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RESOLUTION
OF THE
ARKANSAS RIVER COMPACT ADMINISTRATION
CONCERNING
AN AMENDMENT TO THE OPERATING PRINCIPLES
FOR THE TRINIDAD DAM AND RESERVOIR PROJECT
AUTHORIZING MUNICIPAL AND INDUSTRIAL USE OF PROJECT WATER

WHEREAS, Article IV-D of the Arkansas River Compact provides: "This Compact is not intended to impede or prevent the future beneficial development of the Arkansas river basin in Colorado and Kansas by federal or state agencies, by private enterprise, or by combinations thereof, which may involve construction of dams, reservoirs and other works for the purposes of water utilization and control, as well as the improved or prolonged functioning of existing works: Provided, that the waters of the Arkansas river, as defined in Article III, shall not be materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas under this compact by such future development or construction;" and

WHEREAS, in P.L. 85-500, dated July 3, 1958, Congress authorized the Trinidad Project "substantially in accordance with the recommendations" in a Review Report by the U.S. Corps of Engineers dated June 30, 1953, published as House Document No. 325, 84th Congress; and

WHEREAS, Kansas by letter from Gov. William H. Avery dated December 30, 1966 approved proposed Operating Principles for the Trinidad Project subject to five additional conditions; and

WHEREAS, the Arkansas River Compact Administration reviewed and approved the Trinidad Project Operating Principles, including the Five Kansas Conditions, by resolution dated June 6, 1967; and

WHEREAS, the U.S. Bureau of Reclamation ("Reclamation") and the Purgatoire River Conservancy District ("PRWCD") approved the Operating Principles, including the additional five Kansas Conditions; and

WHEREAS, the Trinidad Project was constructed by the U.S. Army Corps of Engineers and was substantially completed by January 1, 1977; and

WHEREAS, the Operating Principles state that the Trinidad Project will serve the functions of flood control, irrigation, and recreation including a permanent fishery pool. No allowance was made in the Operating Principles for use of Trinidad Project water for municipal and industrial purposes; and

WHEREAS, the State of Colorado is vitally interested in the economic development of the Trinidad area, and such interests will

be served by the use of Trinidad Project water for municipal and industrial purposes; and

WHEREAS, Kansas Condition No. 2 of the Operating Principles states: "Any subsequent amendment of the Operating Principles should be subject to the review and approval of the same interests as provided for in the original procedure."

NOW, THEREFORE, BE IT RESOLVED that the Arkansas River Compact Administration hereby approves the proposed amendment to the Operating Principles for the Trinidad Dam and Reservoir Project, as set forth in the attached Exhibit "A", authorizing the use of Trinidad Project water for municipal and industrial purposes.

Entered this 9th day of December, 1997, at a meeting of the Arkansas River Compact Administration.



~~Larry E. Trujillo, Sr.~~
Chairman



DATE

See

OPERATING PRINCIPLES
TRINIDAD DAM AND RESERVOIR PROJECT
Amended 1997

Preamble

The Trinidad Dam and Reservoir Project as reported in House Document No. 325, 84th Congress, 2d Session, and as authorized by the Flood Control Act of 1958, will be operated in such a manner as to secure the greatest practicable benefits from the regulation and use of the flows of the Purgatoire River consistent with the laws and policies of the State of Colorado and of the United States including the Arkansas River Compact. The objectives and principles governing the operation of the Trinidad Dam and Reservoir Project to secure such benefits are contained within the following articles.

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Article I - OBJECTIVES

The operation of the Trinidad Dam and Reservoir involves the regulation of the flows of the Purgatoire River for flood control, irrigation use, municipal and industrial use and recreation, including a permanent fishery pool. The project plan provides for:

1. Control of floods originating above the reservoir for benefit of the City of Trinidad and downstream reaches.
2. Optimum beneficial use of the available water for irrigation and municipal and industrial uses (municipal and industrial hereinafter abbreviated M&I) within the project area consistent with the protection of downstream non-project rights as set forth in House Document No. 325, 84th Congress, 2d Session, which provides:

(a) Transfer of the storage decree of the Model Land and Irrigation Company for 20,000 acre-feet annually from the present site to the proposed Trinidad Reservoir.

(b) Storage in the Trinidad Reservoir of flood flows originating on the Purgatoire River above the dam ~~site~~ which would otherwise spill from John Martin Reservoir.

(c) Storage in Trinidad Reservoir of the winter flows of the Purgatoire River historically diverted for winter irrigation of project lands.

3. The maintenance of a minimum pool for enhancement of recreation and fishery values.

4. The construction of the Trinidad Dam and Reservoir with the following allocated capacities:

Flood control	51,000 acre-feet
.	
Irrigation <u>and M&I</u>	20,000 acre-feet
.	
Permanent fishery pool	15,967 acre-feet
.	
Joint use*	39,000 acre-feet
.	
Total Allocated	<u>125,967 acre-feet</u>

Capacity

*For irrigation, M&I and sediment accumulation

Article II - DEFINITION OF TERMS

Definition of terms as used herein:

1. "Reservoir" means the reservoir presently planned and authorized for construction on the Purgatoire River above the City of Trinidad, Colorado.

2. "District" means the Purgatoire River Water Conservancy District, that entity created and existing under laws of the State of Colorado to contract for repayment to the United States of an appropriate share of the project costs allocated to the irrigation and M&I use. The District shall also be the agency responsible for the regulation of irrigation and M&I water supplies within the District boundaries in the manner set forth therein.

3. "Unused Sediment Capacity" means that portion of the 39,000 acre-feet of reservoir capacity allocated to joint use but unoccupied by sediment at any given time.

4. "Irrigation Capacity" means the 20,000 acre-feet of reservoir capacity allocated to irrigation and M&I use plus the unsedimented portion of the joint use capacity.
5. "Permanent Fishery Pool Capacity" means the 15,967 acre-feet of reservoir capacity allocated to fishery and recreation.
6. "Permanent Fishery Pool" means the quantity of water stored in the permanent fishery pool capacity.
7. "Flood Control" means the temporary storage of flood waters at any reservoir pool level as necessary to alleviate flood damages through the City of Trinidad and downstream reaches.
8. "Flood Control Capacity" means the 51,000 acre-feet of capacity exclusively allocated to flood control lying initially above m.s.l. reservoir elevation 6229.6.
9. "Reservoir Inflow" is to be expressed in mean daily cubic feet per second of time and means that total flow of water entering the reservoir, comprising measured flows at the inflow gaging stations and other unmeasured inflows entering the reservoir, less such flow of water as may be acquired by the State of Colorado for filling and maintaining the permanent fishery pool.
10. "District Irrigable Area" means only the 19,717 acres of Class 1, 2 and 3 irrigable lands to be served lying within District boundaries.
11. "Irrigation Season" means that period of the year, as determined annually by the District, during which water may be beneficially applied to the District irrigable area, provided the irrigation season will not begin earlier than April 1 or end later than October 15, except as modified by the District with the consent of the Secretary of Interior.
12. "Nonirrigation Season" means that period of the year other than the irrigation season.
13. "District Storage Right" means those rights under which the District may store water in the irrigation capacity for use on within the District irrigable area.
14. "District Water Supply" means that water supply of the Purgatoire River subject to District administration for irrigation and M&I use within the District irrigable area.

15. "Colorado State Engineer" means the Colorado State Engineer or such other administrative agency having jurisdiction and control over the distribution of the waters of the State of Colorado.

16. "Operating Agency" means the U.S. Army Engineer District, Albuquerque, New Mexico, Corps of Engineers.

Article III - FLOOD CONTROL

Trinidad Reservoir shall be operated for flood control benefits in accordance with regulations prescribed by the Secretary of the Army and the following operating principles:

1. All potentially damaging flood inflows shall be temporarily detained as necessary to limit the flow insofar as possible to a non-damaging flow, currently estimated to be 5,000 c.f.s., downstream from the Trinidad Reservoir.

2. All flood waters stored in the flood control capacity shall be released at the maximum non-damaging rate insofar as practicable.

