

APPENDIX D

Table of Preliminary List of Issues to be Addressed in the 10-Year Review



United States Department of the Interior



BUREAU OF RECLAMATION

Eastern Colorado Area Office
11056 West County RD 18E
Loveland, Colorado 80537-9711

IN REPLY
REFER TO:

EC-1340
WTR-4.00

APR 27 2006

Subject: Preliminary List of Issues to be Considered in the 10-Year Review of the Operating Principles for the Trinidad Dam and Reservoir Project

Dear Interested Parties:

In a letter dated March 3, 2005, the Bureau of Reclamation requested that comments be submitted for consideration in the upcoming 10-year review of the Operating Principles for the Trinidad Dam and Reservoir Project (Project). Comments were received from the State of Colorado (Colorado), the State of Kansas (Kansas); and the Purgatoire River Water Conservancy District (District).

An informational meeting was held in Trinidad, Colorado on October 5, 2005, to present the comments received, and to provide additional information regarding the review process. Reclamation made follow-up phone calls with Kansas, Colorado, and the District to gain a further understanding of the issues that these parties presented.

On February 22, 2006, Reclamation held a technical meeting in Denver, Colorado, to examine the details of the proposed issues. At the meeting Reclamation provided a list of issues compiled from the submitted written comments and follow-up phone calls. Representatives from the District, Colorado, Kansas, the City of Trinidad, U.S. Army Corps of Engineers (COE), and The Nature Conservancy were in attendance. In the enclosed table is a preliminary list of issues that has been compiled for consideration and further review by Reclamation based on the discussions during the meeting.

Two Issue Items that will not be considered in this 10-year review process are as follows (the issue item numbers refer to the topics listed in the enclosed table):

1. Issue Item 11, rate secondary gage below Trinidad Reservoir. This has been identified as a COE issue, which will be addressed in a different venue.
2. Issue Item 14, status and utilization of the Model Reservoir. Colorado has agreed to provide information to Kansas on status and utilization of reservoirs.

The remainder of identified issues will be considered in the 10-year review. Several of these issues involve common themes, and are being consolidated for further consideration in the 10-year review process.

The preliminary list of issues that will receive consideration are as follows:

1. Water Measurement and Gaging

- a. Document that the U.S. Geological Survey (Survey) Loss Study was completed.
- b. Compile a list of historic gages for the Project, including documenting their respective period of records, locations, and tracking the different names that were used.
- c. Document that the COE and Reclamation began sharing the cost of operation and maintenance of the Survey operated Purgatoire River at Thatcher Gage.
- d. Convene an ad-hoc technical team to examine which gages are needed for the Project.

2. Acreage Verification

- a. Document what has been done to improve the tracking of Project acreage.
- b. Identify procedural improvements needed to ensure compliance with the Operating Principles.
- c. Have discussions regarding standardizing the data for the Geographic Information Systems product currently under development by the District.

3. Document current and historic practices, and identify procedural improvements needed to ensure compliance with the Operating Principles for the following existing uses of Project water:

- a. Stock Water Releases
- b. Permanent Fish Pool including both the enlargement of the fish pool, and approval of Model water by State Parks
- c. City of Trinidad use of Municipal and Industrial water.

4. Modeling review and verification

- a. Create documentation for the 1964 and 1988 models. Including a description of what they do, what they do not do, and what assumptions were made.
- b. Review 1964 and 1988 models to see if current operations are modeled adequately.

- c. Review data being collected to ensure that it is the correct data needed for future modeling.
- d. Using the existing model, analyze the impacts from storing direct flows in the irrigation capacity during the non-irrigation season (Winter Water). Determine to the extent possible, if the results modeled adequately represent the operation and impacts.

5. Flood Control Operations of Trinidad Dam and Reservoir

- a. Provide copies of documents in the report from April 16, 1993, and December 2, 1998, letters between COE and Reclamation that established the maximum non-damaging flows from the dam to be 3,000 cfs.
- b. Obtain a new letter from the COE documenting the current maximum non-damaging flow capacity.

Comments regarding this preliminary list will be accepted until May 31, 2006, at which time a final list of issues will be distributed. I will provide updates, as they become available. Notification will be sent for meetings that are arranged to collect and present information regarding these issues.

If you have any questions, or to discuss these items in more detail, please email me at jgould@gp.usbr.gov, or call me at 970-962-4338.

Sincerely,

Jaci Gould

Jaci Gould
Manager, Resource Division

Enclosure -1

bc: 85-6000 (Vehmas) (w/encl)
EC-1320 (Wilson, Harlan) (w/encl to each)

WBR: JGOULD: lnguyen: 04/27/06:970-962-4338
G:secretary\gould\10yrTrinidadReview\Draft list of issues for 10-yr review.doc

**Trinidad Dam and Reservoir Project
Preliminary List of Issues for the
2006 Review of the Project Operating Principles**

