San Luis Valley Development Resources Group.

4.2 Economic

The San Luis Valley had approximately 22,332 jobs in 2013, with agribusiness being the largest employer at 22.9%. Approximately 12.1% work in Regional and National Services such as professional and business services, information and communication, education and health services, financial activities, and trade and transportation. Government makes up 8.7% of the workforce. At almost 23% of the workforce, agriculture has been a huge part of the valley since it was settled and it continues to be a key economic driver in the SLV.

Approximately 5,119 jobs in the SLV are tied directly to agriculture (San Luis Valley Statistical Profile 2015). Additionally, according to Thorvaldson and Pritchett, the “annual value of sales and services of the Rio Grande River Basin in Colorado is \$1.8 billion, with agriculture industries comprising \$530 million (nearly 30%) of this value (2005).

Additionally, although tourism is currently only tied to approximately 1,853 jobs (8.3%) in the SLV (San Luis Valley Statistical Profile 2015), there is a great deal of potential and efforts are underway to enhance its role as an economic driver. The San Luis Valley Great Outdoors (SLV GO) Coalition recently completed a comprehensive trails and recreation plan (*SLV: Trails and Recreation Plan 2014*), emphasizing increased recreational opportunities throughout the area. More information and a link to the plan can be found at www.slvgo.com.

According to a report prepared for the Colorado Division of Wildlife (predecessor of CPW) submitted in 2008 by BBC Research and Consulting, hunting and fishing expenditures fuel a significant portion of Colorado’s economy. These economic impacts are especially significant in rural counties, many of which are highly dependent upon hunting and fishing related expenditures that supply their income. Jobs related to hunting and fishing only provide 3% of employment in the SLV, but the direct expenditures and total economic impact of hunting and fishing have a far greater effect. Direct expenditures in the SLV amounted to \$41.4 million in 2007, while total impact of those expenditures equaled \$69.2 in the same year.

5.0 Discussion, Recommendations, and Policies for Resource Management

5.1 Discussion

This Management Plan is written to not only meet the requirements of the Act but to also to recommend management practices within the RGNA that will “conserve, restore and protect the natural, historic, cultural, scientific, scenic, wildlife and recreational resources of the RGNA.” Listed below are the recommendations from the RGNA Commission, which are vital to achieving the goals for the Natural Area. Upon the end of the formal RGNA Commission, it is intended that the proposed citizens stakeholder group will continue to implement the recommendations.

Additionally, Best Management Practices (BMPs), which are “land and resource management techniques that may be applied to various authorizations, designed to maximize beneficial results and minimize negative impacts of management actions” can be found in Appendix C (USDI 2012). The BMPs listed in Appendix C should be considered and utilized when appropriate while implementing the recommendations.

5.2 Recommendations

5.2.1 Natural Resource Recommendations

- Work with the BLM, Counties, landowners and other interested parties to remove abandoned/feral horses and trespass livestock from the RGNA.
- Review, analyze and implement appropriate recommendations of the Colorado Rio Grande Headwaters Restoration Foundation (CRGHRF) Lower Rio Grande Study when completed in late 2015.
- Encourage river restoration and habitat enhancement projects including fencing where appropriate and needed for grazing management.
- Provide grazing management support for landowners.
- Fencing along the river that maintains access for livestock at key points is highly encouraged to allow riparian vegetation to establish and thrive.
- Construct permanent and/or temporary exclosures in appropriate areas to improve the condition of riparian habitat, on both BLM and private land.
- Support grant applications by partnering entities to aid and enable natural resource conservation projects within the RGNA.
- Encourage willing landowners to enter into voluntary land conservation easements and support the non-profit organizations working on these projects as possible.
- Encourage landowner participation with weed districts, soil conservation districts and BLM for active noxious weed management, including utilizing livestock for weed control.
- Encourage Costilla County to consider re-platting and lot consolidation to enhance resource management and protection within and associated with the RGNA.
- Encourage Costilla County to consider the objectives of this plan in their land use and building codes.
- Educate landowners about the BLM Visual Resource Management Class rating and recommend a VRM Class II rate in order to retain the existing character of the landscape and to offer willing landowners management tools.

5.2.2 Access Recommendations

- Support road improvements where appropriate to protect the natural resources and provide safe, reliable access for recreation in designated locations.
- Educate and inform recreationists about location of and respect for private property throughout the RGNA.
- Obtain easements with willing landowners on the east side to allow for public access to the river where feasible.
- Support historic route preservation on the west side of the river, including the road to the New Mexico border, in order to discourage trespass on private roads.
- Encourage Costilla County to preserve and develop its recreational facilities.
- Encourage Costilla County to do a road analysis relative to qualities of the RGNA, and consider lot consolidation that allows for removing and/or closing roads.
- Support existing Rio Grande boating access in Costilla County, and encourage the establishment of new locations with willing landowners in suitable locations.

- Support Costilla County’s development of primitive campsites on Costilla County public lands and parking area development where appropriate.

5.2.3 Historical and Cultural Recommendations

- Support enhanced historical experiences through additional interpretive signs that explain the historical value, where appropriate.
 - Recommend that an interpretive site be built and maintained on BLM-managed land at the 142 Bridge.
 - Recommend an interpretive site be constructed and maintained for the Little Box Dam Diversion Structure. Additionally, recommend the Diversion Structure be managed to maintain the visual quality through painting when necessary to cover the graffiti.
 - Recommend that an interpretive site be built and maintained at the Lobatos Bridge that explains the Rio Grande Compact, the bridge, and the history of the previous town site.
- Support public outreach and communication to ensure historic preservation and education.
- Encourage tribal input on the Rio Grande’s history and RGNA natural resource uses.
- Recommend priority areas for additional cultural or heritage resource investigations through partnerships with higher education institutes and field schools for surveys and studies.
- When appropriate, mitigate effects of other resource uses on sites eligible for the National Register of Historic Places sites in coordination with protection of other resources.
- Coordinate with the Sangre de Cristo National Heritage Area to support projects that enhance the historic and cultural values of the RGNA.

5.2.4 Social and Economic Recommendations

- Support experiential learning opportunities for students.
- Support employment opportunities that will benefit the RGNA (i.e. enforcement, biologists, archeologists, etc.).

5.2.5 BLM Specific Recommendations

- Support continued refinement of the Travel Management Plan for the RGNA.
- Support existing trail enhancements and boating access on public lands.
- Support enhanced recreational experiences through interpretive signs, primarily for education, not advertisement.

5.3 Policies for Resource Management

Section 6(c)(3) of the Act states that the management plan shall include recommendations of policies for resource management that (i) protect the resources of the Natural Area; and

(ii) provide for solitude, quiet use, and pristine natural values of the Natural Area. In order to achieve these goals, the Commission has recommended the following policies:

- Recommend formation and recognition of a stakeholder citizen group to help implement the recommendations, when the Commission expires on October 12, 2016.
- New funding to the BLM for the management and protection of the RGNA.
- New funding for implementation of the RGNA management plan and priorities set forth in the CRGHRF Lower Rio Grande study.

6.0 Monitoring and Evaluation Plan

In order to know and understand changes that are occurring with resource conditions within the RGNA, it is important to consistently monitor and evaluate the area. Currently, neither the BLM nor other organizations are completing any type of regular monitoring and without a comprehensive data baseline, it is difficult to develop a monitoring protocol. Thus, due to limited funds, it is recommended that monitoring within the RGNA be a collaborative process with a variety of partners working together to develop a monitoring protocol and gather important data. It is recommended that the protocol be designed once the results of the CRGHRF Lower Rio Grande Study, including baseline information, are known and priorities have been set.

It is suggested that any monitoring protocol that is designed for the RGNA allow for and incorporate the concept of adaptive management. Adaptive management is defined as “a systematic approach for improving resource management by learning from management outcomes” (RGWCD 2012).

7.0 Summary

The RGNA, signed into law through a congressional act in 2006, is the result of more than 20 years of effort put forth by various conservation groups throughout the SLV. This management plan, prepared by the Commission, will serve as the next step in helping landowners, counties, organizations and the BLM improve and restore the diverse landscape within the RGNA, including 33 miles of the Rio Grande. This plan also provides information and recommendations to assist landowners with management of their property within the RGNA.

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Appendix A – The Rio Grande Natural Area Act

Public Law 109-337
109th Congress

An Act

To establish the Rio Grande Natural Area in the State of Colorado, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Rio Grande Natural Area Act”.

SEC. 2. DEFINITIONS.

In this Act:

- (1) COMMISSION.—The term “Commission” means the Rio Grande Natural Area Commission established by section 4(a).
- (2) NATURAL AREA.—The term “Natural Area” means the Rio Grande Natural Area established by section 3(a).
- (3) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

SEC. 3. ESTABLISHMENT OF RIO GRANDE NATURAL AREA.

- (a) IN GENERAL.—There is established the Rio Grande Natural Area in the State of Colorado to conserve, restore, and protect the natural, historic, cultural, scientific, scenic, wildlife, and recreational resources of the Natural Area.
- (b) BOUNDARIES.—The Natural Area shall include the Rio Grande River from the southern boundary of the Alamosa National Wildlife Refuge to the New Mexico State border, extending $\frac{1}{4}$ mile on either side of the bank of the River.
- (c) MAP AND LEGAL DESCRIPTION.—
 - (1) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall prepare a map and legal description of the Natural Area.
 - (2) EFFECT.—The map and legal description of the Natural Area shall have the same force and effect as if included in this Act, except that the Secretary may correct any minor errors in the map and legal description.
 - (3) PUBLIC AVAILABILITY.—The map and legal description of the Natural Area shall be available for public inspection in the appropriate offices of the Bureau of Land Management.

SEC. 4. ESTABLISHMENT OF THE COMMISSION.

- (a) ESTABLISHMENT.—There is established the Rio Grande Natural Area Commission.
- (b) PURPOSE.—The Commission shall—
 - (1) advise the Secretary with respect to the Natural Area; and
 - (2) prepare a management plan relating to non-Federal land in the Natural Area under section 6(b)(2)(A).
- (c) MEMBERSHIP.—The Commission shall be composed of 9 members appointed by the Secretary, of whom—

- (1) 1 member shall represent the Colorado State Director of the Bureau of Land Management;
- (2) 1 member shall be the manager of the Alamosa National Wildlife Refuge, ex officio;
- (3) 3 members shall be appointed based on the recommendation of the Governor of Colorado, of whom—
 - (A) 1 member shall represent the Colorado Division of Wildlife;
 - (B) 1 member shall represent the Colorado Division of Water Resources;
 - (C) 1 member shall represent the Rio Grande Water Conservation District
- (4) 4 members shall—
 - (A) represent the general public;
 - (B) be citizens of the local region in which the Natural Area is established;
 - and (C) have knowledge and experience in the fields of interest relating to the preservation, restoration, and use of the Natural Area.

(d) **TERMS OF OFFICE.**—

(1) **IN GENERAL.**—Except for the manager of the Alamosa National Wildlife Refuge, the term of office of a member of the Commission shall be 5 years.

(2) **REAPPOINTMENT.**—A member may be reappointed to the Commission on completion of the term of office of the member.

(e) **COMPENSATION.**—A member of the Commission shall serve without compensation for service on the Commission.

(f) **CHAIRPERSON.**—The Commission shall elect a chairperson of the Commission.

(g) **MEETINGS.**—

(1) **IN GENERAL.**—The Commission shall meet at least quarterly at the call of the chairperson.

(2) **PUBLIC MEETINGS.**—A meeting of the Commission shall be open to the public.

(3) **NOTICE.**—Notice of any meeting of the Commission shall be published in advance of the meeting.