3. Any inflow, other than that stored for irrigation and M&I and Permanent Fishery Pool use, temporarily retained below the bottom of the flood control capacity for flood control purposes, shall be released by the operating agency at such a rate, time, and quantity as may be ordered by the Colorado State Engineer, but within non-damaging flow in the channels below the reservoir.

Article IV - IRRIGATION, MUNICIPAL AND INDUSTRIAL

Administration of the Irrigation capacity in Trinidad Reservoir and the distribution of water to the District irrigable Area and to M&I uses within the District will be made by the District in accordance with House Document No. 325, 84th Congress, 2d Session, and these operating principles. Agreements, satisfactory to the Secretary of the Interior, shall be entered into between the District and the ditch companies and other owners of affected water rights to insure that these principles and the operation described herein shall be adopted.

The principles and provisions under which the District will administer water supplies to the District irrigable area and to M&I uses within the District are contained in the following four parts of this Article: "Water Rights," "Limits of Land and Water Use," "District Water Supply," and "Operation and Exercise of Water Rights."

A. Water Rights

Accomplishment of the following conditions is necessary under the laws of the State of Colorado to provide the District with the right to regulate the flows of the Purgatoire River in the manner described herein:

1. The water users within the District shall assign the right to the exercise of all the decreed direct flow water rights within the District boundaries to the District for administration by the District at such times and to the degree outlined in these principles. The right to the exercise of the following water rights, all in Water District No. 19, shall be so assigned.

Direct Flow Rights
Water Division No. 2

<u>Number</u>	<u>Priority</u> <u>Date</u>	<u>Amount</u> <u>(cfs)</u>	<u>Name of Ditch</u>
3	11/30/61	6.00	Baca
5	3/20/62	4.00	Johns Flood
7	4/30/62	7.00	Chilili
8	11/15/62	2.82	Baca
8	11/15/62	1.18	El Moro
9	1/1/63	1.28	Johns Flood
9	1/1/63	4.72	Hoehne
12	6/30/63	0.50	South Side
13	1/1/64	1.25	Johns Flood
13	1/1/64	3.75	Lewelling & McCormick
15	4/10/64	5.10	Johns Flood
15	4/10/64	0.80	Hoehne
15	4/10/64	2.54	Salas
19	6/1/65	4.00	Lewelling & McCormick
20	10/7/65	7.35	Johns Flood
20	10/7/65	16.65	Hoehne
21	1/1/66	6.00	Burns & Duncan
22	2/1/66	4.00	Salas
27	5/31/66	2.25	Johns Flood
27	5/31/66	0.75	Salas
40	4/30/68	1.40	South Side
64	4/1/73	2.40	Johns Flood
73	11/1/75	6.00	South Side
74	2/17/76	34.00	South Side
75	12/25/76	4.00	South Side
77	3/11/77	1.30	El Moro
77	3/11/77	2.70	Baca
80	4/7/77	18.60	South Side

<u>Number</u>	<u>Date</u>	<u>(cfs)</u>	<u>Name of Ditch</u>
93	12/15/82	4.00	South Side
95	11/4/83	14.38	Baca
96	11/23/83	16.84	South Side
98	4/30/84	60.00	South Side
103	6/21/86	14.73	Baca
104	10/21/86	10.00	Lewelling & McCormick
106	3/12/87	15.00	Baca
108	2/15/88	9.70	South Side
109	3/1/88	8.00	South Side
137	11/23/97	2.00	V. Florez
145	10/20/02	100.00	Johns Flood
152	12/31/03	2.00	V. Florez
168	1/22/08	200.00	Model
242½	6/12/20	45.56	Baca

2. Waters of the Purgatoire River shall be stored by the District in the irrigation capacity of Trinidad Reservoir under rights created under Colorado law; said rights, defined as the District storage right, include:

(a) The Model storage right, being the right to store 20,000 acre-feet of water from the flows of the Purgatoire River, under reservoir priority No. 10 in Water District No. 19 at a rate of flow not exceeding 700 cubic feet per second of time under date of appropriation of January 22, 1908, as decreed by the District Court of Las Animas County, Colorado, on January 12, 1925, which right shall, by appropriate statutory proceedings be transferred from the place of storage as originally decreed to the site of the reservoir; and

(b) Such other rights to store water in the reservoir as the District may lawfully acquire by appropriation or purchase.