| Item | Issue | Agency | Letter | Phone | Comments | Not included in 2006 Review | Include in 2006 Review |
|------|--|----------|--------|-------|--|--|---|
| 1 | Look at which gages should continue to operate, and who should pay. | Colorado | L-2 | | | | Identify what gages are needed to assess project impacts. |
| 1a | Purgatoire River at Thatcher gage aka: below Von Bremmer Arroya gage | Colorado | L-2 | | BoR and COE agreed to cost share operation of this gage starting in FY-2006. USGS operates gage. The 1996 review used this gage. | | Document this in the review. |
| 1b | Purgatoire River on Von Bremmer Arroya gage | Colorado | L-2 | | COE pays USGS to operate gage. | | Does BoR use this gage for 10-year review? |
| 1c | Luning Arroyo gage | Colorado | L-2 | | This gage is temporarily discontinued. Co is looking at funding operation of this gage. | | Does BoR use this gage for 10-year review? |
| 2 | USGS loss report | Colorado | | P-2 | Co is working with ditch companies to provide more accurate measurements. | | Acknowledge that the study was done, in 10-yr review document. |
| 3 | Future Modeling and associated data needs | Colorado | | P-2 | | | Document in this review. |
| 4 | Acreage verification | Colorado | | P-2 | Availability of remotely sensed data, and verification processes. | PRWCD needs to identify a POC for GIS. Colo may have funding available for this effort. | Document what has been done. Colorado wants to standardize data analysis and mapping with statewide GIS system. |
| 5 | Stock Water Releases | Kansas | L-1 | P-1 | Impacts of changes need to be evaluated, would like details of what is done. | | Document what has been done. Check to see that it is modeled correctly in 1964 model. Set criteria for how data is collected in the future. |
| 6 | Acreage Verification Acres irrigated under the project need to be tracked better. | Kansas | L-1 | P-1 | Verify what tracks were under irrigation in 2005. Need better GIS product from PRWCD, may be able to work together on this development. | Investigate what can be done to standardize with others. | Document what has been done. Identify procedural improvements. |
| 7 | Permanent Fish Pool | Kansas | L-1 | P-1 | Look at what was proposed, and what really happened. | City of Trinidad will provide info what water was put into perm. fish pool. | Document this change in OP. |
| 7a | Enlargement of fish pool | | | | Look at what land was actually dried up, review how this was accounted for. | | 1. City of Trinidad M&I water. |
| 7b | Approval of Model water by State Parks | | | | | | 2. Document enlarged fill TMD. 3. Use of Model by Parks. Data requirements documented in OP. |

**Trinidad Dam and Reservoir Project
Preliminary List of Issues for the
2006 Review of the Project Operating Principles**

| Item | Issue | Agency | Letter | Phone | Comments | Not included in 2006 Review | Include in 2006 Review |
|------|--|--------|--------|-------|---|--|--|
| 8 | Modeling in general | Kansas | L-1 | P-1 | Look at data being collected, to see that it is the right data needed for future modeling. | | Perform analysis of past project operations using the 1964 model. Determine if 1964 model can be used to evaluate future changes. Provide good description of 1964 model. What it does, and does not do, what assumptions are made, and compare with how the Project operates. |
| 9 | Progress toward efficient application of available irrigation supply. | Kansas | L-1 | P-1 | Issue is related to gaging, acreage verification, and model review. | | Document in review. |
| 10 | Flood control operations (CoE) Channel below reservoir is rated for 5,000 cfs, but there is much less capacity than this. | Kansas | L-1 | P-1 | Channel maintenance and capacity issues. Regulation of flows. Is there a need for a new channel capacity (flood control) study? | CoE issue. Will be studied outside of 10-year review. | Provide copy of the Dec 2, 1998 letter from Colo to Jack Garner, (April 16, 1993 ltr) documenting max release of 3,000 cfs, in the 10-year review document. Obtain new letter from CoE to document existing save channel capacity. |
| 11 | Rate secondary gage below Trinidad Reservoir | Kansas | | P-1 | CoE maintains these gages for flood operations: Flows under 1,000 cfs, inverted bucket. Gage for flows over 1,000 cfs needs to be calibrated. | CoE action outside of 10-year review. | |
| 12 | Hydrologic impacts of M&I water | Kansas | L-1 | | | | See issue number 8 comments. |
| 13 | Create a document to track changes to OP, not historically but from this point on. | Kansas | | P-1 | | | BoR will maintain track changes document if the OP are amended. |
| 14 | Status and utilization of Model Reservoir. | Kansas | | P-1 | Is there any storage allocation left at the Model reservoir site? | Not part of project, outside of 10-yr review. | |
| | Status and utilization of other reservoirs. | | L-1 | | Verify with Colorado, but don't think there are any. | Co agreed to get info to Ks. | |
| 15 | Hydraulic impacts of lands removed from irrigation. | Kansas | L-1 | | | | See issue number 8 comments. |
| 16 | Requested that the modeling period be 1979 to present. | Kansas | L-1 | | The modeling period is not being examined in this review process. | | General comment noted. |

**Trinidad Dam and Reservoir Project
Preliminary List of Issues for the
2006 Review of the Project Operating Principles**

| Item | Issue | Agency | Letter | Phone | Comments | Not included in 2006 Review | Include in 2006 Review |
|------|---|--------|--------|-------|--|-----------------------------|--|
| 17 | Winter water Analyze the impacts, if any, of storing direct flows in the irrigation capacity during the non-irrigation season. | PRWCD | L-3 | P-1 | Examine possibility of amending the OP, if needed. Develop model to analyze project depletions. PRWCD thinks this is covered under the current Operating Principles. | | Evaluate 1964 model to see if current operations are adequately modeled. Perform modeling to determine effects of winter water storage. |

Letters

| | |
|-----|--|
| L-1 | April 14, 2005, from David Pope, Chief Engineer, State of Kansas. |
| L-2 | April 15, 2005, from Hal Simpson, State Engineer, State of Colorado. |
| L-3 | October 5, 2005, from Julianne Woldridge, for PRWCD. |

Conversations

| | |
|-----|---|
| P-1 | Jan 25, 2006 w/ Kevin Salter, Dave Barfield, David Pope to provide clarification on Kansas' letter of April 14, 2005. |
| P-2 | January 31, 2006 w/ Steve Miller and Carol Angel to provide clarification on Colorado's letter of April 15, 2005. |
| P-3 | February 21, 2006 w/ Julianne Woldridge representing PRWCD to provide clarification on letter October 5, 2005. |