1. Administrative Details

Proposal Name: Clarence Cannon Dam and Mark Twain Lake Project Salt River, Missouri

by Agency: Missouri Department of Natural Resources

Locations: MO

Date Submitted: 08/17/2018

Confirmation Number: c23ac77a-8df7-48f3-99ff-bc43dbbc472f

Supporting Documents

File Name	Date Uploaded
CCWWC letter of support.pdf	08/17/2018
Section 7001 MDNR Support-Letter-08-17-2018.pdf	08/17/2018
Mark Twain Lake map USACE.PDF	08/17/2018
Section 1046(d) MDNR Letter-02-28-2018.pdf	08/17/2018
Nov. 1, 2016 email.pdf	08/17/2018
MVD Transmittal to HQ.pdf	08/17/2018
CCWWC Map of Coverage Fall 2015.pdf	08/17/2018
CCWWC system overall-36 X 48 wall map.pdf	08/17/2018

2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

Sponsor	**Letter of Support**
Missouri Department of Natural Resou rces(Primary)	The State of Missouri, through the Missouri Department of Natural Resources, supports this Section 7001 proposal to be released from 5,600 acre-feet of future use water supply storage in Mark Twain Reservoir
Clarence Cannon Wholesale Water Co mmission (CCWWC)	Letter Attached

3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.

[x] Modification to an Authorized USACE Project : Clarence Cannon Dam and Mark Twain Lake Project Sa lt River, Missouri

4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.

The State and the Clearance Cannon Wholesale Water Commission (CCWWC) have interconnected contrac ts with the St. Louis District Corps for 20,000 acre-feet of water supply storage on Mark Twain Reservoir. A s per these contracts, the State holds the future use water supply and CCWWC holds the present use water supply storage. To date CCWWC holds 6,250 acre-feet in present use and the State holds the remaining 13,7 50 acre-feet in future use storage. As of 2016, the CCWWC uses just over 4.12 million gallons per day (MGD), or just over 4,600 acre-feet (approximately 23 percent contracted water supply storage). Due to declining population within the CCWWC service area and capacity limitations at the existing water treatment plant a nd distribution lines, it is projected that the CCWWC will not need the entire capacity of our joint water sto rage contract. Therefore, the State and CCWWC (see attached letter of support) request release of a portion of our future use water supply storage back to the Federal Government. The released future use storage will remain in the lake and applied to other uses such as fish and wildlife conservation and recreation. At this ti me the State would like to withdraw the "right of first refusal" request and re-submit our Section 1046(d) pl an within this Section 7001 proposal.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	**Non-Federal**	**Total**
Study	$0	$0	$0
Construction	$8,282,000	$0	$8,282,000

Explanation (if necessary)

• Reduction in Principal - an estimated reduction in the final principal payment of $4.6 million • Reduction in Interest - Estimated interest payment would be reduced by $185,000 annually, or by a total of $3.0 million over the 20 years remaining before the contract matures • Reduction in Operation and Maintenance (O&M) - an estimated annual reduction of $28,000 on O&M payments , or by a total of $575,000 of the remainder o f the contract

6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

Releasing 5,600 acre-feet of water supply storage back to the Federal Government will directly save the State an estimated $4.6 million in principal and $3.1 million in interest and O&M payments through contract mat urity (2038). Releasing this excess storage will safe he CCWWC an estimated $28,700 annually for the life of the contract, which will ultimately save rural water supply rate payers.

7. Does local support exist? If 'Yes', describe the local support for the proposal.

[x] Yes

Local Support Description

Please see the Clarence Cannon Wholesale Water Commission (CCWWC) letter of support

8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?

[x] Yes

Other Non-Federal Sponsors Letter(s) of Support

(This is as uploaded, a blank page will show if nothing was submitted)

CCWWC letter of support.pdf

*Tap **into** pure, clean water.*

Clarence Cannon Wholesale Water Commission

Phone
(573) 672-3221

34146 Route U
Stoutsville, Missouri 65283-2117

Fax (573) 672-3238
Email: ccwwc.h20@gmail.com

July 19, 2017

Ms. Lisa Kiefel
U.S. Army Corps of Engineers, Headquarters
441 G Street NW
Washington DC 20314-1000

Dear Ms. Kiefel:

This letter is in support of the State of Missouri's effort to renegotiate the plan for municipal and industrial (M&I) water regarding the water supply storage in Mark Twain Reservoir.

The State, Clarence Cannon Wholesale Water Commission (CCWC) and the U.S. Army Corps of Engineers (USACE) have a three party contract for 20,000 acre-feet of water supply storage on Mark Twain Reservoir. It is important to note that the M&I water contract caused no change or expense to the USACE in planning or construction of the Mark Twain Reservoir project. The CCWWC agrees that it is highly unlikely that we will need the entire capacity of our joint water storage contract. Therefore the CCWWC requests releasing a portion of our future use water supply storage back to the Federal Government. The CCWWC requests the release of 5,600 acre-feet of future use water supply storage retaining 20,000 acre-feet of water supply storage in Mark Twain Reservoir for the State of Missouri and the CCWWC.

Thank you in advance for your consideration of our Section 7001 proposal.

Sincerely,

Mark McNally
General Manager
Captain, USN retired

Cc: Mr. Bob Bacon, Missouri Department of Natural Resources, State Hydrologist

Primary Sponsor Letter of Support

(This is as uploaded, a blank page will show if nothing was submitted)

Section 7001 MDNR Support_Letter_08_17_2018.pdf

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Michael L. Parson, Governor
Carol S. Comer, Director

August 17, 2018

Ms. Lisa Kiefel
U.S. Army Corps of Engineers, Headquarters
441 G Street NW
Washington, DC 20314-1000

Dear Ms. Kiefel:

Last year, the State of Missouri's Department of Natural Resources (State) transmitted the attached proposal in accordance with Section 7001 of the Water Resources Reform and Development Act. The proposal is for the purpose of engaging the U.S. Army Corps of Engineers (Corps) to amend our Section 1046(d) plan regarding the State's future use water supply storage in Mark Twain Reservoir. The State is again submitting this amended plan to retract the "right of first refusal" request.

Section 1046(d) of the 2014 Water Resources Reform and Development Act provides an opportunity for state or local interests to request release of all or some contracted future use water supply storage back to the Federal Government. On December 31, 2015 and under a previous Administration, the State submitted a Section 1046(d) plan, which at that time linked the release of 5,600 acre-feet future use water supply storage to the condition that the State would have "right of first refusal" for the released storage. Since the plan linked the "right of first refusal" with the released storage, the Corps informed us that the plan would likely be disapproved. At that time, we received confirmation that if the State wished to separate the release of storage from the "right of first refusal" request at a later date, the State could re-submit its Section 1046(d) plan through a Section 7001 proposal (see attached document). The State does hereby retract the "right of first refusal" request and re-submits its Section 1046(d) plan within this Section 7001 proposal.

The State and the Clarence Cannon Wholesale Water Commission (CCWWC) have interconnected contracts with the St. Louis District Corps for 20,000 acre-feet of water supply storage on Mark Twain Reservoir. As provided in these contracts, the State holds the future use water supply and CCWWC holds the present use water supply storage. To date, CCWWC holds 6,250 acre-feet in present use and the State holds the remaining 13,750 acre-feet in present use storage. As of 2016, the CCWWC uses just over 4.12 million gallons per day (MGD), or just over 4,600 acre-feet (approximately 23 percent contracted water supply storage). Due to declining population within the mostly rural CCWWC service area and capacity limitations at

the existing water treatment plant and distribution lines, it is unlikely that the CCWWC will need the entire capacity of our joint water storage contract. The State and CCWWC (see attached letter of support) now intend to release a portion of our future use water supply storage back to the Federal Government.

As part of our enclosed Section 1046(d) plan, the State has developed a timetable for converting future use to present use water supply based on historical population growth, water demand, knowledge of existing regional infrastructure, and have estimated water demand projections considered the expense and feasibility of converting to present use, and the needs of CCWWC. We have estimated future water supply demand and have made regional water projections for the 14-county CCWWC service area surrounding Mark Twain Reservoir. The State and CCWWC will use it as a guide for conversion of future use to present use water supply through contract maturity in 2038.

The State's Section 1046(d) plan includes the following elements.

- The release of 5,600 acre-feet of future use water supply storage.
- Retain the overall water supply allocation of 20,000 acre-feet in Mark Twain Reservoir.

We appreciate the Corps partnership with the State in assisting us in meeting our water supply needs. Thanks you in advance for your consideration of our Section 7001 proposal.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Dru Buntin
Deputy Director

DB:bbj

c: Ms. Cherilyn Plaxco, U.S. Army Corps of Engineers, 700 W Capitol #7402, Little Rock, AR 72201
Mr. Shawn Sullivan, U.S. Army Corps of Engineers, 1222 Spruce Street, St. Louis, MO 63103

Map Document

(This is as uploaded, a blank page will show if nothing was submitted)

Mark Twain Lake map USACE.PDF

Clarence Cannon Dam & Mark Twain Lake

US Army Corps of Engineers®
St. Louis District

ATTENTION FISHERMEN & HUNTERS

All hunting and fishing regulations are administered and enforced by the Missouri Department of Conservation. Please refer to the Wildlife Code of Missouri or the Missouri Code of State Regulations. For further assistance contact the Missouri Department of Conservation at (573) 751-4115 or www.mdc.mo.gov.

Note: All remaining statewide fishing regulations apply.

RE-REGULATION POOL

- No fishing is permitted within the area 400' below the main dam.
- From 400' below the main dam, a catch-and-release stream regulation is applied.
- Fishing is permitted year round, but only from 400' below the main dam to the power line crossing and follow the regulations down to Route A.

CAUTION SWIMMERS

Designated beach areas are the safest place to swim in the lake. Jumping or diving anywhere that you can't see underwater is unsafe. Watch your children; it only takes 30 seconds for a child to drown.

CAUTION BOATERS

The lake contains underwater obstructions such as trees, stumps, logs, rocks and other debris. Boaters are warned to watch for these unknown hazards especially when the pool level fluctuates. Boat ramps may be slippery due to the growth of algae, other vegetation and mud. PLEASE USE CAUTION.

All Public lands shown in this brochure are governed by the regulations in Parts 1 Title 36, Section 327, U.S. Federal Code of Regulations. Copies of "Rules and Regulations" brochures are available from a Park Ranger, at the Project Office near campground fee booths. All boat, dock and fishing regulations are applicable.

LEGEND

- Mark Twain Lake Normal Pool Elev. 660.0 (ft msl)
- Mark Twain Lake Flood Pool Elev. 673.2 (ft msl)
- Lands Managed by the Corps of Engineers - Open to Hunting/Trapping
- Lands Managed by the Corps of Engineers - Closed to Hunting/Trapping
- Towns
- Lands Managed by the Missouri Dept. of Natural Resources
- Waterfowl Refuge - (Transition boating restricted/hunting during waterfowl season)
- Hard surfaced Roads
- Gravel Roads
- Railroad
- Recreation Area Road System
- Hiking Trails
- Hunter/Fisherman Parking Lots
- Hunter/Fisherman Boat Ramps
- Dry Revolution Markers

STANDARD LAKE MARKERS

- Diamond: Danger
- Red Flag with White Diagonal: Diver-Keep clear 50 yards.
- Diamond with Cross: Boats Keep Out!
- Circle: Controlled area-(explanation within circle)
- Square or Rectangle: Gives Information

If You Love Me...

Make sure you put a life jacket on me before I get near water.

66% of drowning victims would be alive today if they had worn a life jacket.

SIGNING

PUBLIC RECREATION AREAS

	Number Sites	Visitor Center	Boat Ramp	Marina	Food Facilities	Group Picnic Shelter	Campground	Electrical Hookup	Group Campground	Water	Toilet Bldg/Stations	Toilet	Shower	Volleyball/Beach*	Playground	Trails	Picnic	Fish Cleaning	Concession Stand	Shelter Rental	Photo Contest**
M.W. Sandmeier Visitor Center	.5	●			●					●		●				●					
John C. (Jack) Driver	.5					●	●	●				●	●		●						
Ray Behrens	3		●	●	●	●	●			●	●	●	●		●	●		●			
Robert L. Allen	14		○		●								●								
Fourth Fork	18		●		●								●								
Snowy Ike	25		○		●					●			●					●			
Warren G. Sue North Spillway	6	●								●			●			●					
Warren G. Sue South Spillway	6		●		●	●				●			●			●					●
Indian Creek	21		○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
John F. Spalding	4		○		●	●				●		●	●	●	●	●	●	●	●		
Frank Russell	1						●	●		●	●	●			●	●			●		●
Bluffview	14		●		●	●						●				●					
Duane S. Wheeler	4		●													●			●		
Mark Twain St. Pk. & Birthplace	19	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●				
MVT Lot 11	29		●										●			●			●		
North Fork Recreation Area	25		●																		

* Indian Creek beach conserved for registered campers at the Indian Creek Recreation Area.

** A number of campsites are available for reservation in the Indian Creek, Ray Behrens, and Frank Russell areas, minimum 3 day advance notice required.

*** Horse corral is available for Frank Russell equestrian campers only.

- Indicates Handicap facility available
- Indicates high water boat ramp
- Visitor Center closed

Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

Section 1046(d) MDNR Letter_02_28_2018.pdf

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Eric R. Greitens, Governor
Carol S. Comer, Director

MAR 1 2018

The Honorable R.D. James, P.E.
Assistant Secretary of the Army (Civil Works)
108 Army Pentagon
Washington, D.C. 20310-0108

Dear Mr. James:

In accordance with Section 1046(d) of the Water Resources Reform and Development Act, the State of Missouri's Department of Natural Resources (Department) is transmitting the enclosed packet for the purpose of engaging the U.S. Army Corps of Engineers (Corps) to amend our Section 1046(d) plan regarding the State's future use water supply storage in Mark Twain Reservoir.

The State and the Clarence Cannon Wholesale Water Commission (CCWWC) have interconnected contracts with the St. Louis District Corps for 20,000 acre-feet of water supply storage on Mark Twain Reservoir. As provided in these contracts, the State holds the future use water supply and CCWWC holds the present use water supply storage. To date, CCWWC holds 6,250 acre-feet in present use and the State holds the remaining 13,750 acre-feet in present use storage. As of 2016, the CCWWC uses just over 4.12 million gallons per day (MGD), or just over 4,600 acre-feet (approximately 23 percent contracted water supply storage). Due to declining population within the mostly rural CCWWC service area and capacity limitations at the existing water treatment plant and distribution lines, it is unlikely that the CCWWC will need the entire capacity of our joint water storage contract. The State and CCWWC intend to release a portion of our future use water supply storage back to the Federal Government.

Section 1046(d) of the 2014 Water Resources Reform and Development Act provides an opportunity for State or local interests to request release of all or some contracted future use water supply storage back to the Federal Government. On December 31, 2015, the Department submitted a Section 1046(d) plan (enclosed), which linked the release of 5,600 acre-feet future use water supply storage to the condition that the State would have "right of first refusal" for the released storage. In late November 2016 the Department was informed that since the plan linked the "right of first refusal" with the released storage, the Corps would likely place our plan in the Appendix of the upcoming Engineer's Report. It is now our understanding that the Corps' February 2017 Engineers' Report included neither Section 1046(d) plans nor an Appendix of items recommended for disapproval. On August 9, 2017 the Department sent a letter to the (Acting) Assistant Secretary of the Army (Civil Works) Lemont formally retracting the "right of first refusal" request from the release of storage in our Section 1046(d) plan. In addition, due to pending deadlines we were also advised by the St. Louis District to submit a Section 7001 proposal in regard to advancing this item as well.

As part of our Section 1046(d) plan, the Department has developed a timetable for converting future use to present use water supply based on historical population growth, water demand, knowledge of existing regional infrastructure, and have estimated water demand projections for the 14-county CCWWC service area. The State and CCWWC will use it as a guide for conversion of future use to present use water supply from present through contract maturity in 2038.

The State's Section 1046(d) plan includes the following elements.

- The release of 5,600 acre-feet of future use water supply storage
- Retain the overall water supply allocation of 20,000 acre-feet in Mark Twain Reservoir

We appreciate the Corps' partnership with the State in assisting us in meeting our water supply needs and encourage you to advance our Section 1046(d) plan or our Section 7001 proposal in your next Engineer's Report.

Sincerely,

Dru Buntin

Dru Buntin
Deputy Director

Enclosure

c: Maj. Gen. Richard G. Kaiser, Commander, Mississippi Valley Division, USACE
Col. Bryan K. Sizemore, Commander, St. Louis District, USACE
Ms. Cherilyn Plaxco, PCX Technical Director, Little Rock District, USACE
Mr. Joe Gillman, Division Director, Missouri Department of Natural Resources

Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

Nov. 1, 2016 email.pdf

Bacon, Bob

From: Bacon, Bob
Sent: Friday, June 16, 2017 12:30 PM
To: Shawn Sullivan (shawn.f.sullivan@usace.army.mil)
Cc: Rouse, Karen; Prewett, Jerry; Gillman, Joe; Buntin, Dru
Subject: Section 7001 discussion
Attachments: 2017_Sec 7001 RFP FR Notice-07253.pdf

Hi Shawn,

I would like to initiate discussions with you to understand the steps necessary for us to complete a Section 7001 proposal in which to re-submit our Section 1046(d) plan on Mark Twain Reservoir. Please note that the Section 7001 proposal is due by August 9, 2017.

In the meantime, we will brief our leadership on the need for and elements of our Section 1046(d) plan.

Thanks in advance for your help.

Bob Bacon
Bob.Bacon@dnr.mo.gov

Missouri Department of Natural Resources Water Resources Center
1101 Riverside Dr.
Jefferson City, MO 65102

(573) 751-6632 (office)
(573) 751-8475 (fax)

-----Original Message-----
From: Bacon, Bob
Sent: Tuesday, November 01, 2016 12:24 PM
To: 'Sullivan, Shawn F MVS'
Cc: Collier, Andrea; Rouse, Karen; Gillman, Joe
Subject: RE: Section 1046d Submittal-Mark Twain Lake

Hi Shawn,

Yes, it is the currently State's desire to link the "right of first refusal" condition to the release of 5,600 acre-ft. of future use storage in our Section 1046(d) plan.

Also, thank you for confirming that if the State's request is recommended to the Appendix of the ASAs Annual Report to Congress, that a request may be submitted at a later date through the Section 7001 proposal process for future consideration.

Best Regards

Bob Bacon, State Hydrologist

Bob.Bacon@dnr.mo.gov

Missouri Department of Natural Resources Water Resources Center
1101 Riverside Dr.
Jefferson City, MO 65102

(573) 751-6632 (office)
(573) 291-8184 (cell)
(573) 751-8475 (fax)

-----Original Message-----
From: Sullivan, Shawn F MVS [mailto:Shawn.F.Sullivan@usace.army.mil]
Sent: Tuesday, November 01, 2016 11:37 AM
To: Bacon, Bob; Collier, Andrea
Subject: Section 1046d Submittal-Mark Twain Lake

Bob/Andrea, based on our 28 OCT 2016 conference call it is the decision of the State to link the "right of first refusal" condition to the release of 5,600 acre-ft of future use storage. Collectively our assumption is the State's request will be recommended for inclusion in the Appendix of the ASAs Annual Report to Congress.

I was able to confirm that if the State's request is recommended for the Appendix then a request may be submitted through the Section 7001 proposal process for future consideration of inclusion in the Main Report.