B. Limits of Land and Water Use

In order that the Trinidad Dam and Reservoir Project may provide an optimum beneficial use of water for irrigation and M&I use within the District, the following limitations on land and water use shall apply:

1. The acreage irrigated by the District water supply shall be limited to the 19,717 acres classified as 1, 2 and 3 irrigable land lying within the District boundaries. These 19,717 acres of the District irrigable area shall be composed as nearly as practicable of the following acreages under individual ditches:

Baca	2,428 acres
Chilili	114 acres
El Moro	160 acres
Johns Flood	1,854 acres
Model	6,177 acres
South Side	6,359 acres
Victor Florez	22 acres
Hoehne	1,742 acres
Burns & Duncan	322 acres
Lewelling & McCormick	378 acres
Salas	161 acres
Total	<u>19,717</u> acres

2. All water deliveries to the 19,717 acres of the District irrigable area will be limited during the irrigation season to the irrigation requirements at the farm headgate as determined by the District. Allowance for canal and lateral losses on the individual ditch systems will also be determined by the District.

3. ~~No water deliveries for irrigation of the 19,717 acres of the District irrigable area will be made during the nonirrigation season. Water deliveries may be diverted or stored for M&I or permanent fishery pool purposes with the following limitations:~~

(a) Only water attributable to the historic consumptive use on acreage removed from irrigation, limited to 948 acres under the Johns Flood Ditch system and 373.7 acres under the Model Land and Irrigation Company system, may be made available for M&I storage or permanent fishery pool storage. Water deliveries shall be limited to the following volumes, which shall not include the volumes retained in storage for later release to maintain historic delayed return flow patterns to the Purgatoire River:

	<u>Maximum Monthly Water Deliveries (acre-feet)</u>
<u>Apr</u>	<u>220</u>
<u>May</u>	<u>345</u>
<u>Jun</u>	<u>565</u>
<u>Jul</u>	<u>685</u>
<u>Aug</u>	<u>620</u>
<u>Sep</u>	<u>345</u>
<u>Oct</u>	<u>160</u>
<u>Nov - Mar</u>	<u>0</u>
<u>Annual Total</u>	<u>2,802</u>

(b) Water attributable to historic return flows associated with the exercise of the water rights used on the acreage removed from irrigation shall be released in such a manner as to maintain the historic return flow patterns to the Purgatoire River. Such return flows, which shall include non-irrigation season return flows, shall be equal to at least 35 percent of the water available to acreage removed from irrigation.

(c) Removal of District irrigable land from irrigation to enable water to be diverted or stored for M&I or Permanent Fishery Pool purposes shall correspondingly reduce the number of acres allowed to be irrigated from the District Water Supply. Prior to April 1 each year, the City of Trinidad shall provide notice to the Arkansas River Compact Administration and the State of Kansas of the acreage to be removed each year corresponding to the amount of water for the Johns Flood Ditch and the Model Ditch to be stored in Trinidad Reservoir for that year. The report shall include a map indicating the specific acreage to be removed from irrigation.

(d) Any Colorado state court or administrative approval of the City of Trinidad's water use covered by these Operating Principles shall require compliance herewith.

4. No water deliveries for irrigation of the 19,717 acres of the District irrigable area will be made during the non-irrigation season. Water may be released during the non-irrigation season for M&I use or to maintain historic return flow patterns for lands removed from irrigation.

C. District Water Supply

1. That water supply of the Purgatoire River subject to District administration for irrigation and M&I use within the District ~~irrigable area~~, defined as the District water supply consists of:

(a) The water stored under the District storage right in the irrigation capacity.

(b) The stream gains to the Purgatoire River below Trinidad Dam that are divertible to the District irrigable area for irrigation use through the District's exercise of the rights listed in IV.A.1.