(h) **TECHNICAL ASSISTANCE.**—The Secretary and the heads of other Federal agencies shall, to the maximum extent practicable, provide any information and technical services requested by the Commission to assist in carrying out the duties of the Commission.

SEC. 5. POWERS OF THE COMMISSION.

(a) **HEARINGS.**—The Commission may hold such hearings, meet and act at such times and places, take such testimony, and receive such evidence as the Commission considers advisable to carry out this Act.

(b) **COOPERATIVE AGREEMENTS.**—

(1) **IN GENERAL.**—For purposes of carrying out the management plan on non-Federal land in the Natural Area, the Commission may enter into a cooperative agreement with the State of Colorado, a political subdivision of the State, or any person.

(2) **REQUIREMENTS.**—A cooperative agreement entered into under paragraph (1) shall establish procedures for providing notice to the Commission of any action proposed by the State of Colorado, a political subdivision of the State, or any person that may affect the implementation of the management plan on non-Federal land in the Natural Area.

- (3) EFFECT.—A cooperative agreement entered into under paragraph (1) shall not enlarge or diminish any right or duty of a Federal agency under Federal law.
- (c) PROHIBITION OF ACQUISITION OF REAL PROPERTY.—The Commission may not acquire any real property or interest in real property.
- (d) IMPLEMENTATION OF MANAGEMENT PLAN.—
- (1) IN GENERAL.—The Commission shall assist the Secretary in implementing the management plan by carrying out the activities described in paragraph (2) to preserve and interpret the natural, historic, cultural, scientific, scenic, wildlife, and recreational resources of the Natural Area.
- (2) AUTHORIZED ACTIVITIES.—In assisting with the implementation of the management plan under paragraph (1), the Commission may—
- (A) assist the State of Colorado in preserving State land and wildlife within the Natural Area;
- (B) assist the State of Colorado and political subdivisions of the State in increasing public awareness of, and appreciation for, the natural, historic, scientific, scenic, wildlife, and recreational resources in the Natural Area;
- (C) encourage political subdivisions of the State of Colorado to adopt and implement land use policies that are consistent with—
- (i) the management of the Natural Area; and
- (ii) the management plan; and
- (D) encourage and assist private landowners in the Natural Area in the implementation of the management plan.

SEC. 6. MANAGEMENT PLAN.

- (a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, the Secretary and the Commission, in coordination with appropriate agencies in the State of Colorado, political subdivisions of the State, and private landowners in the Natural Area, shall prepare management plans for the Natural Area as provided in subsection (b).
- (b) DUTIES OF SECRETARY AND COMMISSION.—
- (1) SECRETARY.—The Secretary shall prepare a management plan relating to the management of Federal land in the Natural Area.
- (2) COMMISSION.—
- (A) IN GENERAL.—The Commission shall prepare a management plan relating to the management of the non-Federal land in the Natural Area.
- (B) APPROVAL OR DISAPPROVAL.—
- (i) IN GENERAL.—The Commission shall submit to the Secretary the management plan prepared under subparagraph (A) for approval or disapproval.
- (ii) ACTION FOLLOWING DISAPPROVAL.—If the Secretary disapproves the management plan submitted under clause (i), the Secretary shall—
- (I) notify the Commission of the reasons for the disapproval; and
- (II) allow the Commission to submit to the Secretary revisions to the management plan submitted under clause (i).
- (3) COOPERATION.—The Secretary and the Commission shall cooperate to ensure

that the management plans relating to the management of Federal land and non-Federal land are consistent.

(c) REQUIREMENTS.—The management plans shall—

(1) take into consideration Federal, State, and local plans in existence on the date of enactment of this Act to present a unified preservation, restoration, and conservation plan for the Natural Area;

(2) with respect to Federal land in the Natural Area—

(A) be developed in accordance with section 202 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1712);

(B) be consistent, to the maximum extent practicable, with the management plans adopted by the Director of the Bureau of Land Management for land adjacent to the Natural Area; and

(C) be considered to be an amendment to the San Luis Resource Management Plan of the Bureau of Land Management; and

(3) include—

(A) an inventory of the resources contained in the Natural Area (including a list of property in the Natural Area that should be preserved, restored, managed, developed, maintained, or acquired to further the purposes of the Natural Area); and

(B) a recommendation of policies for resource management, including the use of intergovernmental cooperative agreements, that—

(i) protect the resources of the Natural Area; and

(ii) provide for solitude, quiet use, and pristine natural values of the Natural Area.

(d) PUBLICATION.—The Secretary shall publish notice of the management plans in the Federal Register.

SEC. 7. ADMINISTRATION OF NATURAL AREA.

(a) IN GENERAL.—The Secretary shall administer the Federal land in the Natural Area—

(1) in accordance with—

(A) the laws (including regulations) applicable to public land; and

(B) the management plan; and

(2) in a manner that provides for—

(A) the conservation, restoration, and protection of the natural, historic, scientific, scenic, wildlife, and recreational resources of the Natural Area;

(B) the continued use of the Natural Area for purposes of education, scientific study, and limited public recreation in a manner that does not substantially impair the purposes for which the Natural Area is established;

(C) the protection of the wildlife habitat of the Natural Area;

(D) a prohibition on the construction of water storage facilities in the Natural Area; and

(E) the reduction in the use of or removal of roads in the Natural Area and, to the maximum extent practicable, the reduction in or prohibition against the use of motorized vehicles in the Natural Area (including the removal of roads and a prohibition against motorized use on Federal land in the area on the western side of the Rio Grande River from Lobatos Bridge south to the New

Mexico State line).

(b) CHANGES IN STREAMFLOW.—The Secretary is encouraged to negotiate with the State of Colorado, the Rio Grande Water Conservation District, and affected water users in the State to determine if changes in the streamflow that are beneficial to the Natural Area may be accommodated.

(c) PRIVATE LAND.—The management plan prepared under section 6(b)(2)(A) shall apply to private land in the Natural Area only to the extent that the private landowner agrees in writing to be bound by the management plan.

(d) WITHDRAWAL.—Subject to valid existing rights, all Federal land in the Natural Area is withdrawn from—

- (1) all forms of entry, appropriation, or disposal under the public land laws;
- (2) location, entry, and patent under the mining laws; and
- (3) disposition under the mineral leasing laws (including geothermal leasing

laws).

(e) ACQUISITION OF LAND.—

(1) IN GENERAL.—The Secretary may acquire from willing sellers by purchase, exchange, or donation land or an interest in land in the Natural Area.

(2) ADMINISTRATION.—Any land or interest in land acquired under paragraph (1) shall be administered in accordance with the management plan and this Act. (f)

APPLICABLE LAW.—Section 5(d)(1) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(d)(1)) shall not apply to the Natural Area.

SEC. 8. EFFECT.

Nothing in this Act—

- (1) amends, modifies, or is in conflict with the Rio Grande Compact, consented to by Congress in the Act of May 31, 1939 (53 Stat. 785, ch. 155);
- (2) authorizes the regulation of private land in the Natural Area;
- (3) authorizes the imposition of any mandatory streamflow requirements;
- (4) creates an express or implied Federal reserved water right;
- (5) imposes any Federal water quality standard within or upstream of the Natural Area that is more restrictive than would be applicable had the Natural Area not been established; or
- (6) prevents the State of Colorado from acquiring an instream flow through the Natural Area under the terms, conditions, and limitations of State law to assist in protecting the natural environment to the extent and for the purposes authorized by State law.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this Act.

SEC. 10. TERMINATION OF COMMISSION.

The Commission shall terminate on the date that is 10 years after the date of enactment of this Act.

Approved October 12, 2006.

LEGISLATIVE HISTORY—S. 56:

SENATE REPORTS: No. 109-45 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD:

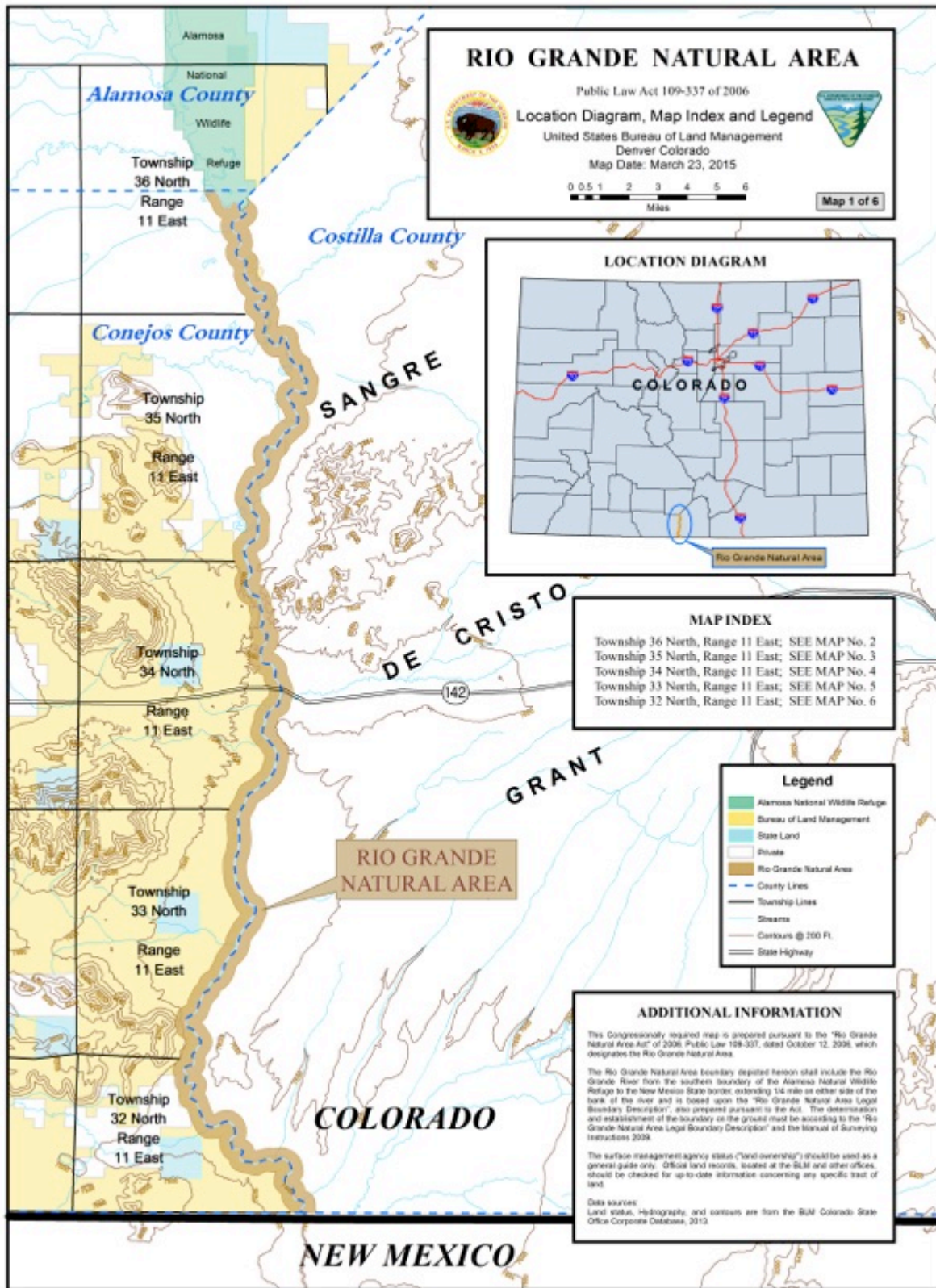
Vol. 151 (2005): July 26, considered and passed Senate.

Vol. 152 (2006): Sept. 27, considered and passed House.

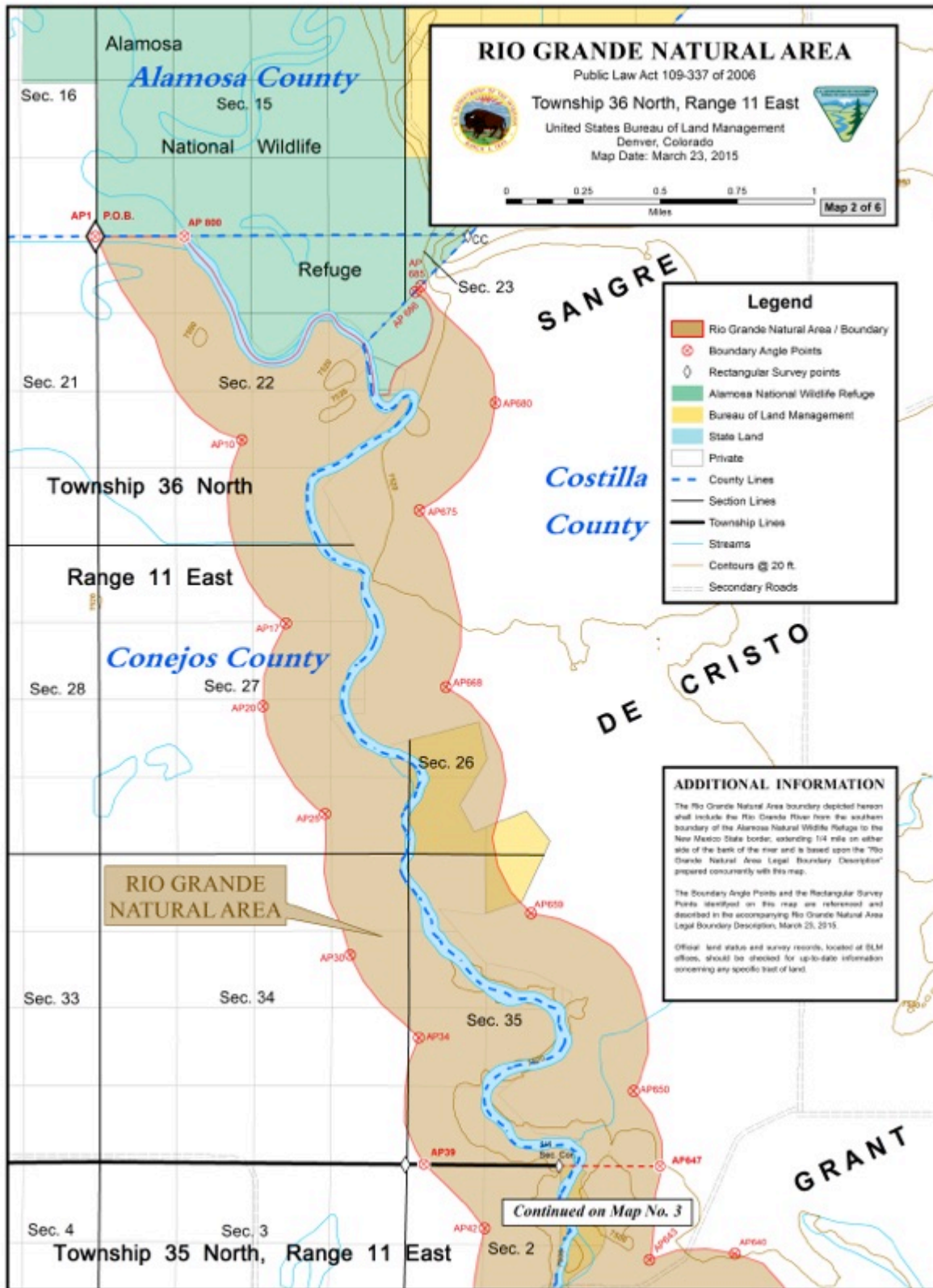
WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 42 (2006):

Oct. 13, Presidential statement.

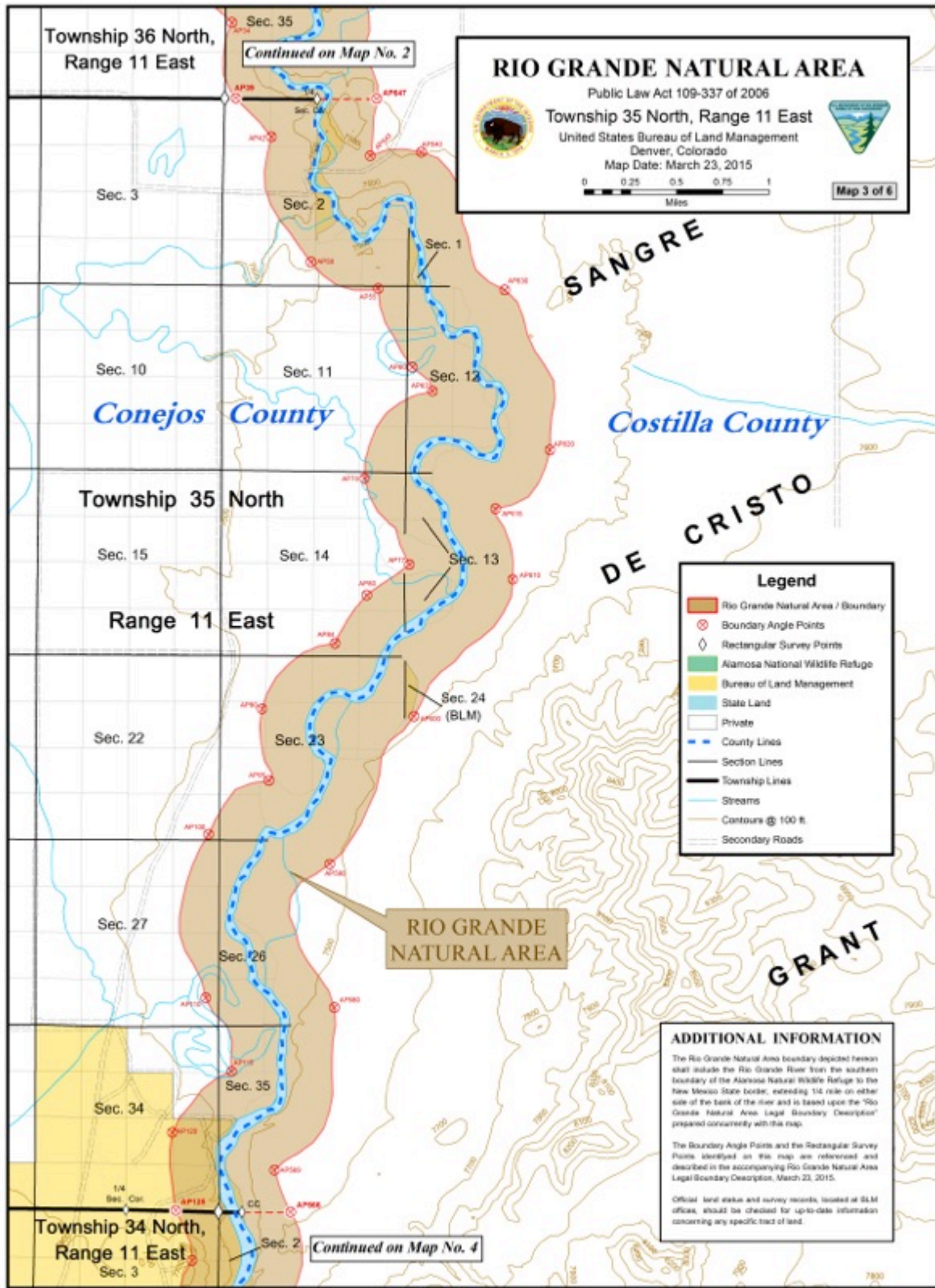
Appendix B – Maps of the Rio Grande Natural Area



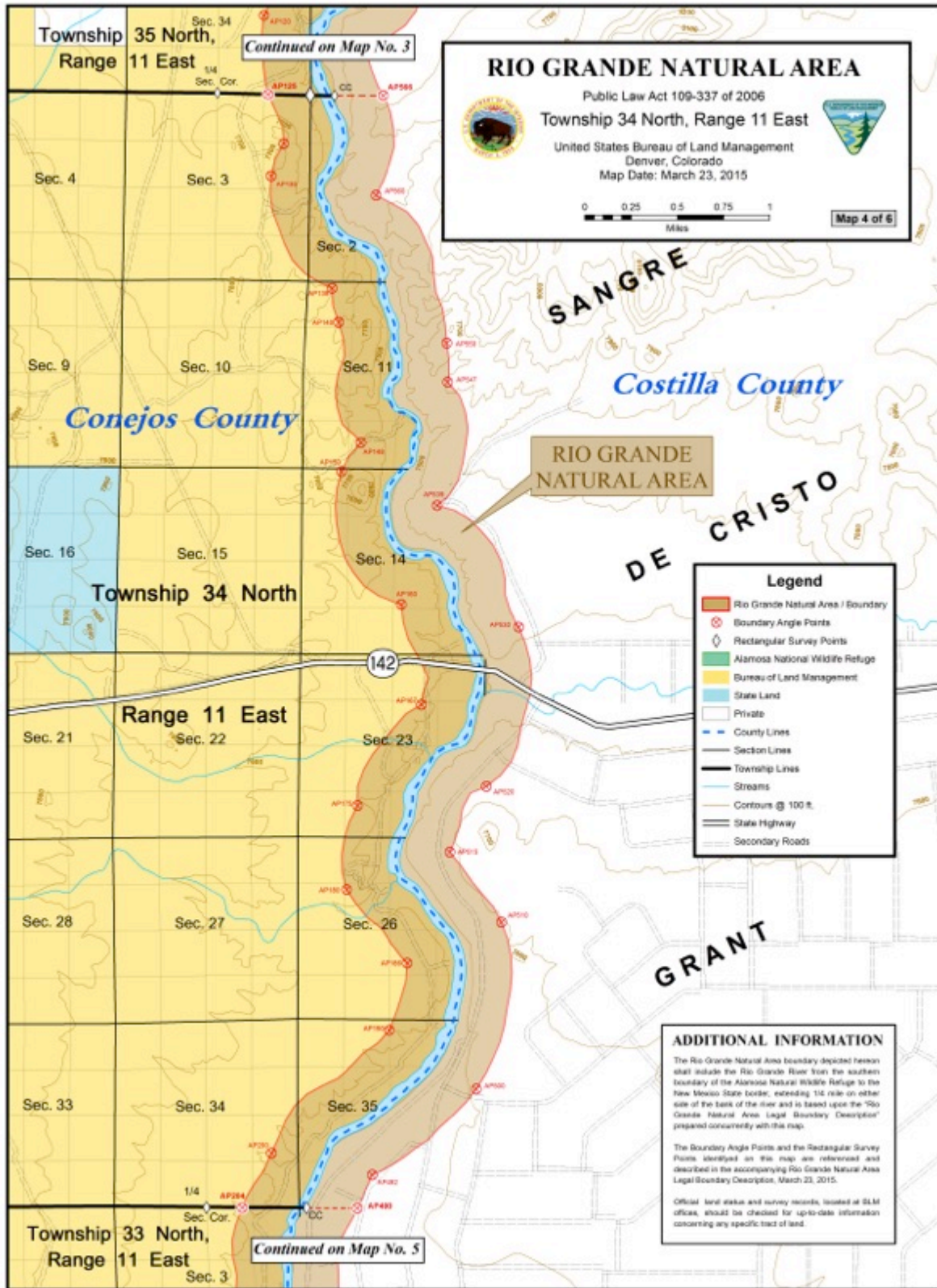
Map 1 - Overview Map



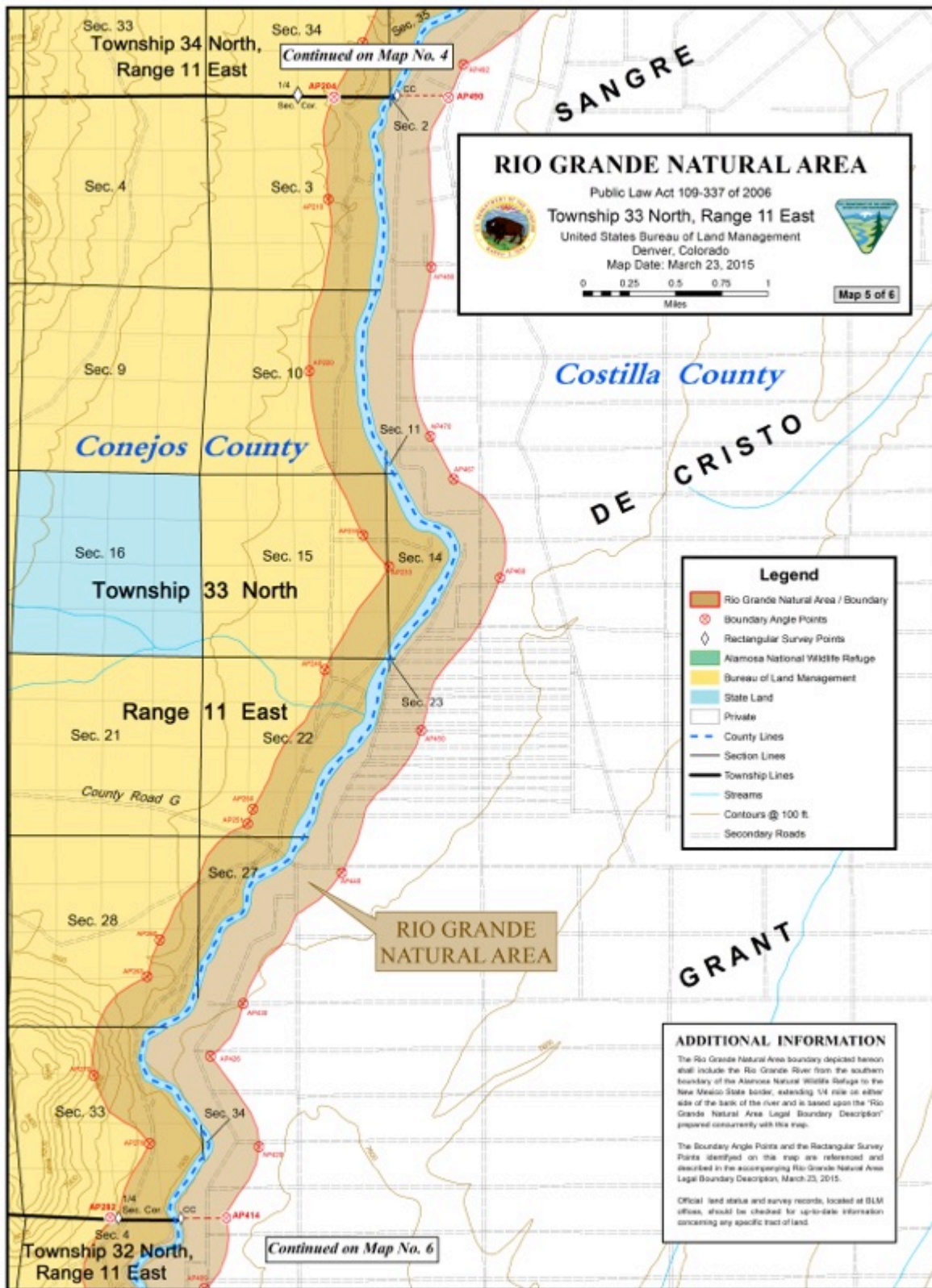
Map 2 of 6



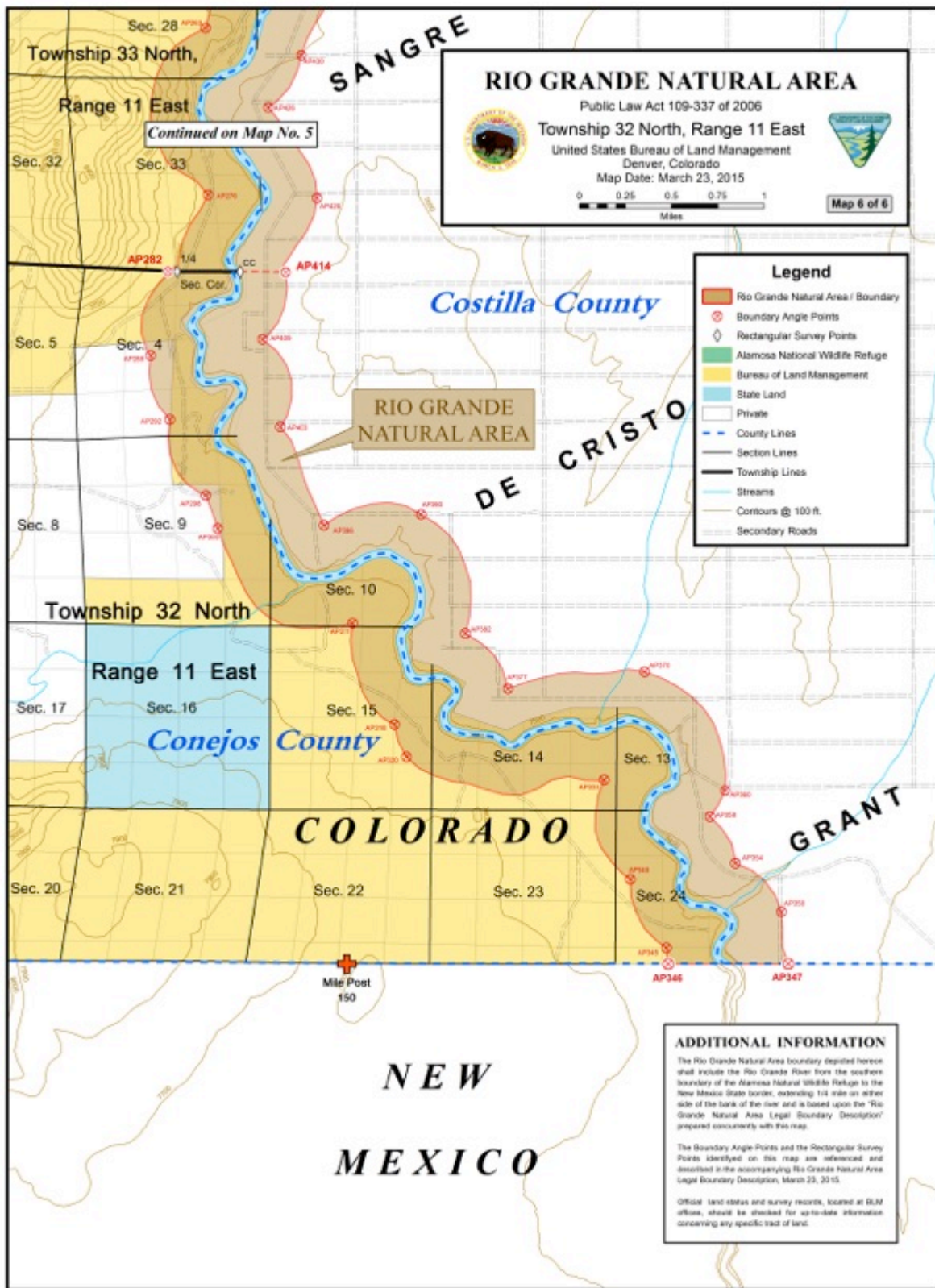
Map 3 of 6



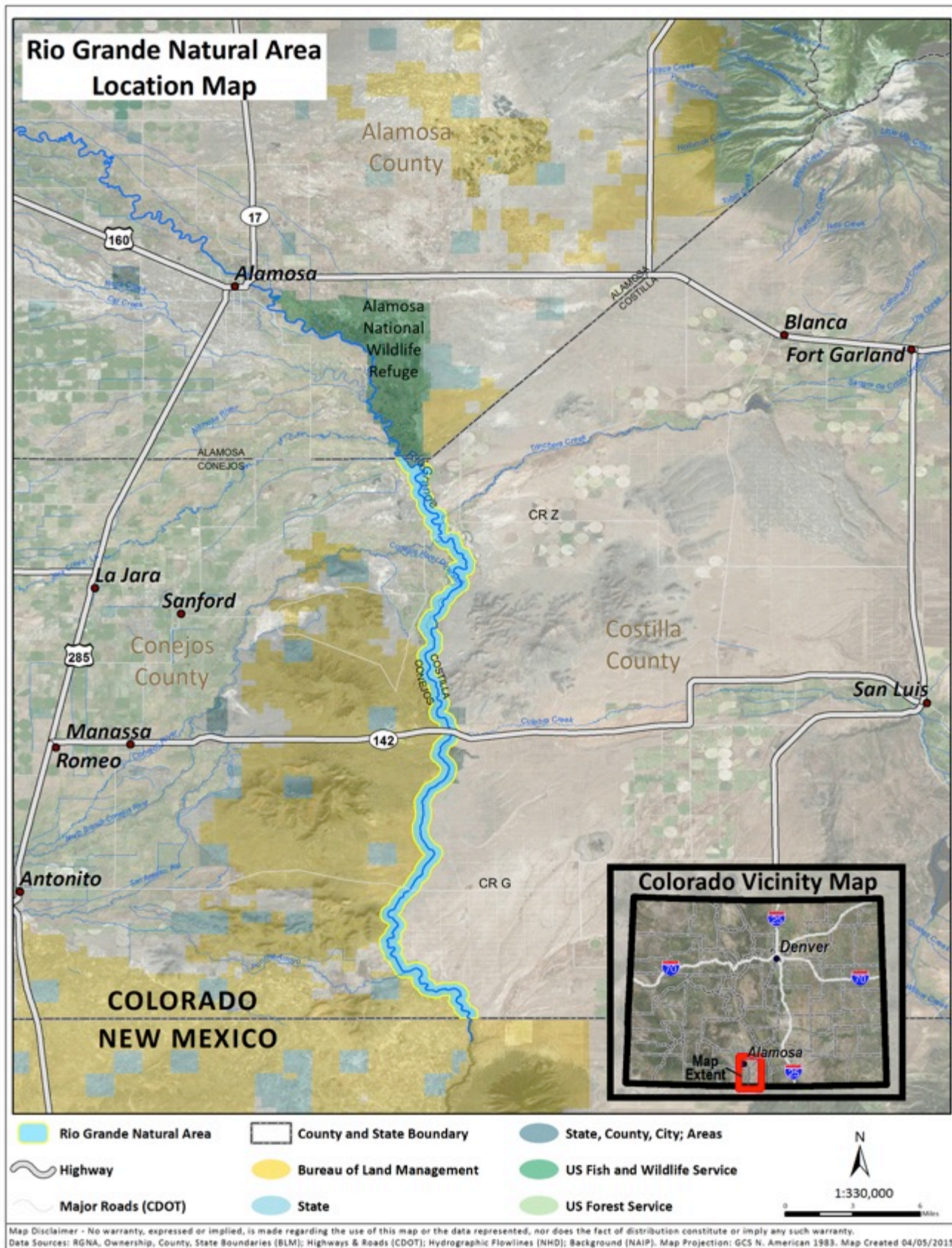
Map 4 of 6



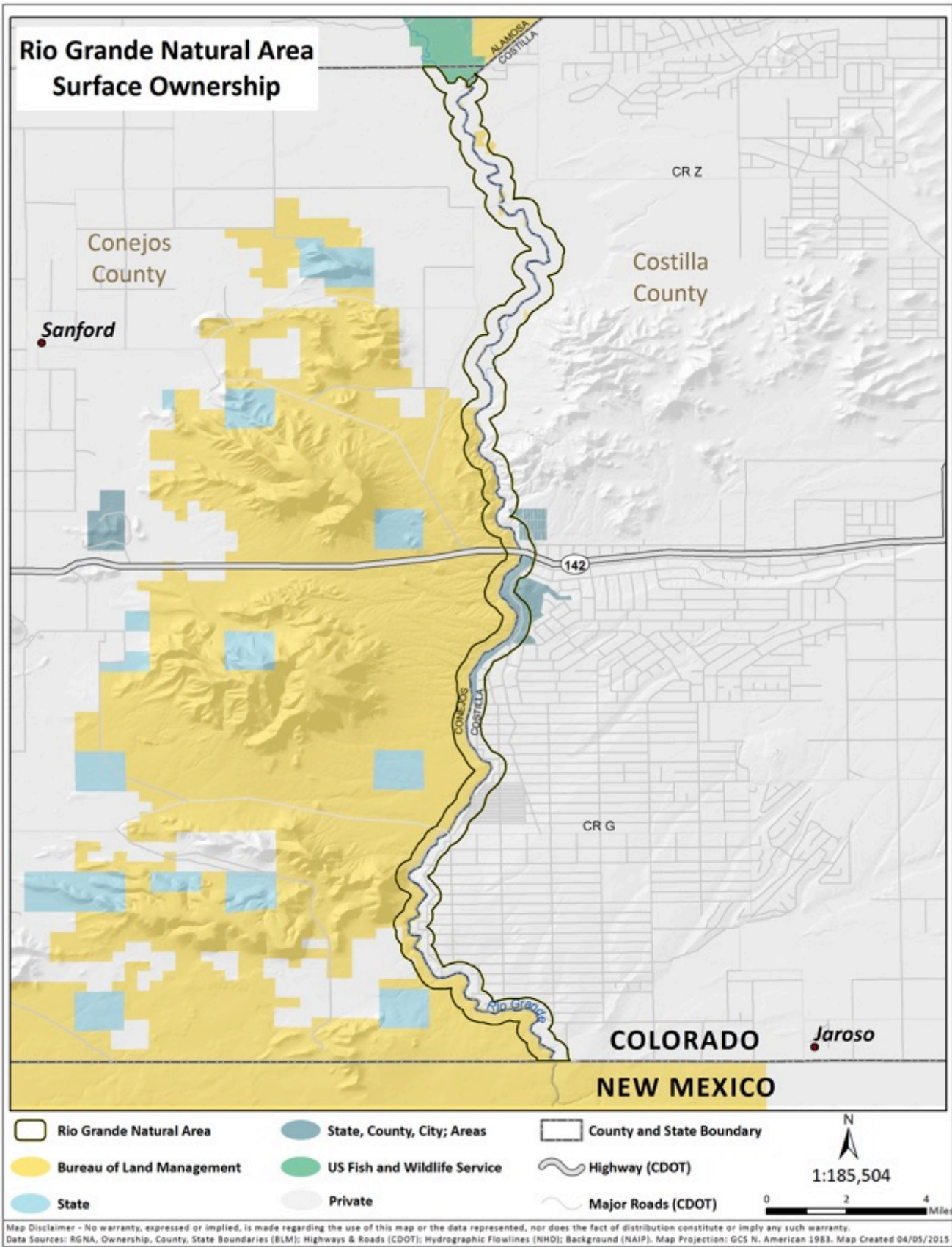
Map 5 of 6



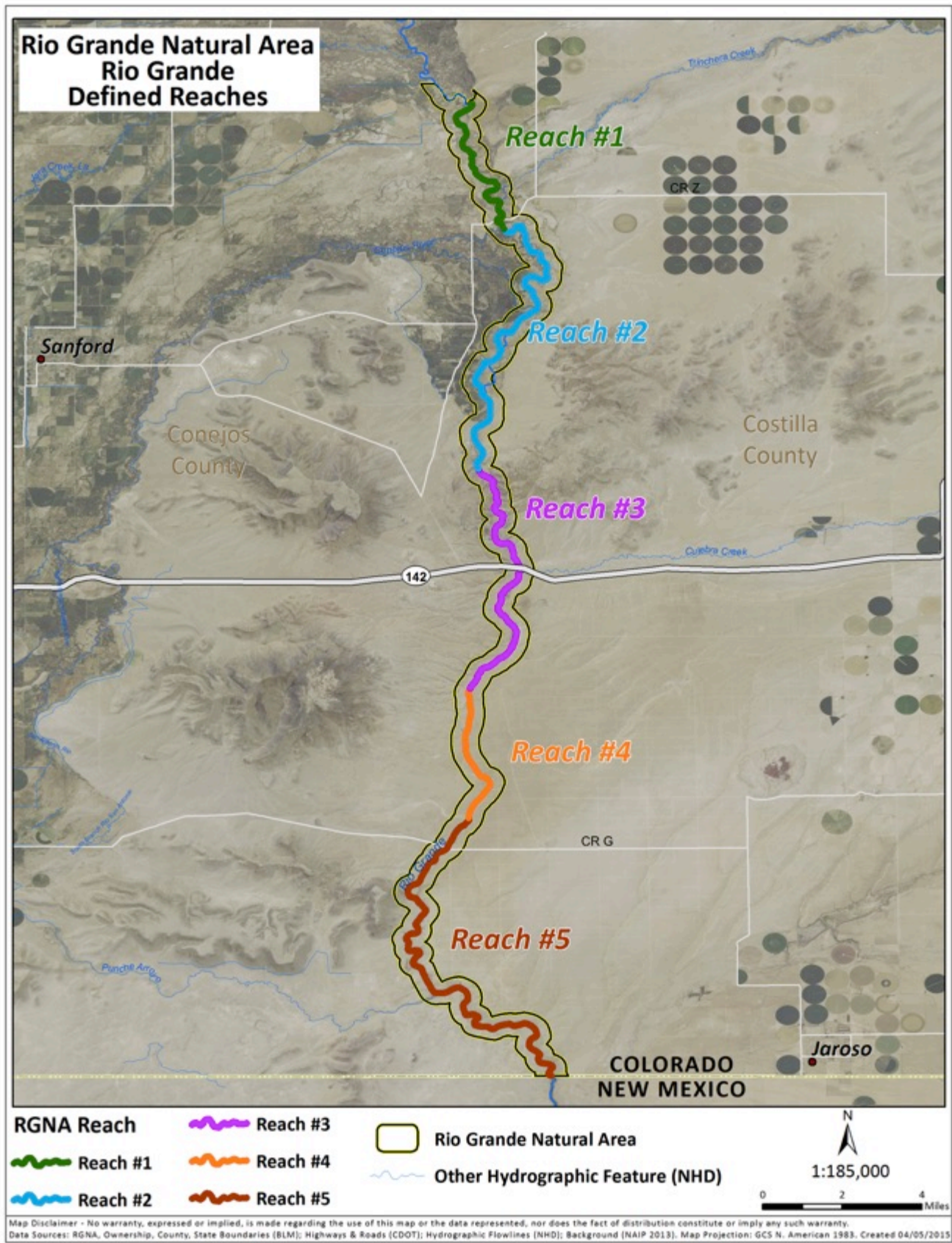
Map 6 of 6



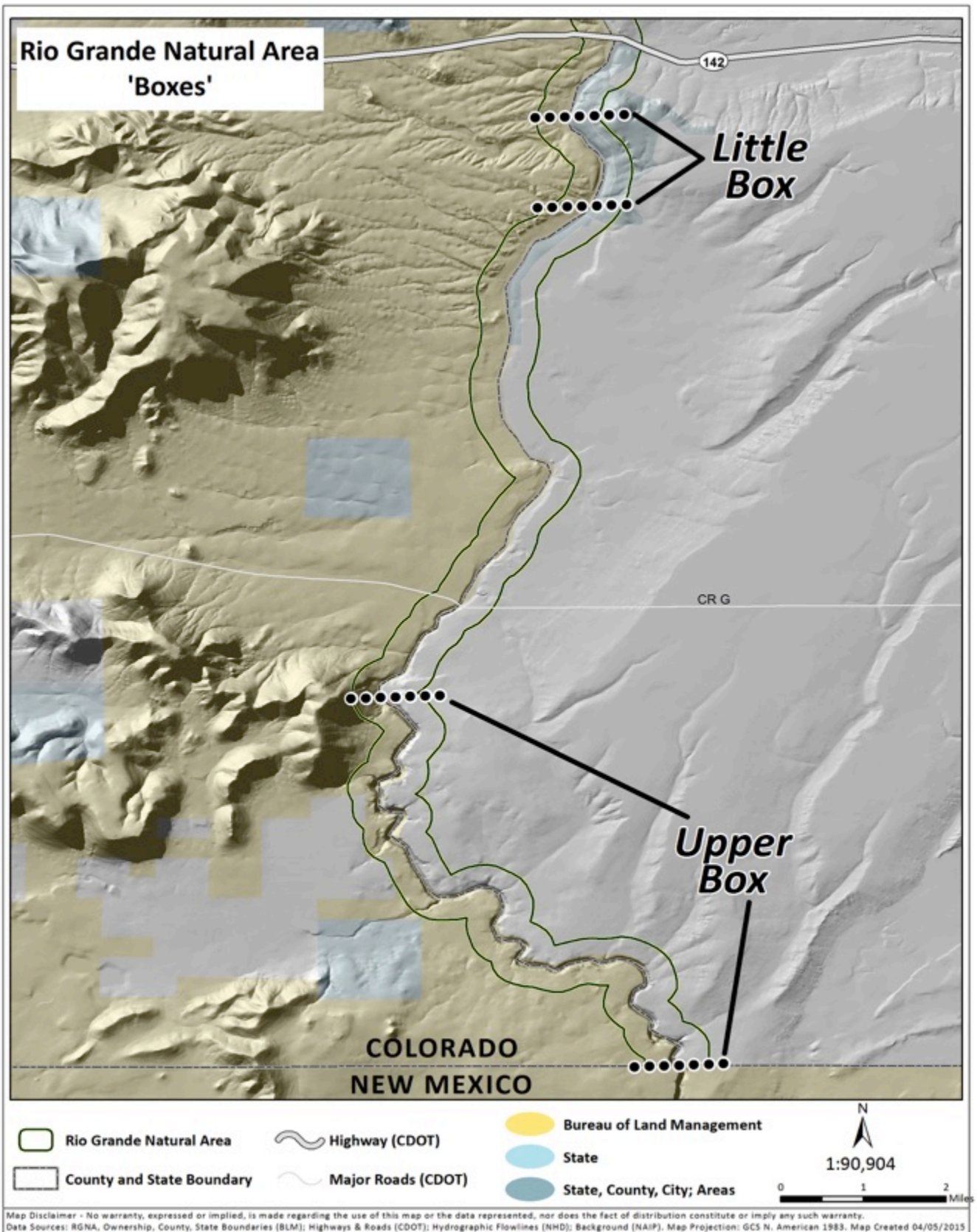
Rio Grande Natural Area Vicinity Map



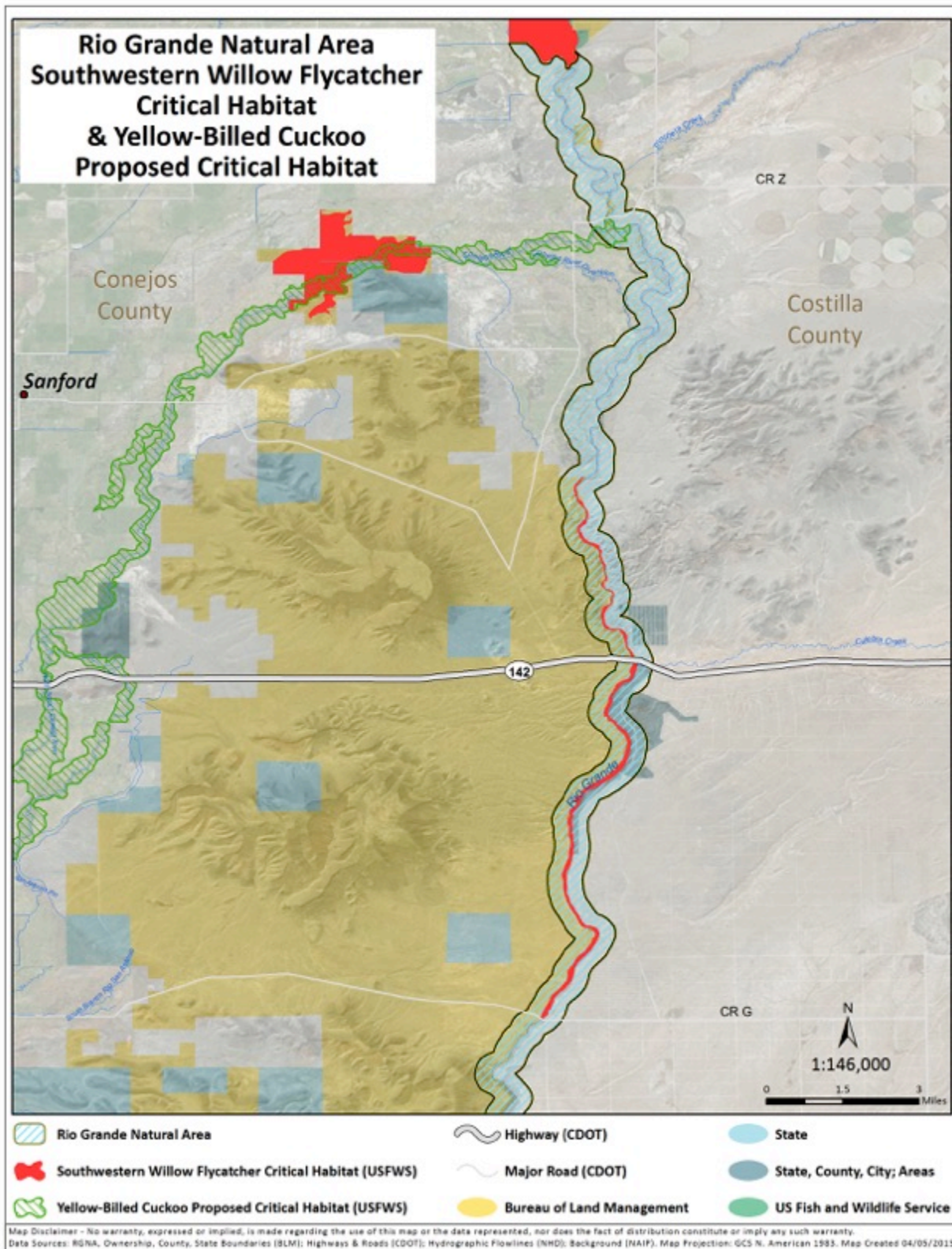
Rio Grande Natural Area Land Ownership Map



Rio Grande Natural Area "Reach" Map



Rio Grande Natural Area "Box" Map



Rio Grande Natural Area Southwestern Willow Flycatcher and Yellow-Billed Cuckoo Map

Appendix C – Best Management Practices (BMPs)

Best Management Practices

Best management practices (BMPs) are those land and resource management techniques, which may be applied to various activities, designed to maximize beneficial results and minimize negative impacts. Listed below are those measures most applicable to projects, permits, and other actions potentially taking place within the Rio Grande Natural Area. **Although not required on private land, these BMP's are recommended by the Commission to mitigate potential negative impacts.**

BMPs are defined as methods, measures, or practices selected on the basis of site-specific conditions to provide the most effective, environmentally sound, and economically feasible means of managing an activity and mitigating its impacts. BMPs include, but are not limited to, structural and nonstructural controls, operations, and maintenance procedures. BMPs can be applied before, during, and after pollution-producing or surface-disturbing activities to reduce or eliminate the introduction of pollutants into receiving waters (40 Code of Federal Regulation 130.2(m), Environmental Protection Agency Water Quality Standards Regulation) or to prevent unnecessary or undue degradation of resources.

BMPs described in this appendix are a compilation of existing policies and guidelines and commonly employed practices designed to assist in achieving the objectives for maintaining or minimizing water quality degradation from nonpoint sources, loss of soil productivity, providing guidelines for aesthetic conditions within watersheds, and mitigating impacts to soil, vegetation, or wildlife habitat from surface disturbing activities. BMPs should be selected and implemented as necessary, based on site-specific conditions, to meet a variety of resource objectives for specific management actions. Therefore, this document does not provide an exhaustive list of BMPs, as additional BMPs or modifications may be necessary to minimize the potential for negative impacts.

In addition, implementation and effectiveness of BMPs need to be monitored to determine whether the practices are achieving resource objectives and accomplishing desired goals. Adjustments should be made as necessary.

Road Design and Maintenance

(1) Design roads to minimize total disturbance, to conform to topography, and to minimize disruption of natural drainage patterns.

(2) Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity and the overall transportation objectives, and minimizing damage to the environment.

(3) Locate roads on stable terrain such as ridge tops, natural benches, and flatter transitional slopes near ridges and valley bottoms and moderate side slopes and away from slumps, slide prone areas, concave slopes, clay beds, and where rock layers dip parallel to the slope. Locate roads on well- drained soil types; avoid wet areas.

(4) Construct cut and fill slopes to be approximately 3(h):1(v) or flatter where feasible. Locate roads to minimize heights of cut banks. Avoid high, steeply sloping cut banks in highly fractured bedrock.

(5) Avoid head walls, mid slope locations on steep, unstable slopes, fragile soils, seeps, old landslides, side slopes in excess of 70 percent, and areas where the geological bedding planes or weathering surfaces are inclined with the slope. Implement extra mitigation measures when these areas cannot be avoided.

(6) Construct roads for surface drainage by using out slopes, crowns, grade changes, drain dips, water bars and/or in-sloping to ditches as appropriate.

(7) Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads where traffic volume is low and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation

is wanted. Out-sloping is not recommended on steep slopes. Sloping the road base to the inside edge is an acceptable practice on roads with steep side slopes and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.

(8) Crowning and ditching are recommended for arterial and collector roads where traffic volume, speed, intensity, and user comfort are considerations. Recommended gradients range from 0 to 15 percent where crowning and ditching may be applied, as long as adequate drainage away from the road surface and ditch lines is maintained.

(9) Minimize excavation when constructing roads through the use of balanced earthwork, narrowing road widths, and end hauling where side slopes are between 50 and 70 percent.

(10) If possible, construct roads when soils are dry and not frozen. When soils or road surfaces become saturated to a depth of 3 inches, activities should be limited or cease until conditions improve.

(11) Consider improving inadequately surfaced roads that are to be left open to public traffic during wet weather with gravel or pavement to minimize sediment production and maximize safety.

(12) Retain vegetation on cut slopes unless it poses a safety hazard or restricts maintenance activities. Roadside brushing of vegetation should be done in a way that prevents disturbance to root systems and visual intrusions (i.e., avoid using excavators for brushing).

(13) Retain adequate vegetation between roads and streams to filter runoff caused by roads.

(14) Avoid riparian/wetland areas where feasible; locate in these areas only if the roads do not interfere with the attainment of proper functioning conditions and riparian management objectives.

(15) Minimize the number of unimproved stream crossings. When a culvert or bridge is not feasible, locate drive-through (low water crossings) on stable rock portions of the drainage channel. Harden crossings with the addition of rock and gravel, if necessary. Use angular rock if available.

(16) Locate roads and limit activities of mechanized equipment within stream channels to minimize their influence on riparian areas. When stream crossing is necessary, design the approach and crossing perpendicular to the channel where practical. Locate the crossing where the channel is well defined, unobstructed, and straight.

(17) Avoid placing fill material in a floodplain unless the material is large enough to remain in place during flood events.

(18) Use drainage dips instead of culverts on roads where gradients would not present a safety issue. Locate drainage dips in such a way that water would not accumulate, or where outside berms prevent drainage from the roadway. Locate and design drainage dips immediately up grade of stream crossings and provide buffer areas and catchment basins to prevent sediment from entering the stream.

(19) Construct catchment basins, brush windrows, and culverts in a way to minimize sediment transport from road surfaces to stream channels. Install culverts in natural drainage channels in a way to conform with the natural streambed gradients to outlets that discharge onto rocky or hardened protected areas.

(20) Design and locate water crossing structures in natural drainage channels to accommodate adequate fish passage, provide for minimum impacts to water quality, and capable of handling a 100-year event for runoff and floodwaters.

(21) Use culverts that pass, at a minimum, a 50-year storm event and/or have a minimum diameter of 24 inches for permanent stream crossings and a minimum diameter of 18 inches for road cross drains.

(22) Replace undersized culverts and repair or replace damaged culverts and downspouts. Provide energy dissipaters at culvert outlets or drainage dips.

(23) Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain such as head walls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Culverts should be placed on solid ground to avoid road failures.

(24) Proper sized aggregate and riprap should be used during culvert construction. Place riprap at culvert entrance to streamline water flow and reduce erosion.

(25) Establish adapted vegetation on all cuts and fill immediately following road construction and maintenance.

(26) Remove berms from the down-slope side of roads, consistent with safety considerations.

(27) Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close abandoned roads to traffic. Physically obstruct the road with gates, large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.

(28) Abandon and rehabilitate roads no longer needed. Leave these roads in a condition that provides adequate drainage. Remove culverts.

(29) When plowing snow for winter use of roads, provide breaks in snow berms to allow for road drainage. Avoid plowing snow into streams. Plow snow only on existing roads.

(30) Maintenance should be performed to conserve existing surface material, retain the original crowned or out-sloped, self-draining cross sections, prevent or remove rutting berms (except those designed for slope protection), and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting back slopes.

(31) Do not disturb the toe of cut slopes while pulling ditches or grading roads. Avoid side casting road material into streams.

(32) Grade roads only as necessary. Maintain drain dips, water bars, road crown, in-sloping and out-sloping as appropriate, during road maintenance.

(33) Maintain roads in special management areas according to special management area guidance. Generally, retain roads within existing disturbed areas and side cast material away from the special management area.

(34) When landslides occur, save all soil and material usable for reclamation or stockpile for future reclamation needs. Avoid side casting of slide material where it can damage, overload, and saturate embankments, or flow into down-slope drainage courses. Reestablish vegetation as needed in areas where vegetation has been destroyed due to side casting.

(35) Strip and stockpile topsoil ahead of construction of new roads, if feasible. Reapply soil to cut and fill slopes prior to re-vegetation.

Surface-Disturbing Activities

(1) Special design and reclamation measures are recommended to protect scenic and natural landscape values. This may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, removal of surfacing material, imprinting, irrigation, use of low profile permanent facilities, and painting to minimize visual contrasts. Surface-disturbing activities may be moved to avoid sensitive areas or to reduce the visual effects of the proposal.

(2) Above ground facilities requiring painting should be designed to blend in with the surrounding environment.

(3) Surface disturbance should be restricted in areas that have special topographic (steep or broken terrain and/or benches) and soil concerns in order to reduce impacts caused by soil erosion and habitat disturbance. Projects should be designed to prevent increased sediment from being transported into drainages and to prevent fragmentation of areas determined to provide important wildlife habitat.

(4) In areas that allow for off-road travel, minimize the off-road impact of large vehicles. Use wide, flat-tread, balloon tires (especially on seismic thumper trucks) where possible. Use all-terrain vehicles rather than large vehicles where possible.

(5) Only excavate topsoil and subsoil where it is absolutely necessary. Consider brush-beating, mowing, and/or parking on vegetation for surface disturbing activities.

(6) Disturbed areas should be contoured to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with the surface disturbance. Disturbance should be contoured to match the original topography, where matching is defined as reproducing the original topography and eliminating form, line, and color caused by the disturbance as much as possible.

(7) Interim reclamation should be implemented concurrent with construction and site operations to the fullest extent possible.

(8) Fill material should be pushed into cut areas and up and over back-slopes. Depressions should not be left that would trap water or form ponds unless the authorized officer has determined that dips or depressions may be used to assist reclamation efforts and seed propagation.

(9) Reclaimed soil should be free of contaminants and have adequate depth, texture, and structure to provide for successful vegetation reclamation. Vegetation reclamation will be considered successful when healthy, mature perennials are established with a composition and density that closely approximates the surrounding vegetation, and the reclamation area is free of noxious weeds.

(10) If necessary after reclamation, fences should be constructed to exclude livestock for a minimum of at least two successful growing seasons.

(11) Oil and fuel for equipment and vehicles should be carefully handled and disposed of to prevent soil or water contamination.

(12) Develop a spill contingency plan, which identifies all actions to be taken in the event of a chemical spill including phone numbers for Federal, state, and local agencies which must be notified.

(13) Time activities to avoid wet periods.

Livestock Grazing Management

General. In order to achieve consistency throughout the RGNA, the Commission desires that all range activities, projects, plans, and vegetative land treatments be accomplished in a manner that achieves or exceeds the BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management. It is recommended that grazing management practices be developed through consultation with local experts, and include area specific objectives. The purpose of the objectives is to achieve standards and guidelines and progress toward multiple use objectives and sustainability of all resources. Adaptive management should be used when applying management practices. Some of the management practices used to achieve standards and guidelines are:

- Monitoring of the weather, vegetation, livestock, and wildlife,
- Adjusting the season of use,
- Deferment periods,
- Rest periods,
- Forage use standards,
- Changes in livestock numbers,
- Changes in the class of livestock,
- Herding of livestock,
- Low stress livestock handling techniques,
- Closing of areas to livestock use,
- The use of salt and supplements as incentives for livestock distribution (no salt or supplement should be placed closer than 0.25 mile from any water source.
- Construction of range improvements (i.e. fences, water developments, and pipelines) to facilitate grazing management and improve the resources.
- Other management practices should be evaluated and incorporated if they are determined beneficial to achieving resource objectives.
- New water developments for livestock and wildlife, and modifications to existing ones should provide for year-round access for wildlife use and for escape for small mammals and birds.

Riparian related: The Commission recommends the following “cardinal rules,” which are taken from TR 1737-20 Riparian Management, Grazing Management Processes and Strategies for Riparian-Wetland Areas 2006.

- Take advantage of seasonal livestock preference for uplands in grazing operations.
- Implement frequent (sometimes daily) supervision of grazing activities, so that adverse impacts (e.g., trampling damage and excessive utilization) can be foreseen and avoided.
- Don’t rely on a grazing system alone to improve conditions. Management tools and techniques work hand in hand with selected grazing systems.
- Document mistakes so they are not repeated.
- Use management successes to encourage proper management in the future and to promote good riparian area management elsewhere. Though each management situation is unique, there are still some general rules that can help ensure successful riparian area management: Adapt grazing management to the conditions, problems, potential, objectives, public concerns, and livestock management considerations on a specific site. Include all those willing to learn the details and contribute ideas or work for enhanced management throughout the planning process.
- Consider overall watershed goals and objectives and all important resource issues including watershed dynamics and issues associated with the receiving water or the stream reach that the grazing activities are located on (water quality and quantity, threatened and endangered species concerns).
- Manage grazing so there is sufficient vegetation growth and post grazing stubble on the banks and overflow zones to permit the stream to function naturally.
- Identify and implement alternatives to passive, continuous grazing. Employ rest or deferment from livestock grazing

Invasive/Noxious Weed Management

(1) All surface disturbing equipment should be inspected and cleaned prior to use. This is especially important on vehicles from out of state or if coming from a weed infested area.

(2) If fill dirt or gravel is utilized, the source should be noxious weed-free.

(3) Construction sites should be monitored for the life of the project for the presence of invasive/noxious weeds (includes maintenance and construction activities). If weeds are found, contact the local Weed District to determine the best method for the control of that particular weed species.

(4) It is recommended that all seed be certified noxious weed-free. Areas should be monitored to determine the success of re-vegetation, the presence of invasive/noxious weeds, and if necessary, be reseeded.

(5) Consider livestock quarantine, removal, or timing limitations in invasive/noxious weed- infested areas.

(6) It is recommended that all seed, hay, straw, mulch, or other vegetation material used for site stability, rehabilitation, or project facilitation be certified noxious weed-free of all reproductive parts. All baled feed, pelletized feed, and grain used to feed livestock should also be certified as free of noxious weed seed.

(7) It is recommended that all vehicles, including off-road and all-terrain, traveling in or out of weed-infested areas should clean their equipment before and after use.

Developed Recreation

(1) Construct recreation sites and provide appropriate sanitation facilities to minimize impacts to resource values, public health and safety, and minimize user conflicts of approved activities and access within an area as appropriate.

(2) Minimize impacts to resource values or to enhance a recreational setting and recreation experience. Harden sites and locations subject to prolonged/repetitive concentrated recreational uses with selective placement of gravel or other porous materials and allow for dust abatement, paving, and engineered road construction.

(3) Use public education and/or physical barriers (such as rocks, posts, vegetation) to direct or preclude uses and to minimize impacts to resource values and the quality of recreation experience.

(4) As appropriate, employ limitations on specific activities to avoid or correct adverse impacts to resource values, public safety issues, and/or conflicts between recreational uses.

(5) Employ land use ethics programs and techniques such as “Leave No Trace” and “Tread Lightly” programs. Use outreach efforts of such programs to lessen need to implement more

Wildlife and Riparian Habitat

1) It is recommended that all fences are constructed to BLM SLV Field Office fence specifications to mitigate impacts to wildlife.

2) Utilize and maintain wildlife escape ramps on all applicable water development projects, including existing watering facilities.

3) Construct all new water improvements so that they are located a minimum of 30 meters away from fences or other structures likely to pose a collision threat to bats.

4) Surface disturbance should be avoided within up to 0.5 mile of the outer edge of 100-year floodplains, playas, all artificial water developments (tanks, guzzlers, etc.), and riparian habitat (seeps, arroyos, etc.).

5) In all crucial calving, lambing, kidding, and fawning areas and wintering ranges, all surface disturbing activities, permanent or temporary, should be avoided during the appropriate time periods.

Visual Resources Management

All surface disturbing projects should include consideration for visual resource management objectives early in the planning process.

BMPs to address visual resource concerns have been incorporated into the above resource discussions, as appropriate. Examples of additional BMPs dealing with visual resource management considerations in oil and gas development can be found on the BLM website at www.blm.gov/bmp/. BMPs dealing with visual resource management considerations in general are available at www.blm.gov/nstc/VRM/destech.

Appendix D – Process, Public Comments and Responses

Process

Although the U.S. Congress established the Rio Grande Natural Area (RGNA) in 2006, the process to establish a formal Commission did not start until June 11, 2010. Then, it took approximately another year for Commission members to be chosen and formally approved. The first meeting of the Commission took place on August 5, 2011. Many of the initial meetings were focused on learning about the RGNA, including field trips, and the requirements of the ACT itself. Since the first Commission meeting, the Commission has met quarterly. Additional information regarding the Commission meetings can be found on the BLM website at:

http://www.blm.gov/co/st/en/fo/slvfo/rio_grande_natural/rgna_commission_meeting.html.

Recognizing the need for public involvement, the Rio Grande Water Conservation District mailed out approximately 500 letters to all landowners within the RGNA boundary in early 2013. The purpose of the letter was to provide information on the RGNA, explain the purpose of the Commission, and to ask for feedback regarding issues and concerns. Only four letters were returned due to bad addresses. From early 2013 through mid 2013, only three written responses were received from landowners, along with three telephone calls.

Upon completing a draft plan in early May of 2015, the Rio Grande Water Conservation District sent out postcards to over 400 landowners, requesting that landowners review the draft management plan and provide comments. The comment period started on May 11th and ran for 30 days.

Additionally, three public meetings were held during May of 2015 to seek public comments on the draft management plan:

- May 12th at the San Luis Valley Water Conservation District in Alamosa, Colorado. Five members of the public attended.
- May 13th at the Costilla County Public Health Agency in San Luis, Colorado. Seven members of the public attended, as well as two Congressional Representatives.
- May 14th at the Antonito Senior Center in Antonito, Colorado. Three members of the public attended, as well as one Congressional Representative.

The commission continued to accept comments on the updated draft management plan until August 3rd, 2015.

Public Comments and Responses

Phone Calls

Edward Horne, Cambridge MA

Concerned about being able to build on his land but is supportive of conservation measures.

- Responded back that the Act doesn't prohibit any action on private land and the Plan is just a guide unless a landowner agrees in writing to be bound by it.

Wife of Donald Mosely, El Paso TX, 915-240-5481

General questions about the Act and plan, but no comments. Stated that they are willing to sell the land.

- Explained the history of the Act and the formation of the Commission, which was tasked with drafting the Plan.

Donna Richardson

General questions about Act, plan, and concerns about building restrictions.

- Didn't know where their parcel was, trespassed on someone else's land thinking it was theirs.
- Responded back that the Act doesn't prohibit any action on private land and the Plan is just a guide unless a landowner agrees in writing to be bound by it. Recommended she visit the County Assessor site online to find the exact location of her parcel.

John Alarcon, CA, 209-847-2301

General questions about Act and plan.

- Explained the history of the Act and the formation of the Commission, which was tasked with drafting the Plan.

Donna Tugwell, 903-721-3540

Concerned about "taking more land" and federal governments involvement.

- Responded back that the Act doesn't prohibit any action on private land and the Plan is just a guide unless a landowner agrees in writing to be bound by it. Further explained the history of the Act (especially the desire to limit Federal control) and the formation of the Commission, which was tasked with drafting the plan. Also, distinguished this plan and the Commission from the BLM, to reassure her.

Robert James, western NM, 505-870-2047

General questions about the Act and plan. Stated that he is supportive of conservation measures.

- Explained the history of the Act and the formation of the Commission, which was tasked with drafting the Plan.

Barbra Bolte, 903-389-4823

General questions about the Act and plan.

- Explained the history of the Act and the formation of the Commission, which was tasked with drafting the Plan.

Jim McCord, TX, 325-977-0013

Explained the overall process to him. He wants to see the riparian area fenced and preserved, and also the horses removed. He stated that he might be interested in selling.

- Explained the history of the Act and the formation of the Commission, which was tasked with drafting the Plan.

John Boggs, Denver 303-789-3040

Cattle do more damage to the river area. He is very pro-conservation and is willing to help out if there is some way for him to be of assistance. He stated that if money is going to be spent, we might as well do it right the first time and fence from the 142 Bridge down to the canyon, leaving watering areas. He stated that he is concerned about BLM taking more land. He is also concerned about theft, as he's had about \$10,000 worth of theft/property damage.

- Gave a brief explanation on the boundary dispute.

Gerald Reed, 208-507-1211

Explained the history to him. Concerned about what is in the plan and what it has to do with water. Is interested in selling.

- Landowner doesn't have access to internet and requested a plan be mailed to him.

Written Comments (verbatim)

Ben Doon, ben.doon@costillacounty-co.gov

Chief Administrative Officer, Costilla County Board of Commissions

Thank you for the public meeting in San Luis yesterday and the opportunity to comment on the draft Management Plan. My two comments are as follows. On page 38, the second to last bullet before 5.2.2, it states, "Encourage Costilla County to consider the objectives of this plan in their land use and building codes." Costilla County does not have building codes, only a land use code. Then, regarding the Little Box/Mortensen Dam Diversion Structure depicted on page 34, I am hoping the commission could make some recommendations to the county regarding historical interpretation of the dam remnants and diversion structures as well as recommendations to clean-up the graffiti on the diversion structure, possibly in the scenic resources section.

Response

- Changes have been made to the second to the last bullet before 5.2.2 to reflect that Costilla County does not have building codes, but only a land use code.
- Under 5.2.3, there is a new recommendation that states "Recommend that an interpretive site be built and maintained for the Little Box Dam Diversion Structure. Additionally, maintain the visual quality of the actual diversion structure by painting when necessary to cover graffiti."

Clay Hudson, blackrockranchco@aol.com

Private landowner

Clay asked that the language below be inserted into the boundary dispute section:

Boundary Dispute Over the Western Boundary of the Sangre de Cristo Grant:
The Rio Grande as a Boundary

When a river is called for in a petition for a land grant, it is the river and not the bank of the river that is the boundary. The western boundary of the Sangre de Cristo grant was (in part) the Rio Grande at its junction with the Rio Costilla. The petition for the Sangre de Cristo grant notes that the primary purpose of the grant was "to encourage the agriculture of the country," and praises the virtues of the land including "fertile lands for cultivation, and abundance of pasture and water." The statement by the grant petitioners that they would use the land for irrigated farming and their call for the Rio Grande as a boundary shows their intention that the river itself and not the bank of the river, as the BLM contends, form the western boundary of the grant. If the grantees had wanted the eastern bank as the boundary they would have said so — but to do so would mean they would not have access to the river, either for irrigating their crops or for watering their animals. There is no mention of the bank of the Rio Grande in the grant petition. The intention of the Sangre de Cristo grant petitioners that they have access to the Rio Grande "for cultivation" of their land, and for watering their animals meant that they intended the river and not the bank to be the boundary.

When the grant was surveyed by the government in 1875 and 1877 the Rio Grande was surveyed as the western boundary — not the bank of the Rio Grande. Deputy Surveyor Kellogg established a meander line along the east bank of the Rio Grande. Every land grant with a river for a boundary uses a meander line to define the location of the river as the most practical means of surveying the river, and in no case is the meander line itself considered to be the boundary. A meander line is not a boundary, but the body of water which is meandered is the true boundary. The *BLM Manual*

of *Surveying Instructions* at pages 93-94 states: "Numerous decisions in the United States Supreme Court assert the principle that meander lines are not boundaries defining the area of ownership of land adjacent to the water ... the stream or other body of water ... is the boundary."

The BLM contends that because a later BLM survey on the west side of the Rio Grande ran to the east bank of the Rio Grande instead of the center of the river, the second survey established the east bank as the boundary of the Sangre de Cristo grant. This second survey was in error because the Kellogg survey had established the Rio Grande as the boundary of the Sangre de Cristo grant, not the east bank of the river and that land was patented to the grantees. The two surveys are in conflict, one establishing the river as the boundary, the other the east bank. In a case dealing with the Mora land grant a second survey overlapped the Mora grant boundary by three miles and the government sought to establish the second survey. The U.S. Supreme Court held that the first survey of the Mora grant must prevail: "when [the government] has once made and approved a survey of government lands, and has disposed of them ... a resurvey by the United States does not affect the rights of the patentee." (*U.S. v State Investment*, 264 U.S. 206 (1924)). This is the rule that would apply here. The Rio Grande and not the bank of the river is the western boundary of the Sangre de Cristo grant.

Response

- During the Commission meeting on June 17, 2015, Dave Robbins, legal council for the Rio Grande Water Conservation District, gave a presentation on the overall boundary dispute and the legal history. He recommended, and the Commission agreed, to use the language provided by Dave Robbins for the draft plan.

Tom and Deborah Gordon, Deborahgordon127@yahoo.com
Private landowner, Cadyville, New York

At this time, we have no intention of doing anything with our land, but in the future, what restriction will we have on our land? Where we live there is an agency that controls a very large area of our Adirondack Mountains and anyone who lives within that area have so many restrictions on what they can do with their land that a lot of people leave and then have difficulty selling their homes. Will this be something similar?

Response

- The Rio Grande Natural Area Management Plan is just a guide unless a landowner agrees in writing to be bound by it. It is also important to recognize that in terms of other types of restrictions, the Costilla County Land Use Code controls aspects such as building, livestock use, etc. You can find the Costilla County Land Use Code by visiting <https://www.colorado.gov/pacific/costillacounty/planning-zoning-resources>

Ed, magnumlaw@me.com
Private landowner

Here there, Look over the web sight , The pictures look nice, I don,t think you should allow foreign investors. In on Colo. Natural areas there intention are not in behalf of the USA ,Please go with this request , there to much going on in the world, Don,t give them a way or there will be trouble down the road. Thanks again, Ed

Response

- Comment is outside the scope of this project.

Bruce T. Whitehead and Becca Conrad-Whitehead, becca@frontier.net

Private landowner

Hello –

As landowners in Costilla County within the proposed Rio Grande Natural Area Management Plan boundaries we would assert that all actions within the plan must continue to allow landowners to maintain and protect their private property and water rights. We would like to continue to be apprised of meetings and will continue to review the plan in preparation for the comment period for the final management plan.

Response

- The Rio Grande Natural Area Management Plan is just a guide unless a landowner agrees in writing to be bound by it. It is also important to recognize that in terms of other types of restrictions, the Costilla County Land Use Code controls aspects such as building, livestock use, etc. You can find the Costilla County Land Use Code by visiting <https://www.colorado.gov/pacific/costillacounty/planning-zoning-resources>
- A new draft of the plan will be out in mid-July on the BLM website (http://www.blm.gov/co/st/en/fo/slvfo/rio_grande_natural.html) and will be available for review. Comments are being accepted until August 3, 2015. The next Commission meeting is scheduled for September 16, 2015.

Loretta Mitson, mitson53@yahoo.com

Private citizen

Hi folks, I met with Molly and Brian, the BLM archaeologist, about some revisions regarding the cultural resource component of the draft management plan. I hope that she can make the appropriate corrections.

I would also like to see some more specific plans for interpretive signage at the Lobatos Bridge, as it is a historic water flow monitoring site for the Rio Grande Compact. This is a fairly well travelled road and lends itself to being a good place to educate the public about the Rio Grande Compact, its water, and the control thereof. Also, the bridge is significant, so a bit about the history of that might be appropriate. Also, I am ending this request with my "essay" about the de Vargas crossing. I would like to see the Commission advocate for the issues in my statement about that. Thanks for all your hard work and for considering my comments! Loretta Mitson

The Don Diego de Vargas entrada into the San Luis Valley in 1694 was pivotal to the success of the Hispanic repatriation of Santa Fe and much of the Southwest, including southern Colorado, after the Pueblo Revolt of 1680. The site of his successful crossing of the Rio Grande and the associated sites along his trail have been discovered through the research of the late Ruth Marie Colville of Del Norte, Colorado. Had de Vargas not been successful on his mission north from Santa Fe through the south end of the San Luis Valley, the history of the entire region could have been different. A mere 12 years later, in 1706, the French were exploring Colorado from their established bases in the Mississippi region. The de Vargas crossing site is perhaps the most important historic site in the entire San Luis Valley.

The de Vargas crossing location has significance in Native American prehistory as well in that it

was used as a trade and migration route. It became a ferry crossing in 1861 for early Hispanic settlers, prior to the building of the Lobatos Bridge in the early 1890's.

This site, which is partly on BLM property and partly on private, has been subjected to pot hunting and artifact collection in recent years. In June, 2015, new vandalism was observed on the petroglyph/pictograph panel on the east side (private property) of the site. Historical features (on the BLM side), dating from the 1800's, have also disappeared.

This is but one example of the San Luis Valley's cultural and historical resources which have suffered from lack of funding on the part of federal and state agencies to identify, survey, document, interpret, and protect them.

I would like to propose that a land exchange, perhaps for a piece of Forest Service or BLM land, be offered to the property owner in order to bring the entire site under the control of the Department of the Interior. Perhaps the Archaeological Conservancy could be enlisted to acquire this property. This will enable us to preserve it for generations to come and to interpret it in the context of the rich cultural history that the San Luis Valley has to offer.

Thanks for your consideration of this issue!

Response

- Under 5.2.3, there is a new recommendation that states" Recommend that an interpretive site be built and maintained at the Lobatos Bridge that explains the Rio Grande Compact, the bridge, and the history of the previous town site."
- After much discussion during the Commission meeting on June 17, 2015, the Commission decided that they do not feel it is in the best interest of the de Vargas crossing site to be part of a land exchange. This decision was based on the fact that the BLM, nor the Forest Service, will be able to necessarily provide more protection for the site than what is available currently.

Rolf Werner, rpwerner@aol.com, 303-916-6253

Private landowner

Gentlemen:

I received this little postcard, while I was away in Europe. I have had no notice of the ACT before this time, therefore I could not attend this meeting due to the hastily put together time line. While I applaud your efforts to keep the natural beauty of the land, I feel that more land owner notice would have been appropriate. I am leery about this ACT, because I don't know how it will impact me. Will I still be able to build on my land or will I be denied a building permit? Can I put in a well for house drinking water? Is my fencing going to be ask to be taken down? These are the questions that I have. You can understand my concern as the BLM took the land from the center of the river to the bank, I am a bit untrusting at this point. I am planning to build and retire from teaching to this land in 6 years and don't want to have that plan thwarted.

The plan appears to be in the best interest of the land and the people that love and use it, but if it is at the expense of those of us that love it so much that we invested in the land, then I am not going to support your efforts. Keeping land away from people, just to keep it natural is a waste of our resources and would no longer need land management. I would like to hear from you, at your convenience, addressing my concerns.

Response

- The Rio Grande Water Conservation District first notified all landowners within the Rio Grande Natural Area in the spring of 2013 that the Act had been passed and that the Commission would be working on a draft plan. Over 500 letters were sent out and only about 5 were returned due to wrong addresses.
- The Rio Grande Natural Area Management Plan is just a guide unless a landowner agrees in writing to be bound by it. It is also important to recognize that in terms of other types of restrictions, the Costilla County Land Use Code controls aspects such as building, livestock use, etc. You can find the Costilla County Land Use Code by visiting <https://www.colorado.gov/pacific/costillacounty/planning-zoning-resources>
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