Please confirm that I have accurately summarized the State's decision and I will transmit that decision through our vertical team for submission to the ASA.

Thank you,
Shawn Sullivan
U.S. Army Corps of Engineers
Strategic Planning Coordinator
St. Louis District
(o) 314-331-8580
(c) 314-303-4778

Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

MVD Transmittal to HQ.pdf

DEPARTMENT OF THE ARMY
MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

REPLY TO
ATTENTION OF:

26 JUL '16

CEMVD-PD-SP

MEMORANDUM FOR HQUSACE (CECW-MVD), WASH DC 20314-1000

SUBJECT: State of Missouri Request under Authority of Section 1046(d) of Water Resources Reform and Development Act (WRRDA) of 2014

1. References:

a. Memorandum, CEMVD-PD-SP, 24 May 2016, subject: State of Missouri Request under Authority of Section 1046(d) of Water Resources Reform and Development Act (WRRDA) of 2014 (encl 1).

b. Memorandum, CEMVS-PM-F, 28 March 2016, subject: Under Section 1046(d) of WRRDA 2014, CEMVS has received a Plan from the State of Missouri dated December 31, 2015 seeking relief from its contractual obligation to pay the Government for 5,600 acre-feet of future use water supply storage under Contract Between the United States of America and the State of Missouri for Water Storage Space in the Clarence Cannon Dam and Mark Twain Lake Project Salt River, Missouri (DACW43-88-C-0036) (encl 2).

c. Memorandum, CESWD-PDP, 21 March 2016, subject: Water Resources Reform Development Act of 2014 Section 1046(d) Recommendation (encl 3).

d. Water Resources Reform and Development Act of 2014, Public Law No. 113-121, Section 1046(d), 128 Statute 1193, 1254 (2014).

2. MVD has reviewed the referenced documents to include the specific request from the State of Missouri and the recommendation from the Water Management and Reallocation Studies Planning Center of Expertise (PCX). MVD only recommends approval and transmittal to the ASA(CW) those portions and aspects of the state's request that are within the authority of Section 1046(d) WRRDA. MVD does not endorse or recommend the portions of the state's request that fall outside the authority of Section 1046(d) WRRDA as described in the enclosed fact sheet of reference 1.b.

3. Specifically, MVD recommends approval of the state's request to be released from 5,600 acre-feet of future use water supply storage; however, MVD does not endorse or recommend approval of their request for an adjustment of the cost of water supply storage as well as their request for relief of operation and maintenance expenses on future use water supply storage.

4. The basis for the recommendation to release 5,600 acre-feet is because the submission requirement deadline was met, and the state's request contains sufficient documentation to justify the requested action under Section 1046(d) WRRDA 2014. The request is also supported in part by the PCX. MVD finds that the part of the request within authority is legally sufficient and complies with current policy.

5. The state's request for an adjustment of the cost of the water supply storage as well as relief of operation and maintenance expense on future use water supply storage does not fall within the authority of Section 1046(d) WRRDA 2014 and is not recommended for further consideration in this submission.

6. The MVD point of contact for this action is Mr. Philip Hollis, CEMVD-PD-SP, (601) 634-5293.

3 Encls

MICHAEL C. WEHR
Major General, USA
Commanding

DEPARTMENT OF THE ARMY
MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

REPLY TO
ATTENTION OF:

CEMVD-PD-SP

24 MAY '16

MEMORANDUM FOR HQUSACE (CECW-MVD), WASH DC 20314-1000

SUBJECT: State of Missouri Request under Authority of Section 1046(d) of Water Resources Reform and Development Act (WRRDA) of 2014

1. References:

a. Memorandum, CEMVS-PM-F, 28 March 2016, subject: Under Section 1046(d) of WRRDA 2014, CEMVS has received a Plan from the State of Missouri dated December 31, 2015 seeking relief from its contractual obligation to pay the Government for 5,600 acre-feet of future use water supply storage under Contract Between the United States of American and the State of Missouri for Water Storage Space in the Clarence Cannon Dame and Mark Twain Lake Project Salt River, Missouri (DACW43-88-C-3366) (encl).

b. Water Resources Reform and Development Act of 2014, Public Law No. 113-121, Section 1046(d), 128 Stat. 1193, 1254 (2014).

2. Transmitted herein is a memo from the St. Louis District, which includes the endorsement by the Water Management and Reallocation Studies Planning Center of Expertise, the State of Missouri's request under the authority referenced in 1.b. The Fact Sheet from the district has sections both "Within authority of Section 1046(d)" and "Outside of Authority of Section 1046(d)." MVD staff have reviewed and support the request, for your review and transmittal to the ASA(CW).

3. The request by the State of Missouri was made before the January 1, 2016, deadline as required by Section 1046(d) and contains sufficient documentation to justify the requested action. The state and Clarence Cannon Wholesale Water Commission (CCWWC) signed two interconnected contracts for water supply storage in Mark Twain Reservoir with the St. Louis District Corps (Contract Nos. DACW43-88-C-0036 and DACW43-88-C-0037). As per these contracts, the state holds the future use

Encl 1

water supply storage (13,125 acre-feet) while both the CCWWC and the state hold the present use water supply storage (6,875 acre-feet) for a total storage space of 20,000 acre-feet.

4. The request would reduce the state's obligation under Contract No. DACW43-88-C-0036 to pay interest on the future use water supply storage until the year 2038, when the contract matures. The requested reduction of 5,600 acre-feet in future use water supply storage, equates to reducing their bill for interest by $185,000 annually. In addition, the state request release from Operations and Maintenance costs on that future use storage, which would reduce their annual payment for Operations and Maintenance by $58,000. Also, the state requests that the cost per acre-foot be reduced from $877 to $160 per acre-foot, which would equate to an annual cost reduction of $383,577 or 82%. Finally, the state is requesting a change in designation of the future use storage as water supply not under contract with a right of first refusal before the Corps contracts with another entity for the released water supply storage.

5. MVD staff remains prepared to assist the district as may be determined necessary to facilitate USACE resolution of the CUA.

6. The MVD point of contact for this action is Mr. Philip Hollis, CEMVD-PD-SP, (601) 634-5293.

Encl

MICHAEL C. WEHR
Major General, USA
Commanding

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

REPLY TO
ATTENTION OF:

MAR 2 8 2016

CEMVS-PM-F

MEMORANDUM FOR Commander, Mississippi Valley Division, U.S. Army Corps of Engineers, ATTN: CEMVC-PD-SP/Philip Hollis

SUBJECT: Under Section 1046(d) of WRRDA 2014, CEMVS has received a Plan from the State of Missouri dated December 31, 2015 seeking relief from its contractual obligations to pay the Government for 5,600 acre-feet of future use water supply storage under Contract Between the United States of America and the State of Missouri for Water Storage Space in the Clarence Cannon Dam and Mark Twain Lake Project Salt River, Missouri (DACW43-88-C-0036).

1. Per Implementation Guidance (IG) dated June 24, 2015, the Water Management and Reallocation Studies Planning Center of Expertise (PCX) in coordination with the MVD Business Line Manager (BLM) have reviewed the State's Plan and determined that it is complete and have developed a Fact Sheet addressing items (4)(b)(1-4) in the IG.

2. The MVD – District Support Team has requested this Memo, the PCX Endorsement Memo, Fact Sheet, and State's Plan for review and transmittal to the RIT.

3. Per the IG the RIT will transmit recommendations to the ASA(CW).

4. Per Section 1046(d) the ASA(CW) has 180 days from 31 December 2015 to provide a written decision to the State on whether the Secretary recommends releasing future water storage rights.

5. Questions regarding this matter should be directed to Mr. Shawn Sullivan, Strategic Planning Coordinator at 314-331-8580.

for ANTHONY P. MITCHELL
COL, EN
Commanding

Enc 1 2

DEPARTMENT OF THE ARMY
US ARMY ENGINEER DIVISION, SOUTHWESTERN
1100 COMMERCE STREET, SUITE 831
DALLAS TX 75242-1317

REPLY TO
ATTENTION OF

CESWD-PDP

21 March 2016

MEMORANDUM FOR Commander, Mississippi Valley Division

SUBJECT: Water Resources Reform Development Act of 2014 Section 1046(d) Recommendation

1. In general, Section 1046(d) of the Water Resources Reform and Development Act of 2014 (WRRDA 2014) amends the Water Supply Act of 1958, 43 U.S.C. 390b to provide that, until January 1, 2016, the Secretary may accept from a State or local interest (the User) a Plan for the conversion of future use storage to present use within a 10-year timeframe. The Plan shall include a 10-year timetable for conversion of future use storage to present use and a schedule of actions that the User agrees to carry out over a 10-year period, in cooperation with the Secretary to seek new and alternative users of the storage.

2. The St. Louis District received a 1046(d) Plan for future use storage at Mark Twain Reservoir from the State of Missouri Department of Natural Resources on December 31, 2015. The Plan (enclosed) requests: release from 5,600 acre-feet of future use water supply storage, adjustment of the cost of water supply storage, and relief of operation and maintenance expenses on future use water supply storage.

3. Per the timetables provided in the Section 1046(d) Implementation Guidance (enclosed), the Major Subordinate Command (MSC) has an estimated 30-day review period. The MSC may request additional information to be submitted by the User to complete a plan in accordance with the information required in the Implementation Guidance. The MSC and Planning Center of Expertise (PCX) shall supplement the Plan with a Fact Sheet (enclosed). The MSC will transmit each Plan and Fact Sheet to the appropriate Headquarters Regional Integration Team (RIT), who will have 30 days to consolidate and transmit to ASA(CW). ASA(CW) will provide to the User a written decision on whether ASA(CW) recommends release of storage rights not later than June 30, 2016.

4. The Water Management and Reallocation Studies Planning Center of Expertise (WMRS PCX) recommends the release of 5,600 acre-feet of future use storage; however, the WMRS PCX does not recommend the other parts of the User's Plan which are outside of the authority of Section 1046(d).

5. If you have any questions or concerns regarding this review, please contact Ms. Cherilyn Plaxco, CESWD-PDP, at 501-324-5036.

PLAXCO.CHERILYN.GIBBS.1258329674

Digitally signed by PLAXCO.CHERILYN.GIBBS.1258329674
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=PLAXCO.CHERILYN.GIBBS.1258329674
Date: 2016.03.22 15:43:34 -05'00'

Encl

CHERILYN PLAXCO
Technical Director, WMRS PCX

CF: (w/encls)
CEMVD-PD-SP (Hollis)
CEMVS-OD-T (Neher)
CEMVS-PM-F (Sullivan)

Certification of Legal Review

The CEMVS Report which transmits a Plan from the State of Missouri seeking relief from its contractual obligations to pay the United States for 5,600 acre-feet of future use water supply storage in Mark Twain Lake, in accordance with Section 1046(d) of WRRDA 2014, including all associated documents required by law and regulation, has been fully reviewed by the Office of Counsel, St. Louis District and is approved as legally sufficient.

28 March 2016
Date

Office of Counsel, St. Louis District
William P. Levins, District Counsel

Clarence Cannon Dam – Mark Twain Lake - U.S. Army Corps of Engineers St. Louis District Fact Sheet - Section 1046 (d) Water Resources Reform and Development Act of 2014

Within Authority of 1046(d)

1. Missouri Department of Natural Resources requests to release 5,600 acre-feet of their Future Use Water Supply Contract at Clarence Cannon Dam/Mark Twain Lake per Section 1046 (d) of the Water Resources Reform and Development Act of 2014.

    a. **Authority:** The Flood Control Act of 28 June 1938 authorized a dam and reservoir on the Salt River near Joanna, Missouri, as part of a general comprehensive plan for flood control in the Upper Mississippi River Basin. A restudy of the project indicated the feasibility of a multi-purpose development, including hydroelectric power. The project was authorized as such by Sec. 203 of the Flood Control Act of 23 October 1962 (PL 87-874), as recommended by the Chief of Engineers in House Document No. 507, 87th Congress, 2nd Session. The reservoir, originally named the Joanna Reservoir, was officially renamed Clarence Cannon Dam and Reservoir by Public Law 89-298, 89th Congress, 3rd Session on 27 October 1965. Clarence Cannon Dam and Reservoir was officially renamed Clarence Cannon Dam and Mark Twain Lake by PL 97-128, 97th Congress, 29 December 1981.

    b. **Forgone Revenues:** The State of Missouri currently pays $364K annually for future use storage. If allowed to reduce their future use storage commitment by 5,600 acre-feet, their bill for the interest would be reduced by $185K annually.

    c. **Possible Alternative Uses for Released Future Use:** The authorized purposes of the project are flood risk management in the Salt River Basin, hydroelectric power generation, water supply, fish and wildlife conservation, recreation, and incidental navigation. There is no proposal to alter the current Water Control Plan so the released future use storage will remain in the lake as it now does and be used for fish and wildlife conservation and recreation.

    d. **Estimated Cost of any Operational Changes to convert Future Use storage to other uses:** There is no expected increase in operation costs associated with the conversion of the proposed Future Use Storage to alternative uses.

Outside Authority of 1046(d)

1. The State requests release from Operations & Maintenance costs on future use storage.

    a. Reducing the State of Missouri's water storage by 5,600 acre-feet would reduce their annual payment for O&M costs by $58K.

2. The State requests that the cost per acre foot (approximately $877) be reduced to bring the cost of the remaining water supply storage in line with other USACE storage. The State requests a cost of storage of $160 per acre-foot.

    a. That would decrease their bill by 82% or $383,577 off their existing bill.

3. The State requests that water storage that is released back to the Federal Government be retained and placed in water supply designated as "not under contract" such that the overall water supply storage allocation of Mark Twain Reservoir continue to hold 20,000 acre-feet of water supply storage and they also requests the right of first refusal before USACE contracts with another entity for the released water supply storage.

    a. This would eliminate the possibility of the Federal Government recouping the lost revenues already listed above ($185K in interest and $58K in O&M).

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

December 31, 2015

Mr. Lynn Neher (OD-T)
U.S. Army Corps of Engineers
1222 Spruce Street
St. Louis, MO 63103

Dear Mr. Neher:

In accordance with Section 1046(d) of the Water Resources Reform and Development Act, the State of Missouri's Department of Natural Resources (State) is transmitting the attached plan for the purpose of engaging the U.S. Army Corps of Engineers (Corps) on the issue of the State's future use water supply storage contract at Mark Twain Reservoir. According to the Corps' December 4, 2015 email, the State understands we will have opportunity, by submitting this plan, to discuss with the Corps the content of the Section 1046(d) plan, schedule and proposals, and make modifications as needed to finalize the plan prior to March 31, 2016 and subsequent review by the Assistant Secretary of the Army and Congress.

The State has considered the costs, feasibility of converting storage to present use, and the needs of Clarence Cannon Wholesale Water Commission (CCWWC). To estimate future water supply demand, the State has worked with the CCWWC and has made regional water demand projections for the 12-county area surrounding Mark Twain Reservoir.

The State's Section 1046(d) proposal includes the following elements:

- Requests to amend the water supply contract to –
  - Adjust the cost of water supply storage in line with other mid-western Corps Districts
  - Retain the overall water supply storage allocation of 20,000 acre-feet in Mark Twain Reservoir
- Consideration of the release of 5,600 acre-feet of future use water supply storage back to the Federal Government
- Relief of operation and maintenance expenses on future use water supply storage
- Timetable for conversion of future use to present use through contract maturity
- Schedule of actions that the State and/or CCWWC will conduct to promote water supply development

The State appreciates this opportunity to work with the Corps to chart a path forward that meets the State's water supply needs at a proportionate investment level. Thank you for your partnership and support.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Sara Parker Pauley

Sara Parker Pauley
Director

c: Ms. Cherilyn Plaxco, U.S. Army Corps of Engineers, 700 W Capitol #7402, Little Rock, AR 72201

Recycled Paper

Plan and Schedule for Future Use Water Supply Storage
Clarence Cannon Dam and Mark Twain Lake Project, Salt River, Missouri

PURPOSE: The purpose of this document is to fulfill the requirements of the Water Resources Reform and Development Act of 2014 (WRRDA 2014), Section 1046(d) by submitting a plan to the U.S. Army Corps of Engineers (Corps). Section 1046(d) of this Act provides an opportunity for state or local interests to request release of all or some contracted future use water supply storage. The requirements of this plan include: i) a 10-year timetable for the conversion of future use to present use; and ii) a schedule of actions to carry out over a 10-year period to seek new and alternative users of future water storage.

AUTHORIZATION: The construction of Mark Twain Reservoir was authorized by the Flood Control Act of 1962 (Public Law 874, 87th Congress). This reservoir serves the following authorized purposes: Fish and Wildlife, Hydroelectric Power, Flood Control, Recreation, Navigation (incidental), Water Supply, and Water Quality (P.L. 87-874 and P.L. 75-761).

BACKGROUND: In 1965, the State of Missouri's 73rd General Assembly, through House Bill No. 95 (March 3, 1965), approved the State to contract with the Federal Government on water supply. On April 8, 1965, the State signed a water supply assurance letter in which the State of Missouri (State) requested that the Federal Government include approximately 20,000 acre-feet of water supply storage in the Project (Water Supply Assurance Letter, Attachment B). With the Water Supply Assurance Letter from the State, the Corps was able to design and construct the reservoir with 20,000 acre-feet of water supply storage, which is the project's original water supply storage allocation. The fact that the Corps constructed the reservoir with 20,000 acre-feet of original storage for water supply is documented in multiple sources, including the State's water supply contract with the Corps. Article 1(a) of our contract on Project Construction, states that between reservoir elevations 567.2 feet mean sea level and 606 feet mean sea level the project has 20,000 acre-feet of storage allocated for water supply. Construction of the Mark Twain Reservoir began in 1969 and was completed in 1983.[1] On March 10, 1988, the State and Clarence Cannon Wholesale Water Commission (CCWWC) signed two interconnected contracts for water supply storage in Mark Twain Reservoir with the St. Louis District Corps (Contract No DACW43-88-C-0036 and No DACW43-88-C-0037, Appendix C). As per these contracts, the State holds the future use water supply storage and the CCWWC holds the present use water supply storage.

WRRDA 2014, Section 1046(d) provides an opportunity for state or local interests to release all or a portion of their future use water supply storage that was allocated prior to November 17, 1986. The St. Louis District Corp has informed the State of Missouri that they have received guidance that while the contract was signed after 1986, negotiations had been initiated prior to 1986 with assurances as far back as 1965, and therefore the contract falls within the spirit of the legislation (Appendix D).

SECTION 1046(d) PLAN: The State has based this plan on historical water demand, knowledge of regional existing water supply infrastructure needs, and estimated water demand projections until end of contract (2038). However, as part of the plan we intend to conduct a detailed regional water supply development study to better estimate future water supply needs (see Schedule of Actions below). The State's conservative projections until 2038 (when the contract matures) indicate that this region has water demands of 14,400 acre-feet.

PROPOSALS UNDER the SECTION 1046(d) PLAN: The following requests are submitted as the State's Plan to obtain relief of both future use water supply storage and related undue financial burden.

- Release 5,600 acre-feet of future use water supply storage back to the Federal Government and requests right of first refusal before the Corps contracts with another state or local entity for this released water supply storage.
- Request for an immediate waiver of all Operation and Maintenance (O&M) billed on future use water supply storage. It is the State's understanding that other Corps districts do not charge state or local interests for O&M costs on future use water supply, since this water storage is not under local control or use.

TIMETABLE FOR THE CONVERSION OF FUTURE USE TO PRESENT USE: This timetable is based on historical population growth, water demand, knowledge of regional existing infrastructure water supply needs, and estimated water demand projections until contract maturity (2038) detailed in Table A-1 in Appendix A. The following is an estimated schedule that both the State and CCWWC will use as a guide in calling future use water supply in to service.

- 2016 – The State will release 5,600 acre-feet of 'future use' water supply back to the Federal Government.
- 2016 – Jointly conduct a detailed regional water supply development study, to expand upon the basic demand projections used in this plan (anticipated completion by 2017).
- 2017 - The CCWWC have proposed to call 1,388 acre-feet from future use to present use to bring their present use allocation up to the amount they have under contract with member municipalities.
- 2018 - The CCWWC may call 2,000 acre-feet from future use to present use to meet water demand from a confined animal feeding operation.
- 2023 - The CCWWC may call 4,600 acre-feet from future use to present use to meet water demand from an ethanol plant.
- 2023-2038 - The CCWWC will propose to call the remaining future use storage to present use based on projected population demand for water.
- 2038 (upon contract maturity) - The State plans to have converted all future use storage to present use; the CCWWC should have 14,400 acre-feet in present use and the Corps should have 5,600 acre-feet designated in water supply as "not under contract".

SCHEDULE OF ACTIONS: The State and/or the CCWWC, either in partnership or individually, will conduct the following actions to promote the development of water supply to promote moving future use water supply into present use.

- Provide funds to conduct a water supply development study.
- Engage with municipalities or water districts within the region where the CCWWC could expand to deliver water .
- Inform municipalities and water districts of the benefits and availability of regional water supply.
- Encourage industrial growth to this region (Economic Development, Counties, and Chamber of Commerce).
- Work in partnership to convert future use storage to present use, using the above timetable as a guide.

REQUESTS: The following requests are submitted in addition to the Section 1046(d) plan and could be considered separately; however, the State would like to engage in serious discussion on these issues.

- The water supply storage within Mark Twain reservoir is considered 'original storage', which was allocated at the time of construction. This water supply storage in Mark Twain reservoir is very expensive storage (approximately $877 per acre-foot) and is quite possibly the most expensive storage of any Midwestern Corps reservoir. Although, the State believes that we should pay our fair share, we do request some relief to bring the cost of the remaining water supply storage in line with other Corps projects. The State believes that a more reasonable cost of storage should be around $160 per acre-foot, which is the average cost for water supply storage among the Omaha, Kansas City, St. Louis, Memphis, Little Rock, Tulsa, and Ft. Worth Corps Districts[2]. The State is open for discussion on alternatives and requests to discuss the matter further.

- Section 1046(d) of WRRDA 2014 did not address what would happen to future use water supply that is released back to the Federal Government. Since water supply is such an important use, the State requests that the water storage that is released back to the Federal Government be retained and placed in water supply designated as "not under contract." Specifically, the State requests that the Corps to not reduce the overall water supply storage allocation of Mark Twain Reservoir and continue to hold the 20,000 acre-feet under water supply. The State also requests right of first refusal before the Corps contracts with another state or local entity for this released water supply storage.

ENDNOTES:

[1] U.S. Corps of Engineers (Corps), St. Louis District. 2015. Mark Twain Lake Master Plan; Clarence Cannon Dam and Mark Twain Lake.

[2] U.S. Corps of Engineers (Corps), Institute of Water Resources. 2015. 2014 Municipal, Industrial, Irrigation Water Supply Database Report. 2015-R-02.

Appendix A

POPULATION AND WATER DEMAND PROJECTIONS: Historic population in 12 counties (Audrain, Howard, Knox, Lewis, Macon, Marion, Monroe, Montgomery, Pike, Ralls, Randolph, and Shelby), and 14 cities (Bowling Green, Curryville, Edina, Farber, Huntsville, La Belle, Lewistown, Madison, New London, Paris, Perry, Shelbyville, Vandalia, and Wellsville) were examined. Population for nine Public Water Supply Districts (Knox Co. PWSD#1, Lewis Co. PWSD#1, Shelby Co. PWSD#1, Marion Co. PWSD#1, Macon Co. PWSD#1, Cannon Co. PWSD#1, Thomas Hill PWSD#1, Monroe Co. PWSD#2 and Pike Co. PWSD#1) were projected. Population and water demand projections were developed for the time period from 2015 to 2038. Missouri State Office of Administration population projections are available from 2000 to2030 but no population projections currently available at the county level from 2030 to 2038. As a result, the population projections were developed using the following methods:

1. Two types of population projections were made – first, a linear (straight-line) population projection and second method based on births, deaths and immigration data.
2. To generate projections using the second method, data on births, deaths and immigration were obtained for 2000 to2030 from Missouri Department of Health and Senior Services. Three types of projection scenarios were developed – a base-case low, a medium and high growth scenario. The population was estimated as:

$$\text{Population}_t = \text{Population}_{t-1} + \text{Births}_t - \text{Deaths}_t + \text{Net Migration}_t$$

where t = current year
t-1= previous year

3. The population projections from 2030 to 2038 were calculated based on a moving average population for the past 15 years and a standard deviation. The projections that were developed are very conservative and did not deviate much from the historic average population growth rate.
4. For each county and city, historical population data from 1900 to 2010 were compiled. The growth rates that were the lowest and highest were identified. Medium growth was derived as an average between low growth and high growth scenarios.
5. The population served, the average daily use, and maximum daily use were obtained from Missouri Department of Natural Resources Drinking Water Watch data. The average per capita demand was calculated by dividing the water use (gallons per day) by the population. The water demand was calculated as:

$$\text{Water demand} = \text{Population} \times \text{Average per capita water demand}$$

6. The final water demand for Clarence Cannon service area was calculated as a sum of water demanded by the nine public water supply districts and the 14 cities.

ASSUMPTIONS:

1. Linear or straight-line projections from 2030 to 2038 were computed by assuming that the population for each county would grow at the same average rate as would occur from 2025 to 2038. Each county population growth rate was held constant between 2025 and 2038.
2. Similarly, the linear projections from 2010 to 2038 for each city were assumed to grow at the same pace as 2000 to 2010. In other words, the county population growth rate would be constant between 2000 and 2038.
3. For counties and cities with a declining trend in population, the population is held constant at the 2010 level, the rationale being that the city or county would not reduce their water demand and would at least demand the same amount of water going forward.
4. It is assumed that a 100-head dairy cattle confined animal feeding operation with a water demand of 1.785 million gallons per year (2,000 acre-feet) is assumed to be attracted to the Clarence Cannon service area in 2019. Each dairy cow demands about 50 gallons per day of water.
5. It is assumed that an ethanol plant with a plant capacity of 1 million gallons per year capacity demanding 4,600 acre-feet would be attracted to the Clarence Cannon service area in 2023.
6. On an average, an ethanol plant would demand about 3.8 gallons of water per gallon of ethanol produced.

RESULTS:

The population projections and water demand for the Clarence Cannon service area were developed under three scenarios as low, medium and high. As of 2014, the CCWWC provides water to a population of 73,776 with a water demand of 4,807 acre-feet. By 2038, the population is estimated to grow to 81,061 (low), 95,580 (medium) and 113,211 (high). Correspondingly, the water demand is estimated to 6,506 acre-feet (low), 7,662 acre-feet (medium) and 8,901 acre-feet (high).

It is assumed that a confined animal feeding operation would be attracted to the region in 2019 with an increased water demand of 2,000 acre-feet and an ethanol plant would start in the region in 2023 with an increased water demand of 4,600 acre-feet.

With the increased water demand from population growth, confined animal feeding operation and ethanol, in 2038 the final water demand for the region is estimated to be 14,400 acre-feet.

DATA SOURCES:

Missouri Office of Administration – Population Projections 2000-2030, Survival Rates
Missouri Department of Health and Senior Services – Births, Deaths and Vital Statistics.
Missouri Census Data Center – IRS Migration data, 1900-1990 city pop. and economic profiles
Missouri Department of Natural Resources – Drinking Water Watch and Northwest Missouri
Missouri Department of Natural Resources, Water Resources Center, Phase I Report, 2007
Bureau of Labor Statistics – Labor force data

Table A-1. Water Storage for State of Missouri, Clarence Cannon Commission and US Army Corps of Engineers (Acre-feet)

Year	State of Missouri	Change	CCWWC Storage	Change	Description
2015	13,750	0	4,807	17	Population demand
2016	13,733	5,600	4,824	55	Release to the Corps - 5,600 AF
2017	8,133	59	4,879	1,388	Water Demand Increase in Service Area
2018	8,074	61	6,267	59	Population demand
2019	8,013	2,065	6,326	61	CAFO + 2,000 AF
2020	5,948	67	6,387	2,065	Population demand
2021	5,881	57	8,452	67	Population demand
2022	5,824	63	8,519	57	Population demand
2023	5,761	4,663	8,576	63	Ethanol Plant + 4,600 AF
2024	1,098	65	8,639	4,663	Population demand
2025	1,033	64	13,302	65	Population demand
2026	969	67	13,367	64	Population demand
2027	902	65	13,431	67	Population demand
2028	837	69	13,498	65	Population demand
2029	768	71	13,563	69	Population demand
2030	697	72	13,632	71	Population demand
2031	625	79	13,703	72	Population demand
2032	546	81	13,775	79	Population demand
2033	465	81	13,854	81	Population demand
2034	384	178	13,935	81	Population demand
2035	206	75	14,016	178	Population demand
2036	131	26	14,194	75	Population demand
2037	105	105	14,269	26	Population demand
2038	0	0	14,295	105	Population demand

Figure A-1. Clarence Cannon Water Demand Scenarios from population growth (without CAFO and Ethanol Plant)

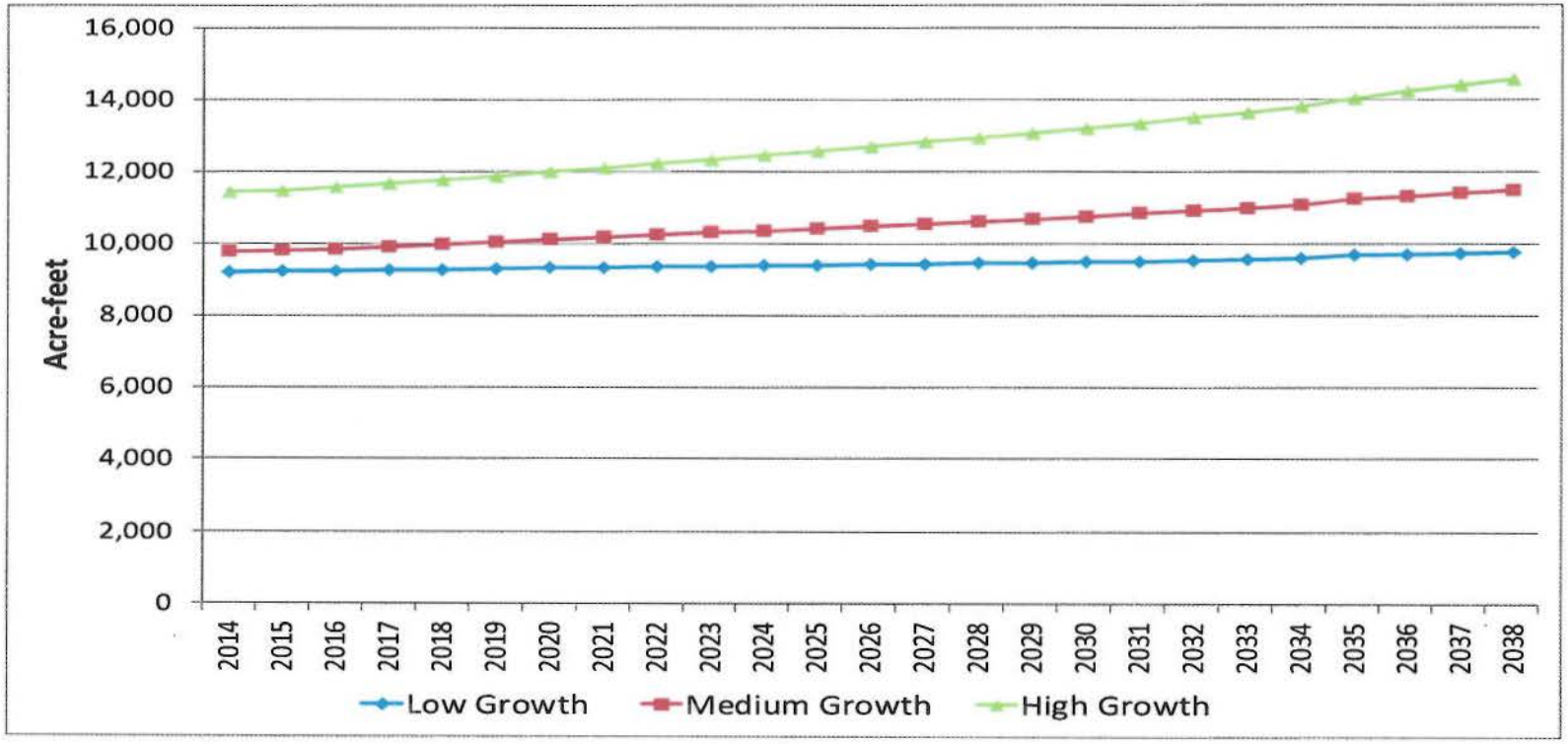


Figure A-2. Water Storage, 2015-2039

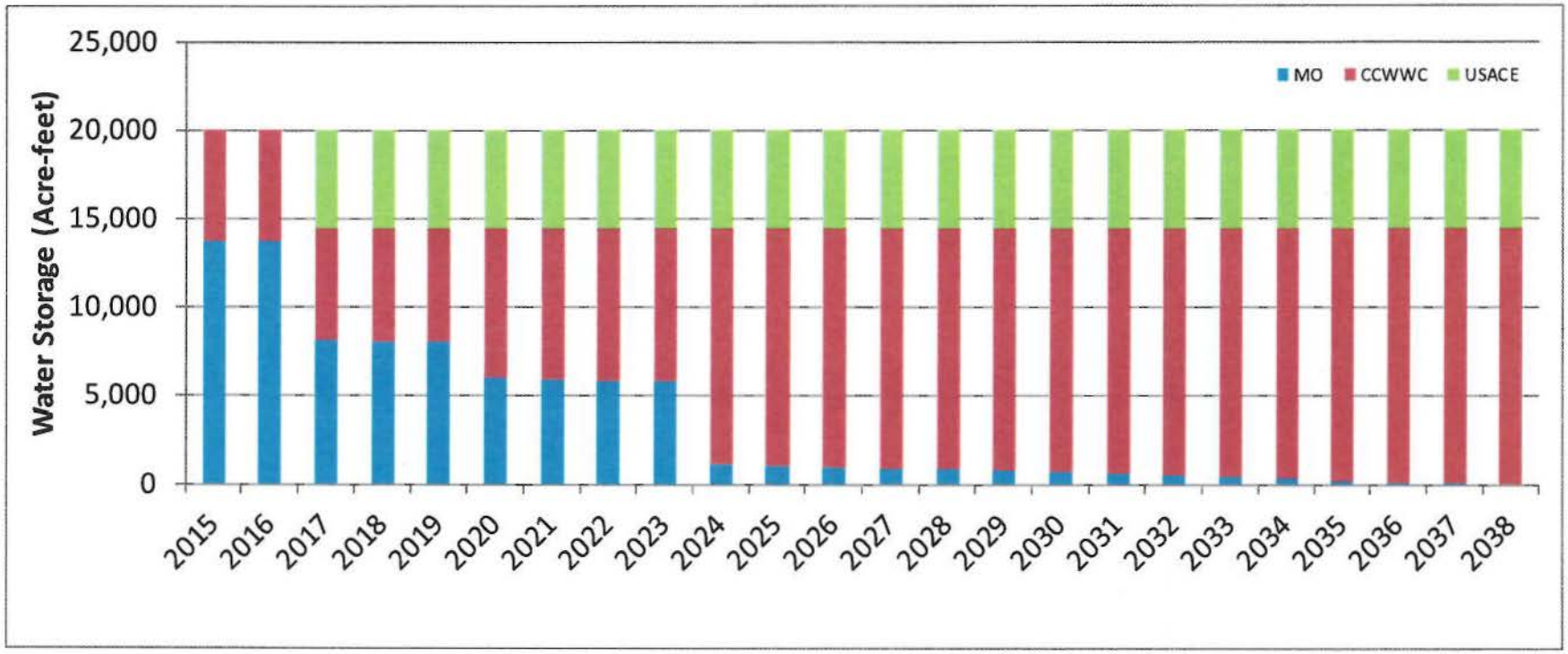
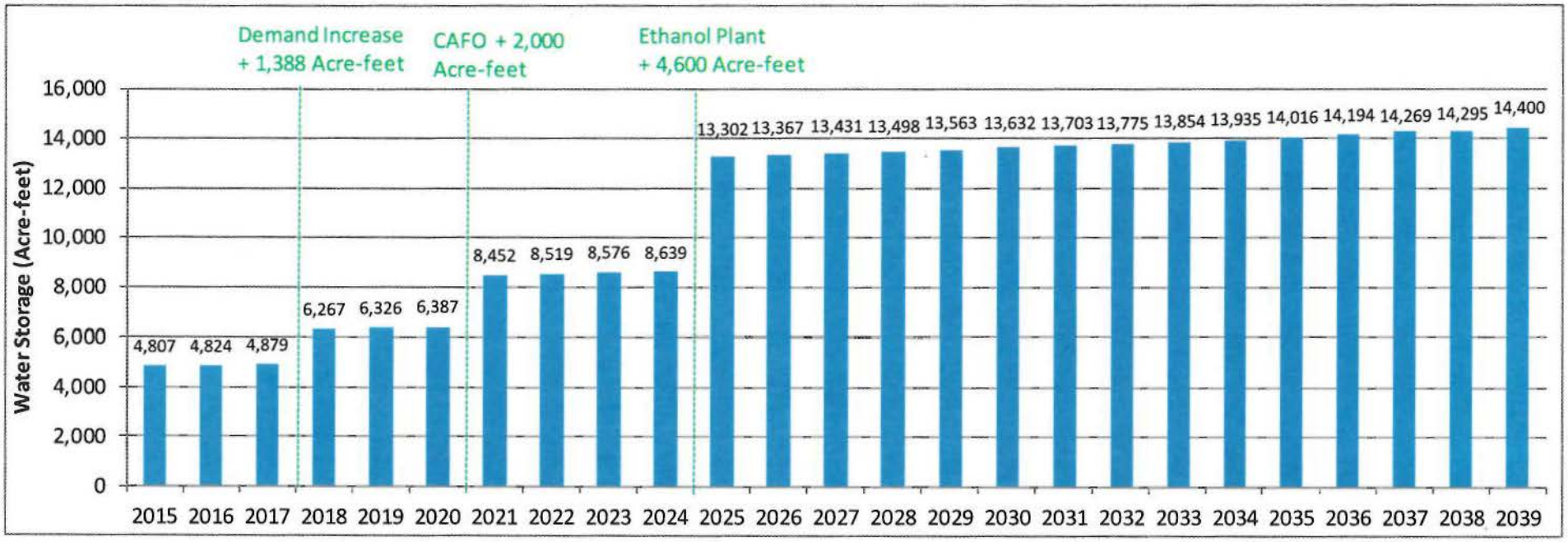
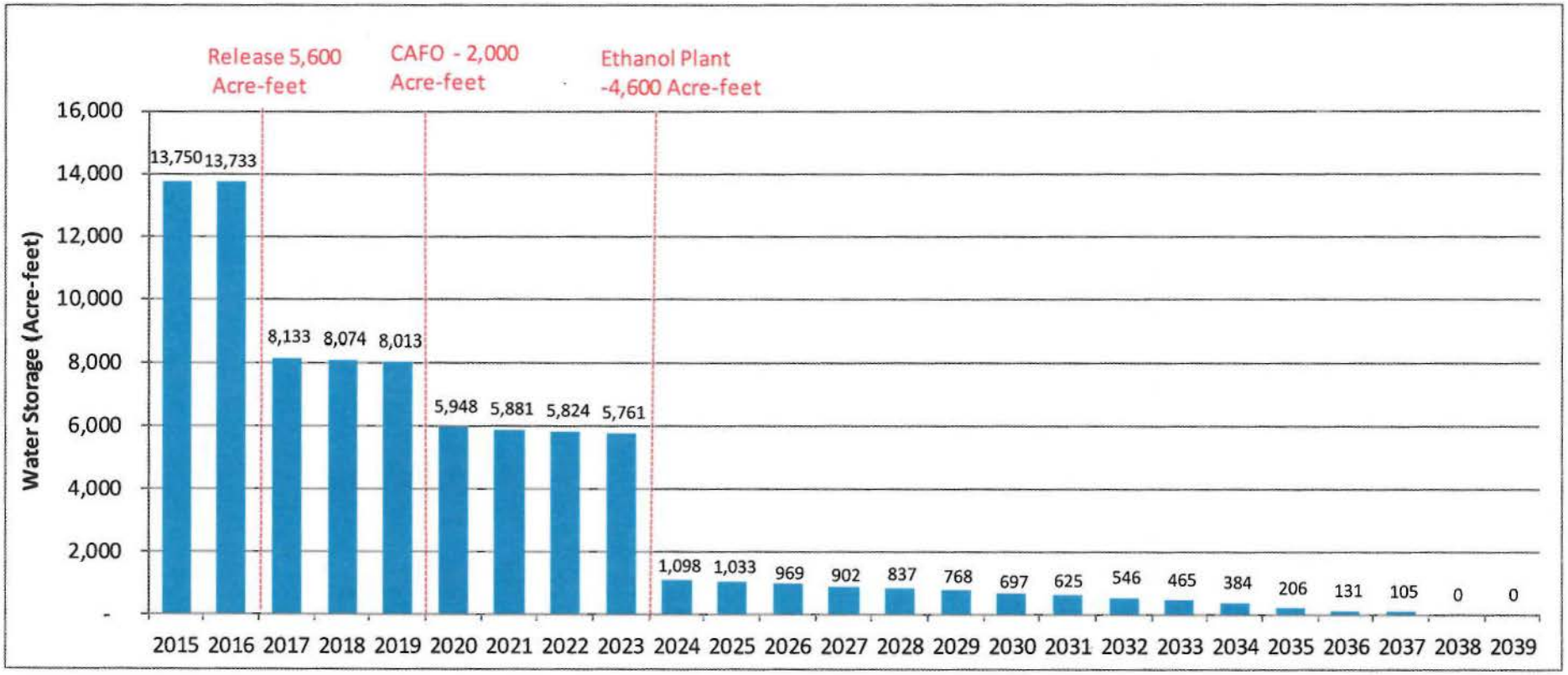


Figure A-3. Clarence Cannon Water Storage 2015-2039 (Acre-feet)



*As of 2014, Clarence Cannon Wholesale Water Commission has 1,388 acre-feet of unused storage under contract.

Figure A-4. State of Missouri Water Storage 2015-2039 (Acre-feet)



Appendix B

ASSURANCES ON WATER SUPPLY

JOANNA RESERVOIR, SALT RIVER, MISSOURI

WHEREAS, the Flood Control Act of October 23, 1962 (Public Law 87-874; 76 Stat. 1173, 87th Congress, Second Session) authorized the construction of the Joanna Reservoir, Salt River, Missouri, for flood control and other purposes; and

WHEREAS, under the provisions of the Water Supply Act of 1958 (Title III, P. L. 85-500), as amended by Section 10 of P.L. 87-88, approved July 20, 1961, water supply storage for municipal or industrial uses may be included in any reservoir project planned by the Corps of Engineers, provided that before construction or modification of any project including water supply provisions for present demand is initiated, State or local interests shall agree to pay for the cost of such provisions, and provided further that not to exceed 30 percentum of the total estimated cost of any project may be allocated to anticipated future demands where State or local interests give reasonable assurances, and there is reasonable evidence, that such demand for the use of such storage will be made within a period of time which will permit paying out the cost allocated to water supply within the life of the project; and,

WHEREAS, the provisions of the Water Supply Act of 1958, as amended, are recognized as being applicable to the authorized Joanna Reservoir Project; and,

WHEREAS, The State of Missouri considers that the Joanna Reservoir on the Salt River is a desirable source of future water supply.

NOW, THEREFORE, BE IT RESOLVED BY The State of Missouri, acting by and through its Water Resources Board:

1. That the State of Missouri is fully cognizant of the provisions of the Water Supply Act of 1958, as amended, and the requirements for payment of the allocated costs of the water supply storage, including interest during construction and interest on the unpaid balance, annual operation and maintenance costs, and replacement costs.

2. That the State of Missouri is fully cognizant of the plan for the construction and operation of the Joanna Reservoir Project insofar as water supply provisions are concerned and the water supply services to be provided by the project. It agrees that projections of future water needs are concurred in and are consistent with local projections and that the State's plan for future water supply will be directed toward utilizing the project water supply services under suitable repayment arrangements.

3. That the State of Missouri does hereby request the Corps of Engineers, U. S. Army, to include 20,000 acre-feet of water supply storage in the project which is estimated to yield nine million gallons per day at the project site for its future water supply needs.

4. That the State of Missouri recognizes the responsibility of repayment to the United States of all costs allocated to the requested water supply storage.

5. That the State of Missouri hereby gives assurance that demand for the use of such storage will be made within a period of time which will permit paying out the costs allocated to water supply within the life of the project.

IN WITNESS WHEREOF, by authority of the 73rd General Assembly of the State of Missouri (House Bill No. 95 approved March 3, 1965), the Water Resources Board of the State of Missouri has adopted this Resolution this 8th day of April , 1965.

Haysler A. Poague, Chairman

Joseph R. Snyder, Vice-Chairman

Earl R. Schultz, Member

Will W. Johnson, Member

Jay B. Dillingham, Member

James C. Kirkpatrick, Secretary of State

Appendix C

FILE

WHOLE SALE
WATER SUPPLY
ST. OF MO.

DACW43-88-C-0036
CONTRACT NO.
DATE: 88MAR10

CONTRACT BETWEEN THE UNITED STATES OF AMERICA

AND

THE STATE OF MISSOURI

FOR

WATER STORAGE SPACE IN THE CLARENCE CANNON DAM AND
MARK TWAIN LAKE PROJECT, SALT RIVER, MISSOURI

MAR 30 1988
RECEIVED

THIS CONTRACT, entered into this 10th day of March, 19 88, by and between THE UNITED STATES OF AMERICA (hereinafter called the "GOVERNMENT") represented by the Contracting Officer executing this contract, and the STATE OF MISSOURI (hereinafter called the "STATE");

WITNESSETH THAT:

WHEREAS, the Flood Control Act of 1962 (Public Law 874, 87th Congress), authorized the construction, operation, and maintenance of the Clarence Cannon Dam and Mark Twain Lake Project, Salt River, Missouri, and

WHEREAS, the STATE did on April 8, 1965, execute ASSURANCES ON WATER SUPPLY, JOANNA RESERVOIR, SALT RIVER, MISSOURI, (Now entitled Clarence Cannon Dam and Mark Twain Lake Project), in which the STATE did request that the GOVERNMENT include approximately 20,000 acre feet of water supply storage in the Project and did further provide certain assurances regarding future demands for water supply from the Clarence Cannon Dam and Mark Twain Lake Project; and

WHEREAS, the State, with the concurrence of the GOVERNMENT, has allotted a portion of the water supply storage that has been included in the Project consisting of 6,875 acre feet of water, to the Clarence Cannon Wholesale Water Commission, hereinafter called the COMMISSION, which said Commission shall enter into a separate contract with the GOVERNMENT and the State for said allocated portion of the water supply storage, and

WHEREAS, the STATE does desire to contract with the GOVERNMENT for the use of the remainder of the storage in the Project for municipal and industrial water supply, and, subject to the limitations and conditions stated herein, for payment of the cost thereof in accordance with the provisions of the Water Supply Act of 1958, as amended, and

WHEREAS, the STATE, by authority of the 73rd General Assembly of the State of Missouri (House Bill No. 95, approved March 3, 1965) is empowered to contract with the GOVERNMENT, and except as limited herein, is vested with all necessary powers of accomplishment of the purposes of this contract.

NOW, THEREFORE, the GOVERNMENT and the STATE agree as follows:

ARTICLE 1 - WATER STORAGE SPACE.

(a) Project Construction. The GOVERNMENT, subject to the directions of Federal law and any limitations imposed thereby, has designed and constructed the Project so as to include therein space for the storage of water for water supply. The Project has usable storage space between elevations 567.2 feet above mean sea level and 606 feet above mean sea level, which usable storage space is estimated to contain approximately 20,000 acre feet for water supply after adjustment for sediment deposits. The 20,000 acre feet of water supply storage equates to an average availability of 16,000,000 gallons of water per day (g.p.d.) for withdrawal.

(b) Rights of STATE.

(1) The STATE shall have the right to utilize an undivided 65.63 percent (estimated to contain 13,125 acre feet of water, which equates to an average availability of 10,500,000 g.p.d.) out of the usable water supply storage space in the Project. This storage space is to be used to impound water for anticipated future demand or need for municipal and industrial water supply. This storage space may be increased in accordance with Article 7, up to a maximum of 20,000 acre feet.

(2) The STATE shall have the right to withdraw water from the lake, subject to the provisions of Article 1(c), in the amounts provided by this contract and any amendments hereto, whenever the water level is above 567.2 feet mean sea level; and shall have the right to construct all such works, plants, pipelines, and appurtenances as may be necessary and convenient for the purpose of diversion or withdrawals, subject to the approval of the Contracting Officer as to design and location. The Contracting Officer shall approve any reasonable plans within 60 days of submission to GOVERNMENT. The grant of an easement for right-of-way, across, in and upon land of the GOVERNMENT at the Project shall be by a separate instrument in a form satisfactory to the Secretary of the Army or his designated representative, without additional cost to the STATE, under the authority of and in accordance with the provisions of 10 U.S.C. 2669 and such other authorities as may be necessary. Subject to the conditions of such easement, the STATE shall have the right to use so much of the Project land as may reasonably be required in the exercise of the rights and privileges granted under this contract.

(c) Rights Reserved. The GOVERNMENT reserves the right to maintain at all times a minimum downstream release of 50 cubic feet per second through the gates or spillway of the dam which amount shall not be allocated to the water supply storage space subject to this contract; and to lower the water in the Project to elevation 590 feet above mean sea level during such periods of time as are deemed necessary, in its sole discretion, for hydropower generation purposes. Such operations, however, shall not prevent the STATE from withdrawing water from the water supply storage subject to this contract, subject to the availability of such water. The GOVERNMENT further reserves

the right to take such measures as may be necessary in the operation of the Project to preserve life and/or property, including the right not to make downstream releases during such periods of time as are deemed necessary, in its sole discretion, to inspect, maintain, or repair the Project.

(d) Quality of Water. The STATE recognizes that this contract provides storage space for raw water only. The GOVERNMENT makes no representations with respect to the quality of water and assumes no responsibility therefor, or for the treatment of the water.

(e) Sedimentation Surveys.

(1) Sedimentation surveys will be made by the Contracting Officer during the term of this contract at intervals not to exceed fifteen (15) years unless otherwise agreed to in writing by both parties. When, in the opinion of the Contracting Officer, the findings of such survey indicate any project purpose will be affected by unanticipated sedimentation distribution, there shall be an equitable redistribution of the sediment reserve storage space among the purposes served by the Project including municipal and industrial water supply. The total available remaining storage space in the Project will then be divided among the various Project features in the same ratio as was initially utilized. Adjusted pool elevations will be rounded to the nearest one-half foot. Such findings and the storage space allocated to municipal and industrial water supply shall be defined and described as an exhibit which will be made a part of this contract and the reservoir regulation manual will be modified accordingly.

(2) The GOVERNMENT assumes no responsibility for deviations from estimated rates of sedimentation, or the distribution thereof. Such deviations may cause unequal distribution of sediment reserve storage greater than estimated, and/or encroachment on the total storage at the Project, however, in such case, any deviation of storage will be equitably distributed as provided in Article 1(e)(1) above.

ARTICLE 2 - Regulation of and Right to Use of Water. The regulation of the use of water withdrawn or released from the aforesaid storage space alloted to the STATE shall be the sole responsibility of the STATE. The STATE has the full responsibility to acquire in accordance with State laws and regulations, and, if necessary, to establish or defend, any and all water rights needed for utilization of the storage provided under this contract. The GOVERNMENT shall not be responsible for diversions from the reservoir by others but shall take every reasonable action to prevent such diversions. The GOVERNMENT will not become a party to any controversies involving the use of the storage space by the STATE except as such controversies may affect the operations of the GOVERNMENT, or when its interests are essential to establishing or defending the rights of the STATE hereunder.

ARTICLE 3 - Operation and Maintenance. The GOVERNMENT shall operate and maintain the Project and the STATE shall pay to the GOVERNMENT a share of the costs of such operation and maintenance as provided in Article 5. The STATE

shall be responsible for operation and maintenance of all installations and facilities which it may construct for the diversion or withdrawal of water, and shall bear all costs of construction, operation and maintenance of such installations and facilities.

ARTICLE 4 - Measurement of Withdrawals and Releases. The STATE agrees to furnish and install, without cost to the GOVERNMENT, suitable meters or measuring devices satisfactory to the Contracting Officer for the measurement of water which is withdrawn from the Project by any means other than through the Project outlet works. The STATE shall furnish to the GOVERNMENT monthly statements of all such withdrawals. For the purpose of determining payments hereunder, and use of storage space, measurement of water withdrawals shall be as it enters any facility employed by the STATE for preparing water for delivery to others. Prior to the construction of any facilities for withdrawal of water from the Project, the STATE will obtain the Contracting Officer's approval of the design, location and installation of the facilities including the meters or measuring devices. Such devices shall be available for inspection by GOVERNMENT representatives at all reasonable times. Releases from the water supply storage space through the Project outlet works shall be made in accordance with written schedules furnished by the STATE and approved by the Contracting Officer and shall be subject to Article 1(c). The measure of all such releases shall be by means of a rating curve of the outlet works, or by such other suitable means as may be agreed upon prior to use of the water supply storage space.

ARTICLE 5 - Payments. In consideration of the right to utilize the aforesaid storage space in the Project for municipal and industrial water supply purposes, the STATE shall pay the following sums to the GOVERNMENT:

(a) Project Investment Costs.

(1) The STATE shall repay to the GOVERNMENT, at the times and with interest on the unpaid balance as hereinafter specified, the amounts stated below which, as shown in Exhibit "A" attached to and made a part of this contract, constitute the entire estimated amount of the construction costs, including interest during construction, allocated to the water storage rights acquired by the STATE under this contract. The interest rate used for purposes of computing interest during construction is 3.22 percent, and the interest rate to be used for purposes of computing interest on the unpaid balance has been determined by the Secretary of the Treasury as of the beginning of the fiscal year in which construction of the Project was initiated on the basis set forth in the Water Supply Act of 1958, as amended. For this Project, construction of which was initiated in FY 1966, this interest rate is 3.22 percent. The STATE shall repay:

3.91 percent (1) of the total Project joint use construction costs, estimated at	$ 9,385,090
Interest during construction	$ 2,125,334
Total estimated amount of Project investment costs allocated to water supply under this contract	$11,510,424

(1) Repayment Percentage = 5.96 (Percent of Project joint use construction) (costs allocable to water supply) X
13,125 (acre feet available under this contract)
20,000 (total acre feet in Project)

The percentage (3.91) has been rounded to two decimal places.

(2) The entire amount of the Project investment costs allocated to the water supply storage space under this contract, presently estimated at $11,510,424 on the basis of the costs presented in Exhibit "A", is for anticipated future use for municipal or industrial water supply. When the use of all or a portion of the said water supply storage space is initiated and that portion becomes present use water storage space, payments for said portion shall be initiated as indicated in Article 5(a)(3). The amount of the Project investment costs allocated to the storage for present demand shall be paid within 50 years from the date of the approval of this contract by the Assistant Secretary of the Army (Civil Works). The payments shall be in equal annual consecutive installments, the first of which shall be due and payable within 30 days of first use of storage. Annual installments thereafter will be due and payable on the anniversary date of the first such payment. Except for the first payment which will be applied solely to the retirement of principal all installments shall include accrued interest on the unpaid balance at the rate provided above. The last annual installment shall be adjusted upward or downward when due to assure repayment of all of the investment costs allocated to the storage for present demand within the 50 year period.

(3) No principal or interest payment with respect to this storage for future water supply is required to be made during the first 10 years following the plant in service date, January 8, 1984 for this Project, unless all or a portion of such storage is used during this period. Any such storage shall then be known as present use storage. The amount to be paid for any portion of such storage which is used shall be determined by multiplying the percentage of the total storage for future water supply which is placed in use by the total amount of the Project investment costs allocated to future water supply under this contract. Interest at the rate of 3.22 percent will be charged on the amount of Project investment costs allocated to the storage for future water supply which is not being used from the tenth (10th) year following the plant in service date, January 8, 1984,

until the time when such storage is first used. The STATE will annually pay the interest as it becomes due until the storage is first used. When any portion of the storage for future water supply is used, payment of both principal and interest for the portion used must be started, and the amount of the Project investment costs allocated thereto, with interest on the unpaid balance as provided above, shall be paid within the 50 year period described in Article 5(a)(2). The payment for each portion shall be in equal annual installments beginning within 30 days of first use of such portion or, if payments for present use water storage space have already been initiated, commencing with the next anniversary date. The first such payment shall include interest on the investment cost of such portion from the date of first use of such portion to the initiation of payments on the anniversary date as stipulated in Article 5(a)(2). The last annual installment for any portion of the storage for future water supply shall be adjusted upward or downward when due to assure repayment of all of the investment costs allocated to such portion within the repayment period.

(4) The annual payments as provided therein shall be made subject to Article 6. Payment schedules for the storage provided for future water supply demands will be furnished by the Contracting Officer when use of such storage is started, and if based on estimated costs will be subject to Article 6. Additionally, prior to the end of the ten year period following the plant in service date of January 8, 1984, the Contracting Officer will provide a payment schedule for the payment of interest on the unused portion of future water supply.

(b) Major Replacement Cost.

(1) The STATE will be required to pay 100 percent of the cost for any construction or major replacement of specific water supply facilities owned or used entirely by it, or a pro rata share for any such facility it uses with any other persons.

(2) Future Use Storage. As the storage for future water supply demands is used, the share of the joint-use major replacement items, which the STATE will be required to pay, in addition to 100 percent of the costs for any major replacement of specific water supply facilities, will be increased commensurate with the STATE'S percentage of future water supply storage being used, up to a total, for both present and future storage space, of 3.91 percent of such costs. Any such use shall be known as present use storage. Upon expiration of the ten year interest free period, the STATE's share of such costs shall immediately become 3.91 percent of such costs. The 3.91 percent may be increased in accordance with Article Seven.

(3) Payment. Payment of major replacement costs, including interest during construction, shall be made either incrementally during construction or in lump sum upon completion of construction. If paid incrementally during construction, the first annual payment shall include interest on the investment cost of the replacement items accruing until the payment date.

Annual payments thereafter will be due and payable on the anniversary of this repayment date. All annual payments shall include accrued interest on the unpaid balance at the interest rate as determined by the Secretary of the Treasury on the basis as set forth in the Water Supply Act of 1958, as amended, for use in the Government fiscal year in which the major capital replacement is initiated. The last annual payment shall be adjusted upward or downward to assure repayment of all the incurred costs within the repayment period. Said last annual payment shall be made on September 30 of the Fiscal Year following the Fiscal Year in which the construction was completed on the major replacement item, with accrued interest as stated above.

(c) Annual Operation and Maintenance (O&M) Expense.

(1) Present Use Storage. The STATE will be required to pay 100 percent of the annual O&M expense of specific water supply facilities installed or used entirely by it, or a pro rata share for any such facility it uses with any other persons. In addition, the STATE will be required to pay a percentage of the annual experienced joint use O&M expense of the Project, said percentage to be based upon the following formula:

5.98 X Annual O&M Cost X $\frac{\text{Acre feet being used for present use}}{\text{20,000 (total acre feet}}$

(2) Future Use Storage. As the storage for future water supply demands is used by the STATE during the first 10 years following the plant in service date, January 8, 1984 for this Project, the share of the annual joint use O&M expense which the STATE will be required to pay, will be initiated in amounts commensurate with the percentage of future water supply storage being used by the STATE up to a total of 3.92 percent of such expense. Any such use shall be known as present use storage. At the end of the said 10 year period, January 8, 1994, the STATE will be required to pay the full 3.92 percent of such annual joint use O&M expense, regardless of the percentage of the total water supply storage space which at that time is being used for present use storage or future use storage. However, beginning at the end of the said 10 year period on January 8, 1994, if the future use storage space is used by the GOVERNMENT for other beneficial purposes during the interim time until use of said future use storage space is initiated by the STATE and the GOVERNMENT receives payments for such interim use, it shall so inform the STATE and shall credit the STATE with a commensurate share of such payments. Any such use by the GOVERNMENT which involves storage space on which the STATE is paying any interest, investment costs, or any other charges shall only be with the concurrence of the STATE.

(3) Payment. Payments for O&M expense are due and payable in advance on the date for payment of Project investment costs as set forth in Article 5(a)(2) and shall be based on O&M expense for the Project in the Government fiscal year most recently ended. The amount of each annual payment will be the STATE's share of the actual experienced O&M expense, specific plus joint use, for the preceding fiscal year or an estimate thereof when actual expense information is not available. The first payment in such a case, shall be due and payable within 30 days from the date of first use of storage space. Should additional future increments during the ten year, interest free period commence on other than the anniversary date described in Article 5(a)(2), O&M expense for that portion of a year should be prorated by months in use prior to said anniversary date on the basis of actual experienced joint use O&M expense for the preceding Government fiscal year. Subsequent annual payments shall be made on the date for payment of project investment costs as set forth in Article 5(a)(2).

(d) Major Rehabilitation Costs. For costs associated with major rehabilitation programs, the percentages of specific and joint use costs which the STATE will be required to pay will be in accordance with Article 5(c) for present and future use storage. Payments for the costs associated with this program shall be in accordance with Article 5(b)(3). GOVERNMENT shall prepare an analyses of these costs for the STATE, including any part of the costs of major rehabilitation program which is charged to other persons. These analyses shall be prepared for each 10 year period after January 8, 1984, and the GOVERNMENT shall provide a copy to the STATE within 30 days of the end of each period. Such reports shall contain all cost incurred during the preceding 10 year period and all costs anticipated by the GOVERNMENT at the end of the period for the next 10 years.

(e) The STATE shall have the right at any time it so elects to prepay the indebtedness under this Article, subject to redetermination of costs as provided for in Article 6, in whole or in part, with accrued interest thereon to the date of such prepayment.

(f) Delinquent Payments. Payment must be received by no later than forty-five (45) days after receipt of the billing by the Government or the due date specified in the billing determined in accordance with the contract, whichever is later. The full amount of the obligation under this Contract will, at the option of the Government, become due and payable in the event that any payment is not received within one year after it becomes due. Interest will be assessed on payments received after the due date as determined in the first sentence in this sub-paragraph. If the STATE shall fail to make any of the aforesaid payments when due, then the interest due under the provisions of Articles 5(a), 5(b), 5(c) and 5(d) shall be that determined by the Department of Treasury Fiscal Requirement's Manual (1TERM 6-8000, "cash management"). The amount charged on payments overdue for a period of less than one year shall be figured on a monthly basis. For example, if the payment is made within the first month after being overdue, one month's interest shall be charged. Thereafter, a month's interest will be charged for any portion of each succeeding month that the payment is delinquent. This provision shall not be construed as giving the STATE a choice of either making payments when due or paying interest, nor shall it be construed as waiving any of the rights of the government, at law or in equity, which might result from any default by the STATE. All percentages, dollar amounts and payments under Article 5 are subject to modification pursuant to Article 7.

ARTICLE 6 - Adjustment to Project Investment Cost. The investment cost shown in this contract and the exhibits is based on the GOVERNMENTS' best estimates. Interim determinations of cost will be made at intervals considered necessary by the Contracting Officer. All interim cost estimates will take into account the actual costs to the extent they are then known. Such further interim determinations will be performed at such periods so as to keep the STATE reasonably informed as to the required payment. On each occasion of a cost adjustment, the annual payments thereafter due shall be adjusted upward or downward so as to provide for repayment of the balance due in equal installments during the remaining life of the repayment period. The last such investment cost adjustment will be made when the last of the construction general funds have been expended. Such final determination will include the GOVERNMENT'S approved estimate of any pending real estate items and any known claims not previously accrued. Any further investment cost accruing to the STATE water storage right shall be repaid under major replacement costs if capitalized or under operation and maintenance expense if not capitalized. The STATE shall have the right to cancel this contract within 30 days of any adjustment or aggregate of adjustments made pursuant to this paragraph that increases such investment costs to the STATE by more than 10 percent above the figures contained herein.

ARTICLE 7 - Additional Responsibilities of STATE. In the event that the COMMISSION shall fail to meet any of its contractual obligations or responsibilities with regard to the said 6,875 acre feet of water, including responsibilities for payment therefore, or should the COMMISSION elect to release any or all of the 6,875 acre feet of water alloted to future water supply storage space, then said water supply storage space, whether present use or future use water supply storage space, shall be included in this contract between STATE and GOVERNMENT, and STATE shall assume the obligations and responsibilities therefor. In such an event, the costs and percentages in this contract shall be adjusted to reflect the amount of water supply storage space, whether present use or future use, that will be included in this contract. However, the STATE shall assume no responsibility under this Article for any sums of money already due the GOVERNMENT from the COMMISSION at the time said water supply storage space is transferred to the STATE. The COMMISSION shall continue to be liable for such sums of money.

ARTICLE 8 - Duration of Contract. This contract shall become effective when approved by the Secretary of the Army or his duly authorized representative and shall continue in full force and effect for the life of the Project, unless terminated sooner in accordance with provisions contained herein.

ARTICLE 9 - Permanent Rights to Storage. Upon completion of payments by the STATE as provided in Article 5(a) herein, the STATE shall have a permanent right, under the provisions of the Act of 16 October 1963 (Public Law 88-140, 43 U.S.C. 390e), to the use of the water supply storage space in the Project as provided in Article 1, subject to the following:

(a) The STATE shall continue payment of annual operation and maintenance costs allocated to its share of water supply.

(b) The STATE shall bear the costs allocated to its share of water supply hereunder for of any necessary reconstruction, rehabilitation, or replacement of Project features which may be required to continue satisfactory operation of the Project. Such costs will be established by the Contracting Officer and repayment arrangements shall be in writing in accordance with the terms and conditions set forth in Article 5(b)(3) for Major Replacement Costs, and be made a part of this contract.

(c) Upon completion of payments by the STATE as provided in Article 5(a), the Contracting Officer shall redetermine the storage space for municipal and industrial water supply in accordance with the provisions of Article 1(e). Such redetermination of reservoir storage capacity may be further adjusted from time to time as the result of sedimentation resurveys to reflect actual rates of sedimentation and the exhibit revised to show the revised storage space allocated to municipal and industrial water supply.

(d) The permanent rights of the STATE under this contract shall be continued so long as the Government continues to operate the Project. In the event the Government no longer operates the Project, such rights may be continued subject to the provisions of a separate contract, or additional supplemental agreement providing for:

(1) Continued operation by the STATE of such part of the facility as is necessary for utilization of the water supply storage space allocated to it;

(2) Terms which will protect the public interest; and

(3) Effective absolvement of the Government by the STATE from all liability in connection with such continued operation.

ARTICLE 10 - Release of Claims. The STATE, shall hold and save the GOVERNMENT, including its officers, agents and employees harmless from liability of any nature or kind for or on account of any claim for damages which may be filed or asserted as a result of the withdrawal or release of water from the Project, made or ordered by the STATE or as a result of the construction, operation, or maintenance of the water supply facilities and appurtenances thereto owned and operated by the STATE except for damages due to the fault or negligence of the GOVERNMENT or its contractors. However, the STATE and the GOVERNMENT agree that nothing in this contract shall obligate future STATE legislative appropriations for any performance or payment when such an obligation is inconsistent with STATE constitutional or statutory limitations.

ARTICLE 11 - Assignment. The STATE shall not transfer or assign this contract or any rights acquired thereunder, nor suballot said water supply storage space or any part thereof, nor grant any interest, privilege or license whatsoever in connection with this contract, without the approval of the Secretary of the Army, or his duly authorized representative provided that, unless contrary to the public interest, this restriction shall not be construed to apply to any water that may be obtained from the water supply storage space by the STATE and furnished to any third party or parties, nor any method of allocation thereof.

ARTICLE 12 - Officials Not to Benefit. No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13 - Covenant Against Contingent Fees. The STATE warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee excepting bona fide employees or

bona fide established commercial or selling agencies maintained by the STATE for the purpose of securing business. For breach or violation of this warranty the GOVERNMENT shall have the right to annul this contract without liability or in its discretion to add to the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE 14 - Environmental Quality. During any construction, operation, and maintenance by any party to this agreement of any facilities, specific actions will be taken to control environmental pollution which could result from such activity and to comply with applicable Federal, State, and local laws and regulations concerning environmental pollution. Particular attention should be given to (1) reduction of air pollution by control of burning, minimization of dust, containment of chemical vapors, and control of engine exhaust gases, and of smoke from temporary heaters; (2) reduction of water pollution by control of sanitary facilities, storage of fuels and other contaminants, and control of turbidity and siltation from erosion; (3) minimization of noise levels; (4) onsite and offsite disposal of waste and spoil; and (5) prevention of landscape defacement and damage.

ARTICLE 15 - Federal and State Laws.

(a) In acting under its rights and obligations hereunder, the STATE agrees to comply with all applicable Federal and State laws and regulations, including but not limited to the provisions of the Davis-Bacon Act (40 U.S.C. 276a et seq.); the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333); Title 29, Code of Federal Regulations, Part 3; and Sections 210 and 305 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646).

(b) The STATE furnishes, as part of this contract, an assurance (Exhibit B) that it will comply with Title VI of the Civil Rights Act of 1964 (78 Stat. 241, 42 U.S.C. 2000d, et seq.) and Department of Defense Directive 5500.11 issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations.

(c) Any discharges of water or pollutants into a navigable stream or tributary thereof resulting from the User's facilities and operations undertaken under this contract shall be performed only in accordance with applicable Federal, State, and local laws and regulations.

ARTICLE 16 - Definitions.

(a) Project investment costs - The initial cost of the Project, including: land acquisition; construction; interest during construction on the value of land, labor, and materials used for planning and construction of the Project.

(b) Interest during construction - An amount of interest which accrues on expenditures for the establishment of Project services during the period between the actual outlay and the time the Project is first made available for water storage.

(c) Specific costs - The costs of Project features normally serving only one particular project purpose.

(d) Joint-use costs - The costs of features used for any two or more Project purposes.

(e) Contracting Officer - The person designated by the GOVERNMENT to perform its duties under this contract. The GOVERNMENT shall insure that such person or his successor is at all times designated in writing to the STATE.

(f) Plant-in-service date - This date is the date that the Project is physically available to initiate deliberate impoundment for water supply purposes.

(g) Annual operation and maintenance (O&M) expense - Annual expenses funded under the O&M, General account. These expenses include the daily project O&M costs as well as those O&M costs which are capitalized.

(h) Major replacement cost - Costs funded under the Construction, General account but not associated with initial Project investment costs.

(i) Fiscal Year - Refers to the GOVERNMENT'S fiscal year. This year begins on 1 October and ends on 30 September.

(j) Life of the Project - This is the physical life of the Project.

(k) Major Rehabilitation - This program is to facilitate accomplishment of significant, costly, infrequent rehabilitation work at the Project without unduly distorting the Operation and Maintenance General budget.

(l) The term Municipal and Industrial water supply includes but is not limited to public water supply.

(m) Initial Use - The first withdrawal of water by the STATE for delivery to water users, not to include water withdrawn for purposes of testing facilities installed by the STATE for the purposes of withdrawing or delivering water pursuant to this contract.

(n) Project outlet works - The gates and spillway of the Clarence Cannon Dam.

(o) Present use storage - That use which occurs when the STATE begins taking water from Future use storage space pursuant to this contract.

(p) Average annual usage - Average daily usage figured over an annual period, i.e., SUMMATION OF DAILY USAGE/365.

ARTICLE 17 - Limitations of STATE Liability.

(a) The parties to this contract understand the restraints and prohibitions on the assumption of future obligations and liabilities placed on the STATE by its constitution and statutes, and therefore any other provisions of this contract not withstanding, all costs, expenses, guarantees, claims and payments of any other kind arising under or pursuant to this contract shall be conditioned upon the appropriation of funds therefor by the Missouri Legislature, and the STATE shall not be liable for the payment of any such sums unless funds for the payment therefor have been appropriated by the Missouri Legislature. In the event, however, that the Missouri Legislature shall elect not to appropriate funds in any STATE fiscal year for payments under this contract, then the rights of the STATE under this contract shall terminate and the STATE does agree to cease all water withdrawals until the Missouri Legislature does again appropriate funds for said contract and all overdue payments, including interest thereon, shall have been paid.

(b) In such event, wherein the Missouri Legislature shall have elected not to appropriate funds for payments under this contract and the STATE shall have ceased making water withdrawals, then the GOVERNMENT shall have the right to execute agreements necessary in order to make said water supply storage space or portions thereof available to other interested entities. Said entities would be required to assume all of the obligations of the STATE as described in this contract with regard to the water supply storage space or portions thereof.

ARTICLE 18 - Recording of Contract. The parties agree that they shall execute a memorandum of agreement in a form suitable for recording under the laws of the State of Missouri.

ARTICLE 19 - Approval of Contract. This contract shall be subject to the written approval of the Secretary of the Army or his duly authorized representative and shall not be binding until so approved.

CONTRACT BETWEEN
THE
UNITED STATES OF AMERICA
AND THE
STATE OF MISSOURI
FOR
WATER STORAGE SPACE IN THE
CLARENCE CANNON DAM AND MARK TWAIN LAKE
SALT RIVER, MISSOURI

This Contract is hereby entered into on this tenth day of March, 1988, by and between the UNITED STATES OF AMERICA and the STATE OF MISSOURI.

IN WITNESS WHEREOF, the parties do hereby execute this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

DANIEL M. WILSON
Colonel, CE
Contracting Officer

ROBERT W. PAGE
Assistant Secretary of the Army
(Civil Works)

THE STATE OF MISSOURI

FREDERICK A. BRUNNER
Director
Department of Natural Resources

JOHN D. ASHCROFT
Governor of Missouri

CERTIFICATION

I Robert M. Lindholm, Assistant Attorney General for the STATE OF MISSOURI, hereby certify that the foregoing agreement executed by Frederick A. Brunner of the STATE OF MISSOURI is within the scope of his authority to act upon behalf of the STATE OF MISSOURI, and that in my capacity as Assistant Attorney General for the STATE OF MISSOURI, I find, with the exceptions and limitations stated in the agreement, that the STATE OF MISSOURI is legally and financially capable of entering into the contractual obligations contained in the foregoing agreement and that, upon acceptance, it will be legally enforceable.

Given under my hand, this 10th day of March 1988.

Robert M. Lindholm
Assistant Attorney General for the
STATE OF MISSOURI

EXHIBIT A

I - LAKE STORAGE

Feature	Elevation (ft., m.s.l.)	Usable Storage* (ac. ft.)	Percent of Conservation Storage	Percent of Water Supply Storage
Flood Control	606.0 - 638.0	864,000		
Conservation	567.2 - 606.0	399,500	100.00	
Water Supply	567.2 - 606.0	20,000	5.00	100.00
STATE				
Present		0		0
Future		13,125		65.63
Others		6,875		34.37
Other Purposes	567.2 - 606.0	379,500	0	

* Storage remaining after 100 years of sedimentation from the date the project is operational.

II - ALLOCATION OF ESTIMATED CONSTRUCTION COST

Feature	Cost ($)	Percent of Project Joint-Use Construction Cost
Flood control	149,700.000	
Specific	2,300,000	
Joint-use	147,400,000	61.48
Recreation	73,100,000	
Specific	21,730,000	
Future (Specific)	9,970,000 (1)	
Joint-use	41,400,000	17.26
Water Supply	14,300,000	
Specific		
Joint-use	14,300,000	5.96
Hydropower	76,000,000	11.26
Specific	49,000,000	
Joint-Use	27,000,000	
Fish & Wildlife	10,900,000	
Specific	1,500,000	
Joint-Use	9,400,000	3.92
Navigation	300,000	
Specific		
Joint-Use	300,000	0.12
Road Betterments (specific)	5,700,000	
Total Project Joint Use Construction Costs	239,800,000	100.00
Total Project Construction Costs	330,000,000	100.00

(1) Costs of recreation currently deferred subject to 50-50 cost sharing with a local sponsor.

III - INVESTMENT COSTS TO BE REPAID BY STATE FOR WATER SUPPLY STORAGE

Future Use:

Cost of 13,125 acre feet of water supply storage 65.63% x $14,300,000	= $ 9,385,090
Interest during Construction (1)	= $ 2,125,334
Total Investment Future Use	= $11,510,424
Total Investment Cost Under This Contract	= $11,510,424

(1) Based on actual construction expenditures by year at project interest rate of 3.22

Formula to calculate interest:

Future Use:

$$\frac{\$\ 14,300,000}{\$298,577,373} \times \frac{13,125\ \text{Ac. Ft.}}{20,000\ \text{Ac. Ft.}} \times \$67,620,570 = \$2,125,334$$

EXHIBIT B

ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF DEFENSE DIRECTIVE UNDER TITLE IV OF THE CIVIL RIGHTS ACT OF 1964

The STATE OF MISSOURI, hereinafter called Applicant-Recipient, hereby agrees that it will comply with title VI of the Civil Right Act of 1964 (Public Law 88-353) and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 Code of Federal Regulations Part 300, issued as Department of Defense Directive 5500.11, 28 December 1964) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Directive, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant-Recipient receives Federal financial assistance from Department of the Army and HEREBY GIVES ASSURANCE THAT it will immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant-Recipient by the Department of the Army, assurance shall obligate the Applicant-Recipient, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant-Recipient for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant-Recipient for the period during which the Federal financial assistance is extended to it by Department of the Army.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant-Recipient by the Department, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Applicant-Recipient recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant-Recipient, it's successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant-Recipient.

Sections IV and VII of Department of Defense Directive 5500.11 setting forth prohibited discriminatory actions and compliance information are attached.

STATE OF MISSOURI
(Applicant-Recipient)

BY _____

Dated _____

IV. POLICY

A. GENERAL. No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program to which this Directive applies.

B. SPECIFIC DISCRIMINATORY ACTION PROHIBITED.

1. A recipient under any program to which this Directive applies may not, directly or through contractual or other arrangements, on the ground of race, color, or national origin:

a. Deny an individual any service, financial aid, or other benefit provided under the program.

b. Provide any service, financial aid, or other benefit to an individual which is different, or is provided in a different manner, from that provided to others under the program;

c. Subject an individual to segregation or separate treatment in any matter related to his receipt of any service, financial aid, or other benefit under the program;

d. Restrict an individual in any way in the enjoyment of any advantage or privilege enjoyed by other receiving any service, financial aid, or other benefit under the program;

e. Treat an individual differently from others in determining whether he satisfies any admission, enrollment, quota, eligibility, membership or other requirement or condition which individuals must meet in order to be provided any service, financial aid, or other benefit provided under the program.

f. Deny an individual an opportunity to participate in the program through the provision of services or otherwise or afford him an opportunity to do so which is different from that afforded others under the program.

2. A recipient, in determining the types of services, financial aid, or other benefits, or facilities which will be provided under any such program, or the class of individuals to whom, or the situations in which, such services, financial aid, other benefits, or facilities will be provided under any such program, or the class of individuals to be afforded an opportunity to participate in any such program, may not, directly or through contractual or other arrangements, utilize criteria or methods of administration which have the effect of subjecting individuals to discrimination because of their race, color, or national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program as respect individuals of a particular race, color, or national origin.

SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING	PAGE 1 OF PAGES 27

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
DACW43-88-C-0037		[ ] SEALED BID (IFB) [ ] NEGOTIATED (RFP)		

7. ISSUED BY	8. ADDRESS OFFER TO (If other than Item 7)
CODE DACW43 CONTRACTING DIVISION USARMY ENGR DIST ST LOUIS 1222 SPRUCE ST, RM 4.207 ST LOUIS MO 63103-2833 TEL: FAX	CODE See Item 7 TEL: FAX

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in _____ until _____ (Hour) local time _____ (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE (Include area code) (NO COLLECT CALLS)	C. E-MAIL ADDRESS

11. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I - THE SCHEDULE				**PART II - CONTRACT CLAUSES**	
X	A	SOLICITATION/ CONTRACT FORM	1		I	CONTRACT CLAUSES	
X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS	2			**PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**	
X	C	DESCRIPTION/ SPECS/ WORK STATEMENT	3		J	LIST OF ATTACHMENTS	
	D	PACKAGING AND MARKING				**PART IV - REPRESENTATIONS AND INSTRUCTIONS**	
	E	INSPECTION AND ACCEPTANCE			K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
	F	DELIVERIES OR PERFORMANCE					
	G	CONTRACT ADMINISTRATION DATA			L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
	H	SPECIAL CONTRACT REQUIREMENTS			M	EVALUATION FACTORS FOR AWARD	

OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)

14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):

AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
CODE _____ FACILITY _____ CLARENCE CANNON WHOLESALE WATER COMMISSI ELIZABETH GROVE AND THE STATE OF MISSOURI ROUTE 1 BOX 42 STOUTSVILLE MO 65283	ELIZABETH GROVE / GENERAL MANAGER

15B. TELEPHONE NO. (Include area code)	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE
	[ ]		

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
	$0.00	

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM
[ ] 10 U.S.C. 2304(c)( ) [ ] 41 U.S.C. 253(c)( )		

24. ADMINISTERED BY (If other than Item 7)	25. PAYMENT WILL BE MADE BY
CODE See Item 7	CODE

26. NAME OF CONTRACTING OFFICER (Type or print)	27. UNITED STATES OF AMERICA	28. AWARD DATE
GAIL T. EVANS	(Signature of Contracting Officer)	28-Sep-2001

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

SECTION B Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1.00		$0.00	$0.00
	Water Storage Space in the Clarence Cannon Dam FFP - and Mark Twain Lake Project, Salt River, Missouri				
				NET AMT	$0.00

SECTION C Descriptions and Specifications

DACW43-88-C-0037
CONTRACT NO.
DATE: 88MAR10

CONTRACT BETWEEN THE UNITED STATES OF AMERICA

AND

THE CLARENCE CANNON WHOLESALE WATER COMMISSION
AND
THE STATE OF MISSOURI

FOR

WATER STORAGE SPACE IN THE CLARENCE CANNON DAM AND
MARK TWAIN LAKE PROJECT, SALT RIVER, MISSOURI

THIS CONTRACT, entered into this 10th day of March, 1988, by and between THE UNITED STATES OF AMERICA (hereinafter called the "GOVERNMENT") represented by the Contracting Officer executing this contract, the CLARENCE CANNON WHOLESALE WATER COMMISSION (hereinafter called the "COMMISSION"), and the STATE OF MISSOURI (hereinafter called the "STATE");

WITNESSETH THAT:

WHEREAS, the Flood Control Act of 1962 (Public Law 874, 87th Congress), authorized the construction, operation, and maintenance of the Clarence Cannon Dam and Mark Twain Lake Project, Salt River, Missouri, and

WHEREAS, the STATE did on April 8, 1965, execute ASSURANCES ON WATER SUPPLY, JOANNA RESERVOIR, SALT RIVER, MISSOURI, (Now entitled Clarence Cannon Dam and Mark Twain Lake Project), in which the STATE did request that the GOVERNMENT include approximately 20,000 acre feet of water supply storage in the Project and did provide certain assurances regarding future demands for water supply from the Clarence Cannon Dam and Mark Twain Lake Project; and

WHEREAS, the STATE, by this Contract and with the consent of the GOVERNMENT, does now assign its rights to a portion of the water supply storage that has been included in the project, consisting of 6,875 acre feet of water, to the COMMISSION, along with the responsibility for payment for the cost thereof in accordance with the Water Supply Act of 1958, as amended, and

WHEREAS, the COMMISSION does desire to contract with the GOVERNMENT for the use of storage in the Project for municipal and industrial water supply, and for payment of the cost thereof in accordance with the provisions of the Water Supply Act of 1958, as amended, and

WHEREAS, the COMMISSION, by authority of the Joint Municipal Utility Commission Act, Section 393.700 et. seq. of the Missouri Revised Statutes, is empowered to contract with the GOVERNMENT and is vested with all necessary powers of accomplishment of the purposes of this contract, and

WHEREAS, the STATE by authority of the 73rd General Assembly of the State of Missouri (House Bill No. 95, approved March 3, 1965) is empowered to contract with the GOVERNMENT and, except as limited herein, is vested with all necessary powers of accomplishment of the purposes of this contract.

NOW, THEREFORE, the GOVERNMENT, the COMMISSION, and the STATE agree as follows:

ARTICLE 1 - WATER STORAGE SPACE.

(a) Project Construction. The GOVERNMENT, subject to the directions of Federal law and any limitations imposed thereby, has designed and constructed the Project so as to include therein space for the storage of water for water supply. The Project has usable storage space between elevations 567.2 feet above mean sea level and 606 feet above mean sea level, which usable storage space is estimated to contain approximately 20,000 acre feet for water supply after adjustment for sediment deposits. The 20,000 acre feet of water supply storage equates to an average availability of 16,000,000 gallons of water per day (g.p.d.) for withdrawal.

(b) Rights of COMMISSION.

(1) The COMMISSION shall have the right to utilize an undivided 34.37 percent (estimated to contain 6,875 acre feet of water, which equates to an average availability of 5,500,000 g.p.d.) out of the usable water supply storage space in the Project. This storage space is to be used to impound water for present and anticipated future demand or need for municipal and industrial water supply. At the time of the execution of this Contract, 100 percent of the aforesaid 6,875 acre feet of water which the COMMISSION has the right to utilize is for anticipated future use water storage.

(2) The COMMISSION shall have the right to withdraw water from the lake, to the extent the aforesaid storage space will provide and subject to the provisions of Article 1(c), whenever the water level is above 567.2 feet mean sea level; and shall have the right to construct all such works, plants, pipelines, and appurtenances as may be necessary and convenient for the purpose of diversion or withdrawals, subject to the approval of the Contracting Officer as to design and location. The grant of an easement for right-of-way, across, in and upon land of the GOVERNMENT at the Project shall be by a separate instrument in a form satisfactory to the Secretary of the Army or his designated representative, without additional cost to the COMMISSION, under the authority of and in accordance with the provisions of 10 U.S.C. 2669 and such other authorities as may be necessary. Subject to the conditions of such easement, the COMMISSION shall have the right to use so much of the Project land as may reasonably be required in the exercise of the rights and privileges granted under this contract.

(c) Rights Reserved. The GOVERNMENT reserves the right to maintain at all times a minimum downstream release of 50 cubic feet per second through the gates or spillway of the dam which amount will not be allocated to water supply storage space hereby assigned to the COMMISSION; to lower the water in the Project to elevation 590 feet above mean sea level during such periods of time as are deemed necessary, in its sole discretion, for hydropower generation purposes; and to control and use any future water supply storage or any water supply storage not under contract in accordance with authorized Project purposes. The GOVERNMENT further reserves the right to take such measures as may be necessary in the operation of the Project to preserve life and/or property, including the right not to make downstream releases during such periods of time as are deemed necessary, in its sole discretion, to inspect, maintain, or repair the Project.

(d) Quality of Water. The COMMISSION recognizes that this contract provides storage space for raw water only. The GOVERNMENT makes no representations with respect to the quality of water and assumes no responsibility therefor, or for the treatment of the water.

(e) Sedimentation Surveys.

(1) Sedimentation surveys will be made by the Contracting Officer during the term of this contract at intervals not to exceed fifteen (15) years unless otherwise agreed to in writing by all parties. When, in the opinion of the Contracting Officer, the findings of such survey indicate any project purpose will be affected by unanticipated sedimentation distribution, there shall be an equitable redistribution of the sediment reserve storage space among the purposes served by the Project including municipal and industrial water supply. The total available remaining storage space in the Project will then be divided among the various Project features in the same ratio as was initially utilized. Adjusted pool elevations will be rounded to the nearest one-half foot. Such findings and the storage space allocated to municipal and industrial water supply shall be defined and described as an exhibit which will be made a part of this contract and the reservoir regulation manual will be modified accordingly.

(2) The GOVERNMENT assumes no responsibility for deviations from estimated rates of sedimentation, or the distribution thereof. Such deviations may cause unequal distribution of sediment reserve storage greater than estimated, and/or encroachment on the total storage at the Project. However, in such case, any deviations in storage will be equitably redistributed as in par. (1) above.

ARTICLE 2 - Regulation of and Right to Use of Water. The regulation of the use of water withdrawn or released from the aforesaid storage space alloted to the COMMISSION shall be the sole responsibility of the COMMISSION. The COMMISSION has the full responsibility to acquire in accordance with State laws and regulations, and, if necessary, to establish or defend, any and all water rights needed for utilization of the storage provided under this contract. The GOVERNMENT shall not be responsible for diversions from the

reservoir by others but shall take every reasonable action to prevent such diversions. The GOVERNMENT will not become a party to any controversies involving the use of the storage space by the COMMISSION except as such controversies may affect the operations of the GOVERNMENT, or when it's interests are essential to establishing or defending the rights of the STATE or COMMISSION hereunder.

ARTICLE 3 - Operation and Maintenance. The GOVERNMENT shall operate and maintain the Project and the COMMISSION shall pay to the GOVERNMENT a share of the costs of such operation and maintenance as provided in Article 5. The COMMISSION shall be responsible for operation and maintenance of all installations and facilities which it may construct for the diversion or withdrawal of water, and shall bear all costs of construction, operation and maintenance of such installations and facilities.

ARTICLE 4 - Measurement of Withdrawals and Releases. The COMMISSION agrees to furnish and install, without cost to the GOVERNMENT, suitable measuring devices satisfactory to the Contracting Officer for the measurement of water which is withdrawn by the COMMISSION from the Project by any means other than through the Project outlet works. For the purpose of determining payments for water hereunder and use of storage space, measurement of water withdrawal shall be as it enters COMMISSION'S treatment plant for delivery to its customers. The COMMISSION shall furnish to the GOVERNMENT monthly statements of all such withdrawals. Prior to the construction of any facilities for withdrawal of water from the Project, the COMMISSION will obtain the Contracting Officer's approval of the design, location and installation of the facilities including the measuring devices. Such devices shall be available for inspection by GOVERNMENT representatives at all reasonable times. Releases from the water supply storage space through the Project outlet works shall be made in accordance with written schedules furnished by the COMMISSION and approved by the Contracting Officer and shall be subject to Article 1(c). The measure of all such releases shall be by means of a rating curve of the outlet works, or by such other suitable means as may be agreed upon prior to use of the water supply storage space.

ARTICLE 5 - Payments. In consideration of the right to utilize the aforesaid storage space in the Project for municipal and industrial water supply purposes, the COMMISSION shall pay the following sums to the GOVERNMENT:

(a) Project Investment Costs.

(1) The COMMISSION shall repay to the GOVERNMENT, at the times and with interest on the unpaid balance as hereinafter specified, the amounts stated below which, as shown in Exhibit "A" attached to and made a part of this contract, constitute the entire estimated amount of the construction costs, including interest during construction, allocated to the water storage rights acquired by the COMMISSION under this contract. The interest rate to be used for purposes of computing interest during construction is 3.22 percent, and the interest rate to be used for purposes of computing interest on the unpaid

balance has been determined by the Secretary of the Treasury as of the beginning of the fiscal year in which construction of the Project was initiated on the basis set forth in the Water Supply Act of 1958, asamended. For this Project, construction of which was initiated in FY 1966, this interest rate is 3.22 percent. The COMMISSION shall repay:

2.05 percent (1) of the total Project joint use construction costs, estimated at	$4,914,910
Interest during construction	$1,113,270
Total estimated amount of Project investment costs allocated to water supply	$6,028,180

(1) Repayment Percentage = 5.96 Percent of Project joint use construction costs allocable to water supply storage X

6,875 (acre feet available under this contract)
20,000 (total acre feet in Project

The percentage (2.05) has been rounded to two decimal places.

(2) The entire amount of the Project investment costs allocated to the water supply storage space under this contract, presently estimated at $6,028,180 on the basis of the costs presented in Exhibit "A", is for anticipated future use for municipal and industrial water supply. When the use of all or a portion of the said water supply storage space is initiated and that portion becomes present use water storage space, payments for said portion shall be initiated as indicated in Article 5(a)(3). The amount of the Project investment costs allocated to the storage for present demand shall be paid within 50 years from the date of the approval of this contract by the Assistant Secretary of the Army (Civil Works). The payments shall be in equal consecutive annual installments, the first of which shall be due and payable within 30 days of first use of storage. Annual installments thereafter will be due and payable on the anniversary date of the first such payment. Except for the first payment which will be applied solely to the retirement of principal, all installments shall include accrued interest on the unpaid balance at the rate provided above. The last annual installment shall be adjusted upward or downward when due to assure repayment of all of the investment costs allocated to the storage for present demand within the 50 year period.

(3) No principal or interest payment with respect to the storage for future water supply is required to be made during the first 10 years following the plant in service date, January 8, 1984 for this Project, unless all or a portion of such storage is used during this period. Any such storage so used shall be known as present use storage. At the end of this 10-year period, the COMMISSION shall have the option, to be exercised within 90 days following January 8, 1994, of electing to transfer all or part of the future use water storage space to present use; of retaining all or a portion of the future use water storage space under this contract; or of releasing all or a portion of the future use water storage space from this contract. The COMMISSION shall not have to pay any charges of any kind for any part of the future use water storage space which it elects to release. The amount to be paid for any portion of such storage which is used shall be determined by multiplying the percentage of the total storage for future water supply which is placed in use, calculated on the basis of annual average use, by the total amount of the Project investment costs allocated to the storage for future water supply under this contract. Interest at the rate of 3.22 percent will be charged on the amount of Project investment costs allocated to the storage for future water supply which is reserved for future use or being used after the tenth (10th) year following the plant in service date, January 8, 1984. The COMMISSION will pay any interest which accrues as it becomes due on an annual basis. When any portion of the storage for future water supply is used, payment of both principal and interest for the portion used must be started, and the amount of the Project investment costs allocated thereto, with interest on the unpaid balance as provided above, shall be paid within the 50 year period described in Article 5(a)(2). The payment for each portion shall be in equal annual installments beginning with 30 days of first use of such portion or, if payments for present use water storage space have already been initiated, commencing with the next anniversary date. The first such payment shall include interest on the investment cost of such portion from the date of first use of such portion to the initiation of payments on the anniversary date as stipulated in Article 5(a)(2). The last annual installment for any portion of the storage for future water supply shall be adjusted upward or downward when due to assure repayment of all the investment costs allocated to such portion within the repayment period.

(4) Payment schedules for the storage provided for future water supply demands will be furnished by the Contracting Officer when use of such storage is started, and if based on estimated costs will be subject to Article 6.

(b) Major Replacement Cost.

(1) Present Use Storage. The COMMISSION will be required to pay 100 percent of the cost for any construction or major replacement of specific water supply facilities owned by the Commission. No water is currently allotted to present use storage; therefore, the COMMISSION will be required to pay 0 percent of the cost of joint use major replacement items.

(2) Future Use Storage. As the storage for future water supply demands is used, which shall then be known as present use storage, the share of the joint-use major replacement items, which the COMMISSION will be required to pay, in addition to 100 percent of the costs for any major replacement of specific water supply facilities owned by the COMMISSION, will be calculated commensurate with the COMMISSION'S percentage of future water supply storage being used, up to a total, for both present and future storage space, of 2.05 percent of such costs (1). Upon expiration of the ten year interest free period, the COMMISSION's share of such costs shall immediately become 2.05 percent of such costs. This percentage is, however, subject to the rights of the COMMISSION to exercise certain options with regard to future use water supply storage as set forth in Article 5(a)(3).

(1) Maximum Repayment Percentage = 5.96 Percent of Project joint use construction costs allocable to water supply storage X

$$\frac{6{,}875 \text{ (acre feet available for present use)}}{20{,}000 \text{ (total acre feet in Project)}}$$

(3) Payment. Payment of costs, including interest during construction, shall be made either incrementally during construction or in lump sum upon completion of construction. If paid incrementally during construction, the first annual payment shall include interest on the investment cost of the replacement items accruing until the payment date. Annual payments thereafter will be due and payable on the anniversary of this repayment date. All annual payments shall include accrued interest on the unpaid balance at the interest rate as determined by the Secretary of the Treasury on the basis as set forth in the Water Supply Act of 1958, as amended, for use in the Government fiscal year in which the major capital replacement is initiated. The last annual payment shall be adjusted upward or downward to assure repayment of all the incurred costs within the repayment period. Said last annual payment shall be made on the first anniversary date following the completion of construction of the major replacement item.

(c) Annual Operation and Maintenance (O&M) Expense:

(1) Present Use Storage. The COMMISSION will be required to pay 100 percent of the annual O&M expense of specific water supply facilities installed or used by it. In addition, the COMMISSION will be required to pay a percentage of the annual experienced joint use O&M of the Project, said percentage to be based upon the following formula.

$$5.98 \quad X \quad \text{Annual O\&M Cost} \quad X \quad \frac{\text{Acre feet being used for present use}}{20{,}000 \text{ (total acre feet)}}$$

(2) Future Use Storage. As the storage for future water supply demands is used during the first 10 years following the plant in service date, January 8, 1984 for this Project, the share of the annual joint use O&M expense which the COMMISSION will be required to pay, in addition to 100 percent of the annual O&M expense of specific water supply facilities, will be calculated commensurate with the percentage of future water supply storage being used, up to a total of 2.06 percent of such expense. Any such use shall be known as present use storage. At the end of the said 10 year period, January 8, 1994, the COMMISSION will be required to pay the full 2.06 percent of such annual joint use O&M expense, regardless of the percentage of the total water supply storage space which at that time is being used for present use storage or future use storage. This percentage is, however, subject to the right of the COMMISSION to release all or portions of the future use water supply storage space as provided in Article 5(a)(3). However, beginning at the end of the said 10 year period on January 8, 1994, if the future use storage space is used by the GOVERNMENT for other beneficial purposes during the interim time until use of said future use storage space is initiated by the COMMISSION and the GOVERNMENT receives payments for such interim use, it shall so inform the COMMISSION and shall credit the COMMISSION with a commensurate share of such payments. Any such use by the GOVERNMENT which involves storage space on which the COMMISSION is paying interest, investment costs, or any other charges shall only be with the concurrence of the COMMISSION.

(3) Payment. Payments for O&M expense are due and payable in advance on the date for payment of Project investment costs as set forth in Article 5(a)(2) and shall be based on O&M expense for the Project in the Government fiscal year most recently ended. The amount of each annual payment will be the actual experienced O&M expense, specific plus allocated joint use, for the preceding fiscal year or an estimate thereof when actual expense information is not available. The first payment, in such a case, shall be due and payable within 30 days from the date of first use of storage space. Should additional future increments during the ten year, interest free period commence on other than the anniversary date described in Article 5(a)(2), O&M expense for that portion of a year should be prorated by months in use prior to said anniversary date on the basis of actual experienced joint use O&M expense for the preceding Government fiscal year. Subsequent annual payments shall be made on the date for payment of project investment costs as set forth in Article 5(a)(2).

(d) Major Rehabilitation Costs. For costs associated with major rehabilitation programs, the percentages of specific and joint use costs which the COMMISSION will be required to pay will be in accordance with Article 5(c) for present and future use storage. Payments for the costs associated with this program shall be in accordance with Article 5(b)(3). The GOVERNMENT, upon request by the COMMISSION, shall prepare an analysis of these costs for the COMMISSION and the STATE every 10 years after COMMISSION'S first use, and shall provide a copy to each of them within 30 days of the end of each 10-year period. Such reports shall contain all costs incurred during the preceding 10-year period and all costs anticipated by the GOVERNMENT for the next 10 years.

(e) The COMMISSION shall have the right at any time it so elects to prepay the indebtedness under this Article, subject to redetermination of costs as provided for in Article 6, in whole or in part, with accrued interest thereon to the date of such prepayment.

(f) Delinquent Payments. Payment must be received by no later than forty-five (45) days after receipt of the billing by the Government or the due date specified in the billing determined in accordance with the contract, whichever is later. The full amount of the obligation under this Contract will, at the option of the Government become due and payable in the event that any payment is not received within one year after it becomes due. Interest will be assessed on payments received after the due date as determined in the first sentence in this sub-paragraph. If the COMMISSION shall fail to make any of the aforesaid payments when due, then the interest due under the provisions of Articles 5(a), 5(b), 5(c) and 5(d) shall be that determined by the Department of Treasury Fiscal Requirement's Manual (1TERM 6-8000, "cash management"). The amount charged in payments overdue for a period of less than one year shall be figured on a monthly basis. For example, if the payment is made within the first month after being overdue, one month's interest shall be charged. Thereafter, a month's interest will be charged for any portion of each succeeding month that the payment is delinquent. This provision shall not be construed as giving the COMMISSION a choice of either making payments when due or paying interest, nor shall it be construed as waiving any of the rights of the government, at law or in equity, which might result from any default by the COMMISSION. All percentages, dollar amounts and payments under Article 5 are subject to modification pursuant to Article 7.

ARTICLE 6 - Adjustment to Project Investment Cost. The investment cost shown in this contract and the exhibits is based on the GOVERNMENTS' best estimates. Interim determinations of cost will be made at intervals considered necessary by the Contracting Officer. All interim cost estimates will take into account the actual costs to the extent they are then known. Such further interim determinations will be performed at such periods so as to keep the COMMISSION reasonably informed as to the required payment. On each occasion of a cost adjustment, the annual payments thereafter due shall be adjusted upward or downward so as to provide for repayment of the balance due in equal installments during the remaining life of the repayment period. The last such investment cost adjustment will be made when the last of the construction general funds have been expended. Such final determination will include the GOVERNMENT'S approved estimate of any pending real estate items and any known claims not previously accrued. Any further investment cost accruing to the COMMISSION water storage right shall be repaid under major replacement costs if capitalized or under operation and maintenance expense if not capitalized. The COMMISSION or the STATE or both of them shall have the right to cancel this contract within 30 days of any adjustment made pursuant to this paragraph that increases such investment costs to either of them by more than 10 per cent, either by individual, or the sum of multiple adjustments above the figures contained herein.

ARTICLE 7 - Responsibility of STATE. In the event that the COMMISSION shall fail to meet any of its obligations or responsibilities with regard to the water supply storage space described in this contract, then said water supply storage space, along with the obligations and responsibilities therefor, shall be included in a separate water supply storage space contract between the GOVERNMENT and the STATE. In the event that the COMMISSION shall elect to release any of the future water supply storage space as provided for in Article 5(a)(3) of this contract, then said future water supply storage space, along with all obligations and responsibilities therefore, shall be included in the separate water supply storage space contract between the GOVERNMENT and the STATE at the Project. For the purpose of this Article only, the Contracting Officer shall, subject to judicial review, determine when the COMMISSION shall have failed to make it's payments or perform it's other responsibilities or obligations under this Contract and shall at that time notify the STATE of the STATE's assumption of the said responsibilities, obligations, and attendant rights. However, the STATE shall assume no responsibility under this Article for any sums of money already due the GOVERNMENT from the COMMISSION at the time said water supply storage space is transferred to the STATE. The COMMISSION shall continue to be liable for such sums of money.

ARTICLE 8 - Duration of Contract. This contract shall become effective when approved by the Secretary of the Army or his duly authorized representative and shall continue in full force and effect for the life of the Project, unless terminated earlier under the provisions herein.

ARTICLE 9 - Permanent Rights to Storage. Upon completion of payments by the COMMISSION as provided in Article 5(a) herein, the COMMISSION shall have a permanent right, under the provisions of the Act of 16 October 1963 (Public Law 88-140, 43 U.S.C. 390e), to the use of the water supply storage space in the Project as provided in Article 1, subject to the following:

(a) The COMMISSION shall continue payment of annual operation and maintenance costs allocated to water supply, except for any future use water supply storage space released by it under Article 5(a)(3).

(b) The COMMISSION shall bear the costs allocated to its share of water supply of any necessary reconstruction, rehabilitation, or replacement of Project features which may be required to continue satisfactory operation of the Project. Such costs will be established by the Contracting Officer and repayment arrangements shall be in writing in accordance with the terms and conditions set forth in Article 5(b)(3) for Major Replacement Costs, and be made a part of this contract.

(c) Upon completion of payments by the COMMISSION as provided in Article 5(a), the Contracting Officer shall redetermine the storage space for municipal and industrial water supply in accordance with the provisions of Article 1(e). Such redetermination of reservoir storage capacity may be further adjusted from time to time as the result of sedimentation resurveys to reflect actual rates of sedimentation and the exhibit revised to show the revised storage space allocated to municipal and industrial water supply. Any such redetermination shall be done by the procedures for equitable redistribution set forth in Article 1(e) above.

(d) The permanent rights of the COMMISSION and the STATE under this contract shall be continued so long as the Government continues to operate the Project. In the event the Government no longer operates the Project, such rights may be continued subject to the provisions of a separate contract, or additional supplemental agreement providing for:

(1) Continued operation by the COMMISSION and the STATE of such part of the facility as is necessary for utilization of the water supply storage space allocated to it;

(2) Terms which will protect the public interest; and

(3) Effective absolvement of the Government by the COMMISSION and the STATE from all liability in connection with such continued operation.

ARTICLE 10 - Release of Claims. The COMMISSION shall hold and save the GOVERNMENT, including its officers, agents and employees harmless from liability of any nature or kind for or on account of any claim for damages which may be filed or asserted as a result of withdrawal or release of water from the Project, made or ordered by the COMMISSION or as a result of the construction, operation, or maintenance of the water supply facilities and appurtenances thereto owned and operated by the COMMISSION except for damages due to the fault or negligence of the GOVERNMENT or its contractors.

ARTICLE 11 - Assignment. The COMMISSION and the STATE shall not transfer or assign this contract or any rights acquired thereunder, nor suballot said water supply storage space or any part thereof, nor grant any interest, privilege or license whatsoever in connection with this contract, without the approval of the Secretary of the Army, or his duly authorized representative provided that, unless contrary to the public interest, this restriction shall not be construed to apply to any water that may be obtained from the water supply storage space by the COMMISSION or the STATE and furnished to any third party or parties, nor any method of allocation thereof.

ARTICLE 12 - Officials Not to Benefit. No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13 - Covenant Against Contingent Fees. The COMMISSION and the STATE warrant that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee excepting bona fide employees or bona fide established commercial or selling agencies maintained by the COMMISSION or the STATE for the purpose of securing business. For breach or violation of this warranty the GOVERNMENT shall have the right to annul this contract without liability or in its discretion to add to the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE 14 - Environmental Quality. During any construction, operation, and maintenance by any party to this agreement of any facilities, specific actions will be taken to control environmental pollution which could result from such activity and to comply with applicable Federal, State, and local laws and regulations concerning environmental pollution. Particular attention should be given to (1) reduction of air pollution by control of burning, minimization of dust, containment of chemical vapors, and control of engine exhaust gases, and of smoke from temporary heaters; (2) reduction of water pollution by control of sanitary faciilities, storage of fuels and other contaminants, and control of turbidity and siltation from erosion; (3) minimization of noise levels; (4) onsite and offsite disposal of waste and spoil; and (5) prevention of landscape defacement and damage.

ARTICLE 15 - Federal and State Laws.

(a) In acting under its rights and obligations hereunder, the COMMISSION and the STATE agree to comply with all applicable Federal and State laws and regulations, including but not limited to the provisions of the Davis-Bacon Act (40 U.S.C. 276a et seq.); the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333); Title 29, Code of Federal Regulations, Part 3; and Sections 210 and 305 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646).

(b) The COMMISSION and the STATE furnish, as part of this contract, an assurance (Exhibit C) that they will comply with Title VI of the Civil Rights Act of 1964 (78 Stat. 241, 42 U.S.C. 2000d, et seq.) and Department of Defense Directive 5500.11 issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations.

(c) Any discharges of water or pollutants into a navigable stream or tributary thereof resulting from the COMMISSION's facilities and operations undertaken under this contract shall be performed only in accordance with applicable Federal, State, and local laws and regulations.

ARTICLE 16 - Definitions.

(a) Project investment costs - The initial cost of the Project, including: land acquisition; construction; interest during construction on the value of land, labor, and materials used for planning and construction of the Project.

(b) Interest during construction - An amount of interest which accrues on expenditures for the establishment of Project services during the period between the actual outlay and the time the Project is first made available for water storage.

(c) Specific costs - The costs of Project features normally serving only one particular project purpose.

(d) Joint-use costs - The costs of features used for any two or more Project purposes.

(e) Contracting Officer - The person designated by the GOVERNMENT to perform its duties under this contract. The GOVERNMENT shall insure that such a person, or his successor, shall at all times be designated in writing to the COMMISSION.

(f) Plant-in-service date - This date is the date that the Project is physically available to initiate deliberate impoundment for water supply purposes.

(g) Annual operation and maintenance (O&M) expense - Annual expenses funded under the O&M, General account. These expenses include the daily project O&M costs as well as those O&M costs which are capitalized.

(h) Major replacement cost - Costs funded under the Construction, General account but not associated with initial Project investment costs.

(i) Fiscal Year - Refers to the GOVERNMENT'S fiscal year. This year begins on 1 October and ends on 30 September.

(j) Life of the Project - This is the physical life of the Project.

(k) Major Rehabilitation - This program is to facilitate accomplishment of significant, costly, infrequent rehabilitation work at the Project without unduly distorting the Operation and Maintenance General budget.

(l) The term municipal and industrial water supply shall include but is not limited to public water supply.

(m) Initial use - The first withdrawal of water by the COMMISSION for delivery to water users, not to include water withdrawn for the purpose of testing facilities installed by the COMMISSION for the purpose of withdrawing or delivering water pursuant to this contract.

(n) Project outlet works - The gates and spillway of the Clarence Cannon Dam.

(o) Present use storage - That which occurs when the COMMISSION begins taking water from future storage space pursuant to this contract.

(p) Average Annual usage - Average daily usage figured over an annual period, i.e., SUMMATION OF DAILY USAGE/365.

ARTICLE 17 - Limitations of State Liability.

(a) The parties to this contract understand the restraints and prohibitions on the assumption of future obligations and liabilities placed on the STATE by its constitution and statues, and therefore any other provisions of this contract not withstanding, all costs, expenses, quarantees, claims and payments of any other kind arising under or pursuant to this contract shall be conditioned upon the appropriation of funds therefor by the Missouri Legislature, and the STATE shall not be liable for the payment of any such sums unless funds for the payment thereof have been appropriated by the Missouri Legislature. In the event, however, that the Missouri Legislature shall elect not to appropriate funds in any STATE fiscal year for payments under this contract, then the rights of the STATE under this contract shall terminate and the STATE does agree to cease all water withdrawals until the Missouri Legislature does again appropriate funds for said contract and all overdue payments, including interest thereon, shall have been paid.

(b) In such event, wherein the Missouri Legislature shall have elected not to appropriate funds for payments under this contract and the STATE shall have ceased making water withdrawals, then the GOVERNMENT shall have the right to execute any agreements necessary in order to make said water supply storage space or portions thereof available to other interested entities. Said entities would be required to assume all of the obligations of the STATE as described in this contract with regard to the water supply storage space or portions thereof.

ARTICLE 18 - Recording of Contract. The parties agree that they shall execute a memorandum of agreement in a form suitable for recording under the laws of the State of Missouri.

ARTICLE 19 - Approval of Contract. This contract shall be subject to the written approval of the Secretary of the Army or his duly authorized representative and shall not be binding until so approved.

CONTRACT BETWEEN THE UNITED STATES OF AMERICA THE STATE OF MISSOURI AND THE CLARENCE CANNON WHOLESALE WATER COMMISSION FOR WATER STORAGE SPACE IN THE CLARENCE CANNON DAM AND MARK TWAIN LAKE PROJECT SALT RIVER, MISSOURI

This Contract is hereby entered into on this tenth day of March, 1988, by and between the UNITED STATES OF AMERICA, the STATE OF MISSOURI, and the CLARENCE CANNON WHOLESALE WATER COMMISSION.

IN WITNESS WHEREOF, the parties do hereby execute this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA	THE STATE OF MISSOURI	THE CLARENCE CANNON WHOLESALE WATER COMMISSION
DANIEL M. WILSON Colonel, CE Contracting Officer	FREDERICK A. BRUNNER Director Department of Natural Resources	
ROBERT W. PAGE Assistant Secretary of the Army (Civil Works)	JOHN D. ASHCROFT Governor of Missouri	CECIL V. FRETWELL Chairman

CERTIFICATION

I Gary M. Sokolik, Attorney for the CLARENCE CANNON WHOLESALE WATER COMMISSION, hereby certify that the foregoing agreement executed by Cecil V. Fretwell, of the COMMISSION is within the scope of his authority to act upon behalf of the _____, and that in my capacity as Attorney for the User, I find, with the exceptions and limitations stated in the agreement, that the COMMISSION is legally and financially capable of entering into the contractual obligations contained in the foregoing agreement and that, upon acceptance, it will be legally enforceable. Given under my hand, this 10th day of March 1988.

Gary M. Sokolik
Attorney for the CLARENCE CANNON
WHOLESALE WATER COMMISSION

DACW43-88-0037
Pg 20 of 27

CERTIFICATION

I Robert M. Lindholm, Assistant Attorney General for the STATE OF MISSOURI, hereby certify that the foregoing agreement executed by Frederick A. Brunner, of the STATE OF MISSOURI is within the scope of his authority to act upon behalf of the STATE OF MISSOURI, and that in my capacity as Assistant Attorney General for the STATE OF MISSOURI, I find, with the exceptions and limitations stated in the agreement, that the STATE OF MISSOURI is legally and financially capable of entering into the contractual obligations contained in the foregoing agreement and that, upon acceptance, it will be legally enforceable.

Given under my hand, this 10th day of March 1988.

Robert M. Lindholm
Assistant Attorney General for the
STATE OF MISSOURI

DACW 43-88-0037
Pg 21 of 27

EXHIBIT A

I - LAKE STORAGE

Feature	Elevation (ft., m.s.l.)	Usable Storage* (ac. ft.)	Percent of Conservation Storage	Percent of Water Supply Storage
Flood Control	606.0 - 638.0	864,000		
Conservation	567.2 - 606.0	399,500	100.00	
Water Supply	567.2 - 606.0	20,000	5.00	100.00
COMMISSION				
Present		0		0
Future		6,875		34.37
Others		13,125		65.63
Other Purposes	567.2 - 606.0	379,500	0	

* Storage remaining after 100 years of sedimentation from the date the project is operational.

II - ALLOCATION OF ESTIMATED CONSTRUCTION COST

Feature	Cost ($)	Percent of Project Joint-Use Construction Cost
Flood control	149,700,000	
Specific	2,300,000	
Joint-use	147,400,000	61.48
Recreation	73,100,000	
Specific	21,730,000	
Future (Specific)	9,970,000 (1)	
Joint-use	41,400,000	17.26
Water Supply	14,300,000	
Specific		
Joint-use	14,300,000	5.96
Hydropower	76,000,000	11.26
Specific	49,000,000	
Joint-Use	27,000,000	
Fish & Wildlife	10,900,000	
Specific	1,500,000	
Joint-Use	9,400,000	3.92
Navigation	300,000	
Specific		
Joint-Use	300,000	0.12
Road Betterments (specific)	5,700,000	
Total Project Joint Use Construction Cost	239,800,000	100.00
Total Project Construction Costs	330,000,000	100.00

(1) Costs of recreation currently deferred subject to 50-50 cost sharing with a local sponsor.

III - INVESTMENT COSTS TO BE REPAID BY COMMISSION FOR WATER SUPPLY STORAGE

Future Use:

Cost of 6,875 acre feet of water supply storage (34.37%) x $14,300,000	=	$4,914,910
Interest during Construction (1)	=	$1,133,270
Total Investment Future Use	=	$6,028,180
Total Investment Cost Under This Contract	=	$6,028,180

(1) Based on actual construction expenditures by year at project interest rate of 3.22

Formula to calculate interest:

Future Use:

$$\frac{\$\ 14,300,000}{\$298,577,373} \times \frac{6,875\ \text{Ac. Ft.}}{20,000\ \text{Ac. Ft.}} \times \$67,620,570 = \$1,113,270$$

EXHIBIT B

ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF DEFENSE DIRECTIVE
UNDER TITLE IV OF THE CIVIL RIGHTS ACT OF 1964

The CLARENCE CANNON WHOLESALE WATER COMMISSION and the STATE OF MISSOURI, hereinafter called Applicant-Recipients, hereby agree that they will comply with title VI of the Civil Right Act of 1964 (Public Law 88-353) and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 Code of Federal Regulations
Part 300, issued as Department of Defense Directive 5500.1b, 28 December 1964) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Directive, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant-Recipients receive Federal financial assistance from Department of the Army and HEREBY GIVE ASSURANCE THAT they will immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant-Recipients by the Department of the Army, assurance shall obligate the Applicant-Recipient, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant-Recipients for the period during which they retain ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant-Recipients for the period during which the Federal financial assistance is extended to it by Department of the Army.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant-Recipient by the Department, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Applicant-Recipients recognize and agree that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant-Recipients, their successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant-Recipients.

Sections IV and VII of Department of Defense Directive 5500.11 setting forth prohibited discriminatory actions and compliance information are attached.

THE CLARENCE CANNON WHOLESALE WATER COMMISSION

BY _____

STATE OF MISSOURI
(Applicant-Recipient)

BY _____

Dated _____

SECTIONS IV AND VII DEPARTMENT OF DEFENSE DIRECTIVE 5500.11

IV. POLICY

A. GENERAL. No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program to which this Directive applies.

B. SPECIFIC DISCRIMINATORY ACTION PROHIBITED.

1. A recipient under any program to which this Directive applies may not, directly or through contractual or other arrangements, on the ground of race, color, or national origin:

a. Deny an individual any service, financial aid, or other benefit provided under the program.

b. Provide any service, financial aid, or other benefit to an individual which is different, or is provided in a different manner, from that provided to others under the program;

c. Subject an individual to segregation or separate treatment in any matter related to his receipt of any service, financial aid, or other benefit under the program;

d. Restrict an individual in any way in the enjoyment of any advantage or privilege enjoyed by other receiving any service, financial aid, or other benefit under the program;

e. Treat an individual differently from others in determining whether he satisfies any admission, enrollment, quota, eligibility, membership or other requirement or condition which individuals must meet in order to be provided any service, financial aid, or other benefit provided under the program.

f. Deny an individual an opportunity to participate in the program through the provision of services or otherwise or afford him an opportunity to do so which is different from that afforded others under the program.

2. A recipient, in determining the types of services, financial aid, or other benefits, or facilities which will be provided under any such program, or the class of individuals to whom, or the situations in which, such services, financial aid, other benefits, or facilities will be provided under any such program, or the class of individuals to be afforded an opportunity to participate in any such program, may not, directly or through contractual or other arrangements, utilize criteria or methods of administration which have the effect of subjecting individuals to discrimination because of their race, color, or national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program as respect individuals of a particular race, color, or national origin.

3. As used in this Section the services, financial aid, or other benefits provided under a program receiving Federal financial assistance shall be deemed to include any service, financial aid, or other benefit provided in or through a facility provided with the aid of Federal financial assistance.

4. The enumeration of specific forms of prohibited discrimination in this Subsection does not limit the generality of the prohibition in Subsection IV. A. of this Section.

VII. Compliance Information

A. Cooperation and Assistance. Each responsible Department official shall to the fullest extent practicable seek the cooperation of recipients in obtaining compliance with this Directive and shall provide assistance and guidance to recipients to help them comply voluntarily with this Directive.

B. Compliance Reports. Each recipient shall keep records and submit to the responsible Department official timely, complete and accurate compliance reports at such times, and in such form and containing such information, as the responsible Department official may determine to be necessary to enable him to ascertain whether the recipient has complied or is complying with this Directive. In the case of any program under which a primary recipient extends Federal assistance to any other recipient, such other recipient shall also submit compliance reports to the primary recipient as may be necessary to enable the primary recipient to carry out its obligations imposed pursuant to this Directive.

C. Access to Sources of Information. Each recipient shall permit access by the responsible Department official during normal business hours to such of its books, records, accounts, and other sources of information, and its facilities as may be pertinent to ascertain compliance with this Directive. Where any information required of a recipient is in the exclusive possession of any other institution of person and this institution or person shall fail or refuse to furnish this information, the recipient shall so certify in its report and shall set forth what efforts it has made to obtain the information.

D. Information to Beneficiaries and Participants. Each recipient shall make available to participants, beneficiaries, and other interested persons such information regarding the provisions of this Directive and its applicability to the program under which the recipient receives Federal financial assistance, and make such information available to them in such manner, as the responsible Department official finds necessary to apprise such persons of the protections against discrimination assured them by the Act and this Directive.

Appendix D

From:	Sullivan, Shawn F MVS
To:	Bacon, Bob; Collier, Andrea; Upendram, Sreedhar
Cc:	Levins, William P MVS; Plaxco, Cherilyn G SWD @ SWL; Neher, Lynn N MVS; Filer, Pat E MVS; Lyerla, Joie R MVS; Spence, Sandra J MVS; Miller, Gregory B MVN
Subject:	Mark Twain Lake Water Supply Contract No. DACW43-88-C-0036 (Future Use)
Date:	Friday, December 04, 2015 9:32:35 AM

Andrea/Bob/Sreedhar, in follow up to our November 5, 2015 meeting one outstanding item was in regard to whether or not the State of Missouri was eligible for potential relief under Section 1046(d) of WRDA 2014 for Contract No DACW43-88-C-0036.

The primary issue was that 1046(d) identifies that State or local interest may request a release of any right to future water storage under WRRDA 2014 allocated for future use water supply prior to November 17, 1986. As you know the contract referenced above was executed in March 1988.

Based on further coordination, we have been informed that the interpretation is while the contract was signed after 1986, negotiations had been initiated prior to 1986 with assurances as far back as 1965, therefore the contract falls within the spirit of the legislation.

Be advised that the deadline is to have an initial plan submitted to the St. Louis District office (Attention Mr. Lynn Neher) and PCX by January 1, 2016. There will be time (January 1 to March 31, 2016) to work on the plan between the District, the User, and the PCX to ensure completeness by MSC and HQ to ASA(CW).

If you have questions regarding the nature of this response please call or e-mail. Should you have specific questions on the development of the initial plan please contact Mr. Lynn Neher and Ms. Cherilyn Plaxco in the cc line of this message.

Thank you,
Shawn Sullivan
U.S. Army Corps of Engineers
Strategic Planning Coordinator
St. Louis District
(o) 314-331-8580
(c) 314-303-4778

DEPARTMENT OF THE ARMY
US ARMY ENGINEER DIVISION, SOUTHWESTERN
1100 COMMERCE STREET, SUITE 831
DALLAS TX 75242-1317

REPLY TO
ATTENTION OF

CESWD-PDP

21 March 2016

MEMORANDUM FOR Commander, Mississippi Valley Division

SUBJECT: Water Resources Reform Development Act of 2014 Section 1046(d) Recommendation

1. In general, Section 1046(d) of the Water Resources Reform and Development Act of 2014 (WRRDA 2014) amends the Water Supply Act of 1958, 43 U.S.C. 390b to provide that, until January 1, 2016, the Secretary may accept from a State or local interest (the User) a Plan for the conversion of future use storage to present use within a 10-year timeframe. The Plan shall include a 10-year timetable for conversion of future use storage to present use and a schedule of actions that the User agrees to carry out over a 10-year period, in cooperation with the Secretary to seek new and alternative users of the storage.

2. The St. Louis District received a 1046(d) Plan for future use storage at Mark Twain Reservoir from the State of Missouri Department of Natural Resources on December 31, 2015. The Plan (enclosed) requests: release from 5,600 acre-feet of future use water supply storage, adjustment of the cost of water supply storage, and relief of operation and maintenance expenses on future use water supply storage.

3. Per the timetables provided in the Section 1046(d) Implementation Guidance (enclosed), the Major Subordinate Command (MSC) has an estimated 30-day review period. The MSC may request additional information to be submitted by the User to complete a plan in accordance with the information required in the Implementation Guidance. The MSC and Planning Center of Expertise (PCX) shall supplement the Plan with a Fact Sheet (enclosed). The MSC will transmit each Plan and Fact Sheet to the appropriate Headquarters Regional Integration Team (RIT), who will have 30 days to consolidate and transmit to ASA(CW). ASA(CW) will provide to the User a written decision on whether ASA(CW) recommends release of storage rights not later than June 30, 2016.

4. The Water Management and Reallocation Studies Planning Center of Expertise (WMRS PCX) recommends the release of 5,600 acre-feet of future use storage; however, the WMRS PCX does not recommend the other parts of the User's Plan which are outside of the authority of Section 1046(d).

5. If you have any questions or concerns regarding this review, please contact Ms. Cherilyn Plaxco, CESWD-PDP, at 501-324-5036.

PLAXCO.CHERILYN.GIBBS.1258329674

Digitally signed by PLAXCO.CHERILYN.GIBBS.1258329674
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=PLAXCO.CHERILYN.GIBBS.1258329674
Date: 2016.03.22 15:43:34 -05'00'

Encl

CHERILYN PLAXCO
Technical Director, WMRS PCX

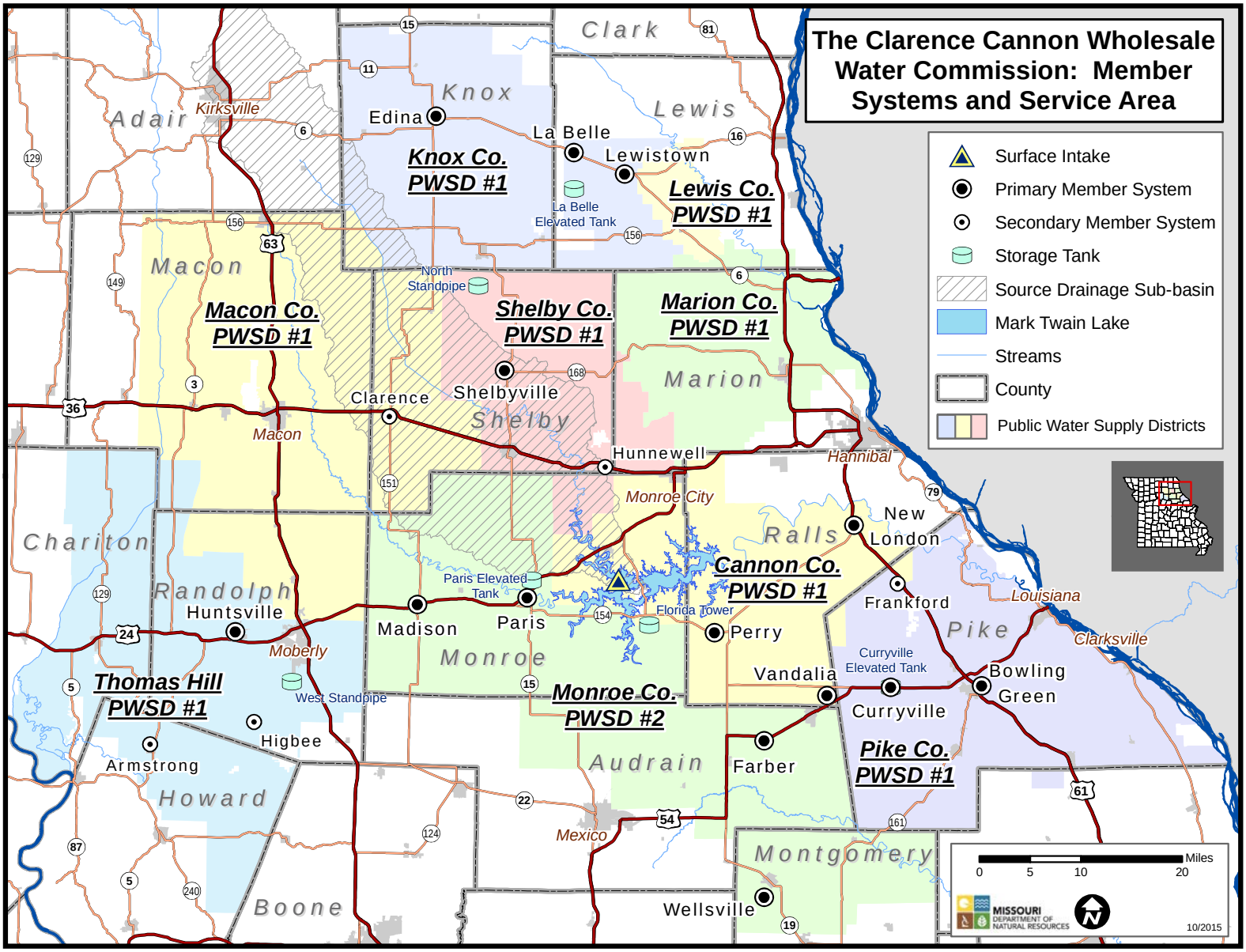
CF: (w/encls)
CEMVD-PD-SP (Hollis)
CEMVS-OD-T (Neher)
CEMVS-PM-F (Sullivan)

Encl 3

Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

CCWWC Map of Coverage Fall 2015.pdf

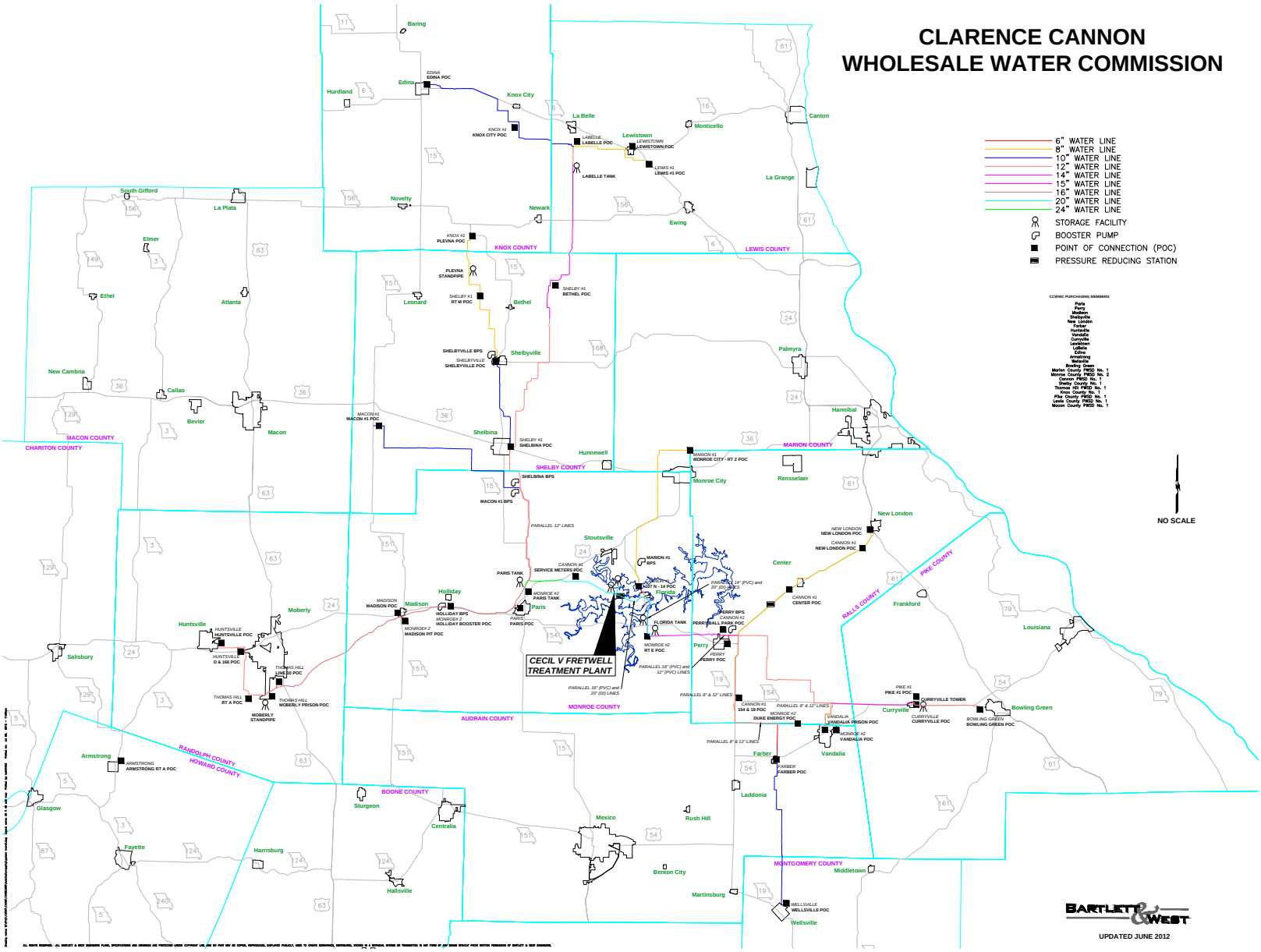

The Clarence Cannon Wholesale Water Commission: Member Systems and Service Area
Surface Intake
Primary Member System
Secondary Member System
Storage Tank
Source Drainage Sub-basin
Mark Twain Lake
Streams
County
Public Water Supply Districts
Clark
Knox
Lewis
Adair
Kirksville
Edina
La Belle
Lewistown
Knox Co. PWSD #1
Lewis Co. PWSD #1
La Belle Elevated Tank
Macon
North Standpipe
Macon Co. PWSD #1
Shelby Co. PWSD #1
Marion Co. PWSD #1
Marion
Clarence
Shelbyville
Shelby
Macon
Hunnewell
Hannibal
Monroe City
New London
Ralls
Cannon Co. PWSD #1
Chariton
Randolph
Huntsville
Paris Elevated Tank
Madison
Paris
Florida Tower
Perry
Frankford
Louisiana
Pike
Clarksville
Moberly
Monroe
Curryville Elevated Tank
Vandalia
Bowling Green
Thomas Hill PWSD #1
West Standpipe
Monroe Co. PWSD #2
Curryville
Higbee
Armstrong
Audrain
Farber
Pike Co. PWSD #1
Howard
Mexico
Montgomery
Boone
Wellsville
Miles
0 5 10 20
MISSOURI DEPARTMENT OF NATURAL RESOURCES
10/2015

Additional Proposal Information

(This is as uploaded, a blank page will show if nothing was submitted)

CCWWC system overall-36 X 48 wall map.pdf

CLARENCE CANNON WHOLESALE WATER COMMISSION



ALL RIGHTS RESERVED. ALL BARTLETT & WEST DESIGNED PLANS, SPECIFICATIONS AND DRAWINGS ARE PROTECTED UNDER COPYRIGHT LAW AND SO THEY MAY NOT BE COPIED, REPRODUCED, DISPLAYED PUBLICLY, USED TO CREATE DERIVATIVE DRAWINGS, DERIVATIVE WORKS OR TRANSMITTED IN ANY FORM BY ANY MEANS WITHOUT PRIOR WRITTEN PERMISSION OF BARTLETT & WEST ENGINEERS.