(c) That portion of the reservoir inflow ~~bypassed to the river below at~~ Trinidad Dam which is available ~~subject to diversion to the~~ District ~~irrigable area~~ through the District's exercise of the water rights listed in IV.A.1.

2. The District water supply will be allocated by the District to the ditches within the District to provide each acre of the District irrigable area an equitable share of the District water supply after allowance has been made for individual ditch transportation losses, provided such allocation will not exceed the irrigation requirements at the farm headgate.

D. Operation and Exercise of Water Rights

The principles governing operation of the irrigation capacity and the District's exercise of the assigned direct flow water rights listed under IV.A.1. and the District storage right are hereinafter set forth as they apply to operations during the entire year as well as to operations during either the non-irrigation season or irrigation season.

1. Non-interference with Downstream Water Rights

(a) Bypasses to the river shall be made at any time during the year to satisfy downstream senior rights as ordered by the Colorado State Engineer to the extent that such demands are not met by stream gains or otherwise satisfied; but are limited to the extent as determined by the Colorado State Engineer to actually benefit such rights without unnecessary waste through channel losses.

(b) Reservoir inflow in excess of the amount stored under the transferred Model right may be detained in the reservoir at such times as John Martin Reservoir is reasonably expected to spill; to the extent that John Martin Reservoir would have spilled, such detained water shall be considered to have been stored under the District storage right and become part of the District water supply. Such detained water which does not become a part of the District water supply shall be released as called for by the Colorado State Engineer in the amounts and at such times as he shall determine that such releases may be required to avoid a material depletion of the water of the Arkansas River as defined in Article 3 of the Arkansas River Compact, C.R.S., 1953, 148-9-1.

(c) Except as provided by paragraph (b) above, any water temporarily detained in the reservoir as a result of the reservoir inflow exceeding the design outlet capacity of the reservoir shall be released as soon as possible.

(d) All releases from the reservoir as set forth in (a), (b) and (c) above, shall be passed down the Purgatoire River without interference by water users in the District irrigable area.

2. District Operation, Non-Irrigation Season

(a) During the non-irrigation season the District will provide an allowance for stock watering purposes of not more than a daily mean flow of five second-feet or its volume equivalent measured at a gage to be located near and above the Baca River headgate. If the stream gains from the Trinidad Dam to said gage are insufficient to fulfill the allowance, an equivalent volume of reservoir inflow will be released to satisfy stock water demands within the allowance.

(b) During the non-irrigation season, the District shall release water stored by the City of Trinidad as designated by the City of Trinidad for:

(1) M&I purposes;

(2) Winter return flows;

(c) During the non-irrigation season, the District will exercise the direct flow water rights and the District storage right only at such times and to the degree as necessary to assure:

(1) That the maximum possible storage of reservoir inflow is accrued.

(2) The stock water allowance is distributed in a manner determined equitable by the District.

3. District Operation - Irrigation Season

(a) During the irrigation season, except at such times as provided for in IV.D.3.(c) below, the District shall exercise the direct flow water rights and the District storage right only at such times and to the degree necessary to assure:

(1) That stream gains to the river below Trinidad Dam which are divertible to the District irrigable area and such reservoir inflow which is available bypassed to the river for District for irrigation and M&I use will be equitably allocated distributed to the District irrigable area as part of the allocated District water supply.

(2) That the District storage right can be fully exercised to store reservoir inflow in excess of that bypass to the river as may be required under D.1.(a) and D.3.(a)(1) above.

(b) During the irrigation season water stored in the irrigation capacity will be released as needed to fulfill or partially fulfill the irrigation requirements of the District irrigable area or, as designated by the City of Trinidad, made available for M&I purposes or the permanent fishery pool as provided in paragraph B.3. above as part of the allocated District water supply.

(c) During the irrigation season, when the irrigation capacity is empty as determined by the District, the District will relinquish its exercise of the direct flow water rights provided that if the reservoir inflow and stream gains below Trinidad Dam which are divertible to the District irrigable area exceed the irrigation requirement and such excess is storable under the District storage right, the District will resume the exercise of the direct flow rights and exercise of the District storage right as in D.3.(a)(2) above.

4. Evaporation and Seepage Losses

In the accounting for water in storage, evaporation and seepage losses due to water stored in the irrigation capacity shall be determined using the most recent data available by the Colorado State Engineer and the District with the cooperation of the operating agency.

Article V - FISHERY AND RECREATION

The permanent fishery pool shall be operated in accordance with the following principles:

1. Water for the initial filling and for replacing evaporation and seepage losses will be acquired by the State of Colorado without interference to the District water supply or without interference to usable Stateline flows, or without additional cost to the District or the United States for the Trinidad Project as envisioned in House Document No. 325. In the specific case of the 11,467 acre-feet allocated to the permanent fishery pool pursuant to the Final Environmental Assessment for Revision of the Water Control Manual to Allocate Excess Storage in Trinidad Lake, Las Animas County, Colorado, U.S. Army Corps of Engineers, dated September 1994, the initial filling shall only be made using waters imported into the Arkansas River basin from other river basins, either by direct importation or by exchange pursuant to the laws of Colorado. The initial filling and the replacement of evaporation and seepage shall be made according to the following procedures:

(a) All water rights on the Purgatoire River downstream of Trinidad Reservoir will be satisfied during the period of any

exchange;

(b) Prior to any exchange, the specific source of imported or native water, as limited by the Operating Principles for Trinidad Dam and Reservoir Project, as amended, will be verified by the Colorado State Engineer;

(c) For each acre-foot of native water stored in Trinidad Reservoir by exchange, the Colorado Division of Parks will deliver an acre-foot of identifiable imported water, or native water whose consumptive use has been determined by final decree of the Colorado Water Court, to the Arkansas River at the Las Animas gaging station;

(d) Transit losses between the source of supply for an exchange and the Las Animas gage will be determined and assessed by the Colorado State Engineer, using the "Livingston Method" or other suitable means, to assure that a "one for one" exchange is accomplished.

The Colorado State Engineer will report and account contemporaneously and annually to the Arkansas River Compact Administration on the initial filling and replacement of evaporation and seepage in the permanent fishery pool.

2. In the accounting for water in storage, evaporation and seepage losses due to the permanent fishery pool shall be determined using the most recent data available by the Colorado State Engineer and the District with the cooperation of the operating agency.

3. There shall never be any release or transfer of water from the permanent fishery pool excepting by necessity of dam safety or flood emergency operations as determined by the Corps of Engineers, District Engineer.

Article VI - REVIEW AND AMENDMENT

These Operating Principles may be subject to review and amendment not more than once a year at the request of any of the parties' signatory; provided, that at least one review shall be accomplished within the first 10 years following completion of the Trinidad Dam and at least one review be accomplished every 10 years thereafter. The primary object of such reviews will be obtaining optimum beneficial use of water as conditions change, operating experience is gained, and more technical data become available.

FIVE CONDITIONS
State of Kansas

1. All inflows over established Colorado water rights (1,156.05 c.f.s.) be designated flood flows and released as promptly as downstream conditions permit. The only time water so designated may be stored in the conservation pool will be when John Martin Reservoir does not have the capacity to store additional water.
2. Any subsequent amendment of the Operating Principles should be subject to review and approval of the same interests as provided for in the original procedure.
3. Assurances that there will be no significant increase in water use which would result in a depletion of water yield to other Colorado and Kansas water users.
4. That 5 years after beginning operation of the Trinidad Reservoir for irrigation purposes, the Operating Principles be reviewed to determine the effect, if any, the operation has had on other Colorado and Kansas water users and the principles amended as necessary. Each 10 years thereafter, reviews should be provided with amendments as needed.
5. All operating records be open for inspection by any qualified representative of the Arkansas River Compact Administration.

The Bureau of Reclamation concurs fully with the "Operating Principles" as set forth above, and further agrees with the five conditions noted and suggested by the State of Kansas, also stated above.

APPROVED:

Larry E. Trujillo, Sr., Chairman Date
Arkansas River Compact
Administration

State of Kansas Date

U.S. Bureau of Reclamation Date

Purgatoire River Water Date
Conservancy
District

U.S. Army Corps of Engineers Date