

**COOPERATIVE AGREEMENT
FOR THE TO'HAIILEE WATER
SUPPLY PROJECT**

AUGUST 28, 2006

**COOPERATIVE AGREEMENT FOR THE
TO'HAJIILEE WATER SUPPLY PROJECT**

THIS AGREEMENT made and entered into this 28th day of August, 2006 by the Navajo Nation, the Albuquerque-Bernalillo County Water Utility Authority, and the To'Hajiilee Chapter

RECITALS

WHEREAS, the Navajo Nation, the Albuquerque-Bernalillo County Water Utility Authority (Authority), and the To'Hajiilee Chapter (Chapter) collectively referred to in this Cooperative Agreement as the parties, face serious water supply challenges; and

WHEREAS, the Navajo Nation is a federally recognized Indian nation as provided for in section 101(2) of the Federally Recognized Indian Tribe List of 1994 (Public Law 103-454, 25 U.S.C. 497 a(2)); and

WHEREAS, the Authority is a political subdivision of the State of New Mexico providing water and waste water services in Bernalillo County; and

WHEREAS, New Mexico Senate Bill 887 (Laws 2003, Chapter 437, codified as NMSA 1978, Section 72-1-10) created the Albuquerque-Bernalillo County Water Utility Authority, effective June 21, 2003; and

WHEREAS, the legislation creating the Authority requires that "all functions, appropriations, money, records, equipment and other real and personal property pertaining to the Albuquerque water and waste water utility shall be transferred to the Albuquerque-Bernalillo water utility authority." NMSA 1978, Section 72-1-10 (2003); and

WHEREAS, the Canonicito Navajo Reservation and Canonicito Band of Navajo Indians are recognized by the federal government; and

WHEREAS, the Chapter is one of 110 Navajo Nation Chapters duly recognized as a unit of local Navajo Nation government pursuant to Navajo Nation Council Resolution CAP-34-98. In 2001, the Chapter changed its name from Canonicito to To'Hajiilee which means in Navajo "lifting water up by rope and container"; and

WHEREAS, the Chapter includes 77,965.05 acres, most of which are within Bernalillo County; and

WHEREAS, in 2000 the U.S. Census Bureau estimated that the population of the Chapter was 1,614, and in the 2000-2001 Comprehensive Economic Development Strategy the Navajo Division of Economic Development reported that unemployment exceeded 67 percent and annual per capita income was less than \$4,000. A sustainable municipal water supply is critical for economic development; and

WHEREAS, in April 2002, the Navajo Nation Department of Water Resources (NDWR) completed a technical memorandum entitled *Final Draft, