

Environmental Assessment and Finding of No Significant Impact

Bureau of Reclamation Federal Rio Grande Project New Mexico-Texas Operating Procedures, Dona Ana, Sierra, and Socorro Counties, New Mexico and El Paso County, Texas



U.S. Department of the Interior Bureau of Reclamation Albuquerque Area Office Albuquerque, New Mexico

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to mange, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Environmental Assessment and Finding of No Significant Impact for the Bureau of Reclamation Federal Rio Grande Project New Mexico-Texas Operating Procedures, Dona Ana, Sierra, and Socorro Counties, New Mexico and El Paso County, Texas

Proposed agency action:	Implement adjusted operating procedures for the Bureau of Reclamation's Federal Rio Grande Project.
Type of statement:	Environmental Assessment
Lead agency:	Bureau of Reclamation, Upper Colorado Region, Albuquerque Area Office
Cooperating agencies:	None
For further information:	Mr. Filiberto Cortez Bureau of Reclamation, El Paso Field Division 10737 Gateway West, Suite 350 El Paso, TX 78935 (915) 534-6300 fcortez@uc.usbr.gov
Date of Distribution:	June 11, 2007

Finding of No Significant Impact

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the U.S. Bureau of Reclamation, Albuquerque Area Office has conducted an environmental assessment of a proposed action to finalize adjusted Operating Procedures for the Rio Grande Project. Reclamation is responsible for managing the Rio Grande Project and is the lead agency for the purposes of compliance with NEPA for this proposed action.

Alternatives

The environmental assessment analyzed the No Action Alternative and the Proposed Action of adjusting the Operating Procedures for the Rio Grande Project.

Mitigation Measures

Mitigation integral to both alternatives is to increase and improve monitoring of all water deliveries and return flows and reduce spills of Rio Grande Project water. Reclamation's Water 2025 Challenge Grant Program funding has been provided to the Elephant Butte Irrigation District (EBID) in New Mexico and the City of El Paso, Texas to install additional flow monitoring at various locations within the Rio Grande Project irrigation system. The City of Las Cruces, New Mexico has also been provided Water 2025 Challenge Grant Program funding to improve water control by the use of a re-regulating pond. In addition the El Paso County Water Improvement District No. 1 (EPCWID) has also installed an additional measurement station on the Rio Grande near the New Mexico-Texas state line.

Decision and Finding of No Significant Impact

I have reviewed the attached environmental assessment including the explanation and resolution of any potentially significant environmental effects. My decision was made after carefully weighing economic, social, and technical considerations, as well as the potentially significant environmental effects analyzed in the environmental assessment, and in consideration of comments and concerns of agencies, organizations, tribes, and individuals. I have determined the Proposed Action Alternative described in the assessment is essentially a water delivery accounting change which will not cause a deviation from historic parameters of water in storage or in the Rio Grande. Because the adjustment of Operating Procedures is a continuation of ongoing operations which will cause no change in the amount of water released or stored outside the range of historic operations, the Proposed Action Alternative would not have any significant effect on the human environment and an environmental impact statement is not required. It is my decision to implement the Proposed Action Alternative.

Evaluation of Environmental Issues

I have considered the following factors in determining that the effects of the proposed action would not significantly impact the human environment.

1. The action would not have a significant adverse effect on any environmental resource; the only effects would be beneficial.

2. The action would not have a significant adverse effect on public health or safety. No minority or low income community would be disproportionately affected by the proposed action.

3. There are no unique characteristics (park lands, prime farmlands, wild and scenic rivers) that would be adversely affected by the action.

4. Effects of the action on the quality of the human environment are not highly controversial.

5. There is no uncertainty or unknown risk because the Operating Procedures merely formalize how Reclamation has operated the Rio Grande Project over time. The procedures for accounting of the waters available to the Project and the Project water users will be adjusted to account for water allotted to each of the irrigation districts but not utilized by said districts during the water year. Overall use of water by the Project will not change.

6. The action will not establish a precedent because this action is the continuation of a process of adjustments to the water accounting procedures which have been made as the Project has evolved.

7. There are no cumulative adverse effects of the action.

8. The action would not adversely affect historic properties.

9. The action would not adversely affect threatened or endangered species or critical habitat.

10. The action violates no federal, state, local, or tribal law, regulation, or policy.

Approved:

Area Manager Albuquerque Area Office

6/11/2007

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A Rio Grande Operating Procedures

Introduction

This document is an environmental assessment for adjusting Operating Procedures for the continuing operation of the Rio Grande Project (Figure 1). The Operating Procedures would govern Rio Grande Project water allocation, storage, delivery, and accounting for the next five years.

Background

The Rio Grande Project was authorized by Act of Congress on February 25, 1905, 33 Stat. 814, pursuant to the Reclamation Act of 1902, 32 Stat. 390. The Rio Grande Project furnishes irrigation water for 178,000 acres of land and electric power for communities and industry in Dona Ana, Sierra, and Socorro counties, New Mexico, and in El Paso County, Texas. Drainage water from project lands provides a supplemental supply for 18,330 acres in Hudspeth County, Texas.

Project lands are located in the semi-arid Rio Grande Valley in south-central New Mexico and west Texas. Some 90,640 acres are located within the Elephant Butte Irrigation District (EBID), a political subdivision of the State of New Mexico; 69,010 acres are within the El Paso County Water Improvement District No. 1 (EPCWID), a political subdivision of the State of Texas (collectively called the Districts). The Districts use Rio Grande Project water to irrigate a wide variety of crops, including alfalfa, cotton, onions, pecans, peppers, and wheat.

Reclamation also operates the Rio Grande Project to deliver water to Mexico pursuant to the Convention of 1906. Under the Convention, 60,000 acre-feet per year are delivered to Mexico under normal years. During severe droughts, less than this amount may be delivered.

Project facilities include Elephant Butte Dam and Reservoir, Caballo Dam and Reservoir, a power generating plant, and six diversion dams (Percha, Leasburg, Mesilla, American, International, and Riverside). The United States of America owns and Reclamation controls and operates these dams and reservoirs. The United States Section of the International Boundary and Water Commission controls and operates the bed and banks of the Rio Grande on the United States side of the river.

The Rio Grande Project also includes 141 miles of canals, 462 miles of laterals, and 457 miles of drains. Ownership of these facilities has been transferred to EBID and EPCWID. Operation and maintenance of these facilities and the irrigation system in the New Mexico portion of the Rio Grande Project is directed by the EBID; EPCWID directs operations and maintenance in the Texas portion.

Reclamation entered into Contracts No. 07-54-X0904 of March 14, 1980 with EBID and No. 9-07 53-X0554 of February 15, 1979 with EPCWID, for the Transfer of the Operation and Maintenance of Specific Project Works. Both contracts stipulate in Article 6.a that the "United States will make allocation of available stored project water...", and Article 6.d that "A detailed operational plan will be concluded between the United States and the District setting forth procedures for water delivery and accounting." In lieu of the agreed to operating plan which the Districts have never signed and which was never concluded, Reclamation imposed necessary criteria for the allocation, delivery, and accounting of Project water.

Reclamation's El Paso Field Division calculates and declares the allocation of Project water supply to EBID, EPCWID, and Mexico on the basis of water legally available in storage for release and on historical return flows to the Rio Grande between Caballo Dam in New Mexico and the diversion into the American Canal at the International Dam near El Paso, Texas.

Since 1980, the water allocation has been made to EBID and EPCWID on the basis of their respective acreage relative to the total authorized Rio Grande Project acreage. For EBID, the amount of water allocated and delivered is measured at the Del Rio lateral, the Eastside and Westside canal heading, the Leasburg canal heading, the Arrey canal heading metering stations and various pumps in the Rio Grande. For EPCWID, the water allocation and deliveries are measured at the Three Saints, La Union East, and La Union West laterals metering stations where they cross the New Mexico-Texas state line, at the Franklin canal heading, and at the Riverside canal heading metering stations.

Each year, beginning in December of the previous year, Reclamation issues a Rio Grande Project Water Supply Initial Allocation. In years of less than full allocation conditions, the allocation is updated as additional water available for release reaches Project storage. The allocation describes:

- total water in storage in Elephant Butte and Caballo reservoirs,
- Project storage water available for release for Project purposes,
- actual initial allocation to Mexico, EBID, and EPCWID in acre-feet per annum.

Reclamation's allocation is based on water actually available in Project reservoirs and is not based on predictions of future water availability from spring snow melt or other sources (rainstorms) within the watershed. Should more water enter Elephant Butte and Caballo reservoirs throughout the spring and summer, Reclamation may adjust the districts' diversion allocation accounts upward. Water is not allocated in storage. The Districts have historically been allocated an amount of water derived from both storage water and return flows to the river. The allocation is delivered as requested by the Districts and accounted at the respective gauge stations at the canal headings on the Rio Grande and at the state line metering stations. The actual allocation at the delivery points is calculated from an empirical formula that relates the amount of water released from storage to the amount of water delivered to the head gates downstream. This calculation is based on actual data derived from over 28 years of observation and record keeping.

Historically, the range of storage in the reservoirs has been as low as 32,000 acrefeet and has exceeded 2,300,000 acre-feet, so high that the reservoirs spilled (Figure 2). The allocation to land has been as low as half an acre-foot per acre of Project land (a release of around 244,000 acre-feet) and as high as four acre-feet per acre (a release of over a million acre-feet). The range of releases over the last three decades has been from 261,000 acre-feet to over a million acre-feet per year (Table 1).

The volume of water in the river is dependant upon the amount of water released from the reservoirs and the amount of water in the soils of the river bed, farmlands, canals, drains, and laterals, which affects the efficiency of water deliveries (the amount of water lost through seepage and evaporation to the surrounding soil), and the return flows from the application of water to the land. Consequently, the amount of water released, combined with soil conditions and temperature, has resulted in a wide range of water levels in the river.

Further, the condition of the soils and ambient temperature plus ground water levels when combined with return flows affects the amount of water that must be released to make the required deliveries. The amount of water necessary for delivery to the canal headings (diversion dams, and under earlier operations, the farm turn-outs) as stated above has been calculated using actual data taken over a span of 28 years. It is not anticipated that the adjusted procedures will result in an appreciable change in the amount of water released from storage, the resulting amounts of water in the river or delivered to the districts. These amounts will remain within the historical range.

Purpose and Need for Action

Over the years, the Districts have never signed an operating agreement, plan, or criteria, but have acquiesced and cooperated with Reclamation's procedures on a year to year basis. This latest revision of the procedures attempts to accommodate changes proposed and negotiated among the parties. A particular concern among the parties is that during periods of drought, EBID has the ability to supplement reduced Project deliveries by the use of wells. The EPCWID does not have a similar opportunity because of the poor quality of the ground water within the

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39,677 02/27 39,677 02/27 39,677 02/27 60,065 02/27 60,065 02/27 60,065 02/27 34,847 02/26 02/27 02/26 60,077 03/01 60,050 01/16 60,050 01/16 60,052 01/16 790,000 60,053 790,000 60,053 750,000 60,053 750,000 60,257 750,000 60,257 750,000 60,257 902,000 60,257 902,000 60,276 902,000 58,586 902,000 68,756 902,000 68,765 902,000 61,935 902,000 63,854 902,000 63,854 902,000 63,854 921,841 59,242 931,841 59,242		1.00 0.25 3.00 3.00 3.00 3.00	861,894 54,256 831,291 1,133,599 812,686 1,003,319 419,098 378,144 159,213 656,638	1,747,700 2,322,200 2,336,900 2,383,900 2,151,900 1,801,000 1,509,660	1981 1982 1983 1984 1985 1985 1985 1987 1988 1988 1988 1989 1990
39,677 02/27 39,677 02/27 39,677 02/27 60,057 02/27 60,050 02/27 34,847 02/26 16,077 03/01 60,050 03/02 60,052 01/24 60,052 01/24 60,172 03/03 790,000 60,052 790,000 60,053 790,000 60,252 790,000 60,252 790,000 60,252 790,000 60,252 790,000 60,257 790,000 60,257 790,000 60,527 790,000 59,250 902,000 59,586 902,000 59,586 902,000 60,627 902,000 59,586 902,000 65,866 902,000 65,866 902,000 65,866 902,000 65,866 902,000 58,853 902,0		1.50 0.25 3.00 3.00 3.00 3.00	861,894 54,256 920,545 831,291 1,133,599 812,686 1,003,319 412,686 378,149 378,149	1,747,700 2,322,200 2,336,900 2,383,900 2,151,900 1,801,000	1981 1982 1983 1984 1985 1985 1985 1987 1988 1989
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39,677 02/27 39,677 02/27 39,677 02/27 60,065 02/27 60,066 02/27 60,066 02/27 60,066 02/27 60,066 03/01 60,052 01/24 60,052 01/24 60,052 01/24 60,052 01/24 61,172 01/16 790,000 60,055 790,000 60,055 790,000 60,262 790,000 60,262 790,000 60,262 790,000 60,262 790,000 60,262 790,000 60,262 790,000 60,276 902,000 60,276 902,000 60,276 902,000 61,335 902,000 61,335 902,000 61,335 902,000 61,335 902,000 61,335		1.00 0.25 3.00 3.00 3.00 3.00 3.00	861,894 54,256 548,573 920,545 831,291 1,133,599 812,66 1,003,319 419,098	1,747,700 2,322,200 2,336,900 2,383,900	1981 1982 1983 1984 1985 1985 1985 1987 1988
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250,027 02/27 39,677 02/27 39,677 02/27 60,065 02/27 60,065 02/27 16,077 03/01 60,060 03/02 60,052 01/12 60,052 01/12 60,052 01/12 60,055 03/10 790,000 60,055 790,000 60,055 790,000 60,055 790,000 60,055 60,282 03/10 790,000 60,282 790,000 60,282 902,000 59,257 902,000 59,257 902,000 59,276 902,000 59,276		1.00 0.25 3.00 3.00 3.00 3.00 3.00 3.00	861,894 54,256 548,573 920,545 831,291 1,133,599	1,747,700	1981 1982 1983 1984 1985
39,677 02/27 39,677 02/27 39,677 02/27 60,057 02/27 60,057 02/27 60,056 02/27 16,077 03/01 16,077 03/02 60,056 03/02 60,052 01/24 60,052 01/24 60,052 01/24 60,052 01/24 790,000 60,053 790,000 60,053 790,000 60,262 790,000 60,252 790,000 60,252 790,000 60,252 790,000 60,252 790,000 60,252 790,000 60,252 790,000 53,588 902,000 58,588		1.00 0.25 3.00 3.00 3.00 3.00	861,894 54,256 548,573 920,545 831,291		1981 1982 1983 1984
39,677 02/27 39,677 02/27 39,677 02/27 60,065 02/27 60,065 02/27 34,847 02/26 16,077 03/01 60,065 03/02 60,065 03/02 60,065 03/02 60,052 01/16 60,052 01/16 790,000 60,055 790,000 60,053 790,000 60,053 790,000 60,053 790,000 60,052 790,000 60,053 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 790,000 60,052 60,0221 02/03		1.50 0.25 3.00 3.00 3.00	861,894 54,256 548,573 920,545	1,424,200	1981 1982 1983
39,677 02/27 39,677 02/27 39,677 02/27 59,884 02/27 60,067 02/27 34,947 02/28 34,947 02/26 16,077 03/01 60,060 03/02 60,052 01/24 60,052 01/24 60,052 01/24 60,055 03/03 790,000 60,055 03/10 790,000 60,055 03/10 790,000 60,262 02/127 790,000 60,262 02/127 790,000 60,262 02/127 790,000 60,262 02/127		2.50 0.25 0.67 3.00 3.00	861,894 54,256 548,573	1,070,130	1981 1982
39,677 02/27 39,677 02/27 93,884 02/27 60,055 02/27 80,057 02/27 90,000 34,947 02/26 16,077 03/01 60,050 03/02 60,052 01/24 60,052 01/24 60,052 01/24 60,052 01/24 60,052 01/24 790,000 60,053 790,000 60,055 60,055 03/10 750,550 60,252 60,252 02/17		2.50 0.25 0.67 3.00 3.00	861,894 54,256	878,660	1981
39,677 02/27 39,677 02/27 60,065 02/27 93,844 02/27 94,847 02/28 94,847 02/26 94,847 02/26 94,847 02/26 94,847 02/26 94,847 02/26 95,000 60,050 96,052 01/124 90,000 60,052 14,903 03/03 790,000 60,053 90,033 01/17		2.50 1.00 0.25 3.00	861,894	1,339,860	
25/27 02/27 39/677 02/27 59/884 02/27 60/07 02/27 34/847 02/28 60/07 03/01 60/052 01/24 60/172 03/01 60/052 01/16 24/803 03/10 60/052 01/16 24/803 03/10	3.00 3.00 1.25 0.75 3.00	2.50 1.00 0.25 0.67		1,080,400	1980
59,884 02/27 59,884 02/27 60,052 02/27 60,052 02/28 34,847 02/26 16,077 03/01 60,050 03/02 60,052 01/24 60,052 01/24 60,172 01/16 24,824 03/03 14,903 03/10	3.00 3.00 1.25 0.75	2.50 1.00 0.25	1,148,880	328,690	1979
02/27 02/27 02/23 02/28 02/28 02/28 03/01 03/09 03/02 03/02 03/02 01/24 01/16 01/16	3.00 3.00 1.25	1.00	248,610	268,220	1978
02/27 02/27 02/27 02/27 02/28 02/26 03/01 03/09 03/09 03/09 03/09 03/09 03/09 03/09 03/09 03/09 03/09 03/09 03/09	3.00	2.50	43,374	482,460	1977
02/27 02/27 02/27 02/28 02/28 02/26 03/01 03/02 03/02 03/02 03/02	3.00	0	204,260	762,230	1976
02/27 02/27 02/23 02/28 02/28 02/26 03/09 03/02	3.00	1.00	617,850	507,700	1975
02/27 02/27 02/27 02/23 02/28 02/01 03/09		3.00	95,430	915,650	1974
02/27 02/27 02/27 02/27 02/26 02/26 03/01	3.00	1.00	914,090	457,960	1973
02/27 02/27 02/27 02/23 02/26	0.80	0.60	77,630	283,380	1972
02/27 02/27 02/27 02/23	1.75	1.50	112,837	435,640	1971
02/27	3.00	2.00	257,960	614,620	1970
02/27	3.00	1.25	358,710	466,970	1969
19190	2.00	1.00	238,560	386,860	1968
76/60	1.50	1.25	74,090	454,710	1967
03/05	2.50	1.75	328,380	627,430	1966
03/20	1.85	0.17	598,290	172.340	1965
03/15	0.33	0.25	67.930	194,790	1964
39,693 03/05 517,172	2.00	1 85	116 765	513 170	1062
03/05	3.25	1.75	448 250	486 570	1080
03/10	2.45	1 25	10,000	10,000	1900
03/02	3.25	2 25	410 000	712 550	1909
03/02	3.50	3 00	72 500	1 127,000	1900
60,050 03/01 737,125	4.00	1 75	000,000	057 510	1907
	1 17	0.00	09,000	272,780	1956
03/18	0.30	12.0	68,920	169,850	1955
8 185 03/20 219 157	0.50	0.42	76,720	184,460	1954
00/00	1.90	1.00	143,170	468,600	1953
03/10	2.50	0.21	832,160	103,920	1952
469,450 469,800 03/20 543,975	1.75	1.00	17,877	452,730	1951
*	h				
(acre-feet)	cre)	(acre-foot/acre)	(acre-feet)	(acre-feet)	YEAR
IS HEADINGS HEADING CABALLO F		LANDS	(Mar-Jul)	STORAGE	
MADRE FROM	TO PROJECT C		SPRING	GRANDE	
ALLOTMENT	-	INITIAL	MARCIAL	TOTAL RIO	
FINAL MEXICO INITIAL C/	_	2-10-00-000	SAN	EO FEB.	

bold number means full irrigation supply for Rio Grande Project water users. derived from International Boundary & Water Commission (IBWC) - U. S. Section, Yearly Flow Data Publications

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Table 1. Yearly allocations for the Rio Grande Project, 1951 to 2006.

EPCWID boundaries (Figure 1). The proposed ability to carry-over diversion allocation will help the Districts to bank or reserve water for use during droughts.

Reclamation proposes adjustments to the Operating Procedures which will hopefully conclude with an operating agreement among all the parties. Implementation of the Operating Procedures (Appendix A) for the next five years is essentially an accounting change which would accomplish the following:

- Water allocations to Project water users would be made using a EBID proposed method which provides EPCWID and Mexico water deliveries at their river headings based on historical river performance and decreases EBID's allotment to make up for any losses in performance of the Rio Grande which may have been caused by changes in hydrologic conditions in New Mexico. This an accounting change which does not impact the overall amount of water utilized by the Rio Grande Project
- Each district may carry-over in Project storage a maximum of 20 percent of the current year's unused final allocation in a given year and will be able to accumulate and maintain a carry-over water account of a maximum amount of 60 percent of a full allocation.
- In accordance with Rio Grande Compact provisions, Reclamation would utilize an average release from Project storage of 790,000 acre feet, when available, as the amount needed to provide a full allocation to EBID, EPCWID, and Mexico at their respective accounting points.
- The allocation for Mexico would continue to be calculated using the total amount of water available for release from storage, including any carry-over water.
- Monitoring of deliveries to all water users and flows in the Rio Grande would be improved and closely coordinated with the Districts.
- The effects of the City of El Paso's Canutillo well field would continue to be monitored.

The Operating Procedures would be in effect for five years and reviewed yearly and maybe modified if agreed to by the parties. However it is anticipated that once the Operating Procedures are in effect, they will serve as a platform from which a final operating agreement will be able to be derived and signed by all the parties.

Related Projects and Actions

This environmental assessment is tiered from several previous NEPA analyses including the United States Section of the International Boundary and Water Commission's (USIBWC 2004a) *Flood Control Project Final Environmental Impact Statement*; the *Rio Grande Canalization Project Brief and Final Environmental Impact Statement* (USIBWC 2004b); the *El Paso-Las Cruces Regional Sustainable Water Project and Environmental Impact Statement* (USIBWC 2001); and Reclamation's (2003) *Elephant Butte and Caballo Reservoirs Resource Management Plan and Environmental Impact Statement*.

Proposed Action and Alternatives

This section describes the two alternatives analyzed in detail in this environmental assessment, the Proposed Action and the No Action Alternative.

No Action Alternative

Under the No Action Alternative, the Rio Grande Project would continue to operate under Reclamation's previously imposed operational procedures as it has for more than 20 years without hope for consensus by all parties on an operating agreement. Ongoing effects of the project would continue. This alternative establishes the baseline environmental conditions for comparison with the Proposed Action Alternative.

Proposed Action Alternative

Reclamation's proposed action analyzed in this environmental assessment is to implement adjusted Operating Procedures and then continue discussions with the Districts in anticipation of implementing an operating agreement signed by all parties. The modified Operating Procedures are in Appendix A.

Mitigating Measures Common to All Alternatives

A mitigating measure common to both alternatives is to increase and improve monitoring of all water deliveries and return flows and reduce spills of Rio Grande Project water in addition to the City of El Paso's continued monitoring of the effects of their Canutillo well field and the provision of these data to Reclamation for compilation in a report that will be issued every five years.

Environmental Effects

Environmental effects of the Proposed Action Alternative compared with No Action would be possible throughout the Rio Grande Project area as described above and shown in Figure 1. Resource specialists reviewed the alternatives and considered potential effects to natural, cultural, and socioeconomic resources. Their conclusion is there would be no direct effects of adjusting the Operating Procedures. Any effects would be indirect or cumulative, and those would be beneficial. Table 2 summarizes effects of the Proposal Action on environmental resources. Additional information is provided below.

Environmental Issue or			Significant
Resource	No Effect	Minor Effect	Effect
Air Quality	Х		
Floodplains and Wetlands	Х		
Geology and Soils	Х		
Threatened and Endangered	Х		
Species			
Vegetation	Х		
Water Resources		Х	
Wildlife	Х		
Cultural Resources	Х		
Environmental Justice	Х		
Indian Trust Assets	Х		
Population Growth	Х		
Public Health and Hazards	Х		
Recreation	Х		
Regional Economy		Х	
Transportation and Traffic	Х		

Table 2. Summary of Potential Effects of the Proposal Compared with No Action by Resources.

Natural Resources, Including Water Resources

Natural resources reviewed to determine effects of the Proposed Action include air quality, floodplains and wetlands, geology and soils (including prime farmlands), threatened and endangered species, vegetation, water resources (including water rights, hydrology, water delivery systems, water quality), and wildlife.

Basis of Significance

A significant effect on natural resources would contribute to an environmental violation; or it would not conform to applicable federal, state, or local law, regulation, or standard, such as a federal water quality or air quality standard. A significant effect would result in the permanent degradation or loss of native vegetation communities, jurisdictional wetlands, or important wildlife habitat. A significant effect would jeopardize the continued existence of a listed species or

adversely modify designated critical habitat under the Endangered Species Act of 1973.

Proposed Action Alternative

In comparison with existing conditions (No Action), the Proposed Action would continue to result in reservoir and river levels that are well within the range of historical operations and consequently would be in full compliance and conformance with all applicable federal, state, local laws, regulations, standards, and with international treaty obligations. The only exception to this is that the El Paso metropolitan area routinely exceeds the National Ambient Air Quality Standards designated by the Environmental Protection Agency under the Clean Air Act. El Paso is a non-attainment area, but this will not change under either alternative being considered here. No changes in natural resources are expected to occur because Rio Grande Project hydrology and operations will remain within historic operating parameters.

Based on current listings under the Endangered Species Act of 1973, prior biological surveys (USIBWC 2005), and biological opinions for the Rio Grande Project area, no designated critical habitat is present within the Rio Grande Project area. The only species of concern in the action area are the bald eagle (*Haliaeetus leucocephalus*), southwestern willow flycatcher (*Empidonax trailli extimus*), and yellow-billed cuckoo (*Coccyzus americanus*). Given the lack of change to hydrology or dam operations, the finding is "no effect" and no further action is needed to comply with the Endangered Species Act.

Cultural Resources

Cultural resources include prehistoric and historic districts, sites, buildings, structures, and objects. The term includes sites of traditional religious and cultural significance to Indian tribes and communities. Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties, which are defined as cultural resources listed on or eligible for including on the National Register of Historic Places.

Basis of Significance

An adverse effect is found when an undertaking may alter characteristics of an historic property that qualify it for the National Register (36 CFR 800.5).

Proposed Action Alternative

Reclamation's finding is that while historic properties are present in the Rio Grande Project Area, the Proposed Action would have no effect on them, as defined in 36 CFR 800.16(i). Following the regulations implementing Section 106 (36 CFR 800.4(d)(1)), this results in a finding of "no historic properties affected."

Socioeconomic Resources

Social and economic resources were examined to determine whether the Proposed Action would affect them. These resources include environmental justice (E.O. 13175), Indian trust assets, population growth and housing, public health (focusing on flood risk), recreation, the regional economy, and traffic and transportation.

Basis of Significance

A significant effect would negatively affect public health, safety, traffic, or an Indian trust asset; permanently and negatively alter regional economics or recreational opportunities; or result in a disproportionately high and adverse human health or environmental effect on low-income or minority populations.

Proposed Action Alternative

Reclamation's finding is that the Proposed Action would not directly affect socioeconomic resources. As mentioned above, it is not anticipated that the adjusted procedures would result in an appreciable change from efficiencies in deliveries that have existed over the period of study. The only potential for a socioeconomic effect is an indirect or cumulative positive effect on the district in Texas (EPCWID) by providing a larger amount of diversion allocation during some periods of drought. There is also some potential that EBID might eventually be able to conserve some surface water for delivery during drought and consequently reduce their dependence on ground water.

Consultation and Coordination

This environmental assessment was prepared by Reclamation in compliance with NEPA and the Council on Environmental Quality's implementing regulations (40 CFR 1500-1508). Table 3 lists names and titles of persons preparing this document. Table 4 lists agencies consulted.

Tuble 5. List of Treparets.	
Name	Title
Filiberto Cortez	El Paso Field Division Manager
Nancy Coulam	Chief Environmental Protection Specialist
Robert Maxwell	Environmental Protection Specialist
M. Jeff Painter	Resource Management Specialist

Table 3. List of Preparers.

Table 4. List of Agencies Consulted.

El Paso County Water Improvement District No. 1
Elephant Butte Irrigation District
United States Section of the International Boundary and Water Commission

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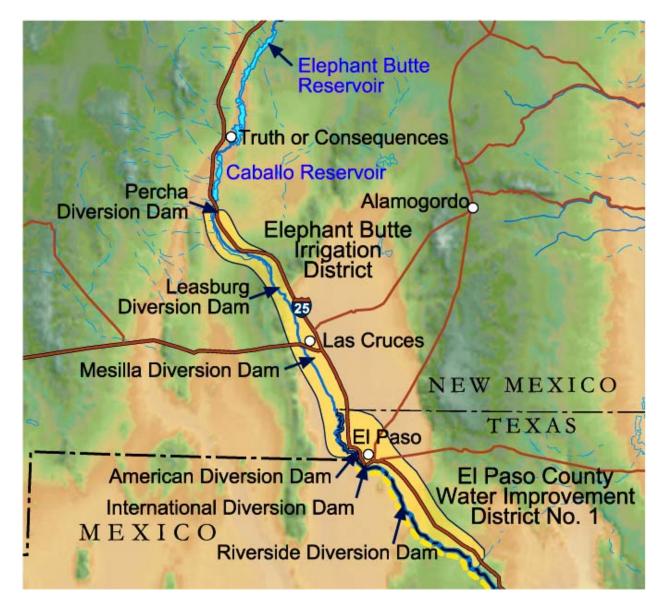


Figure 1. Showing Rio Grande Project Location in New Mexico and Texas, and the District Boundaries, and Facilities Mentioned in the Text. District boundaries are depicted in yellow.

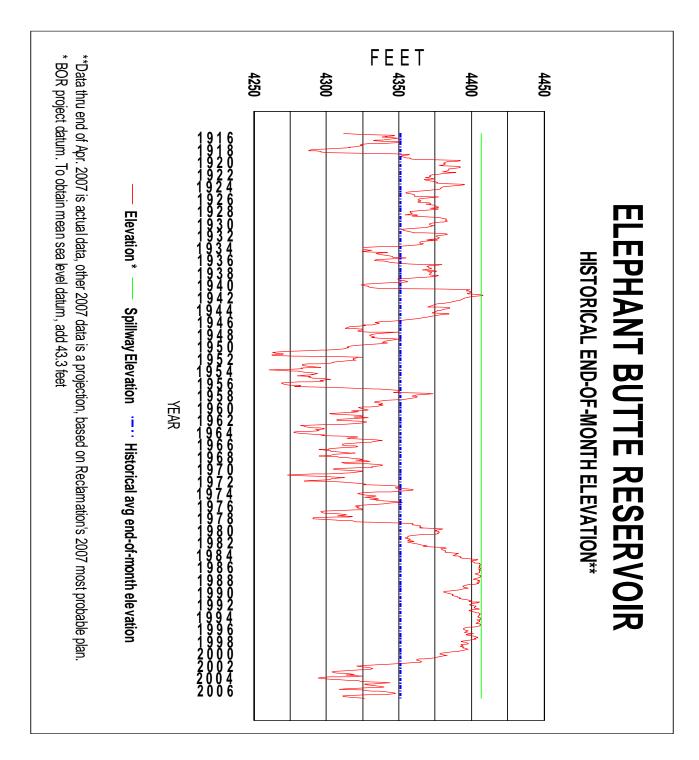


Figure 2. Elephant Butte Reservoir Historical End-of-Month Elevation.

Appendix A, Rio Grande Operating Procedures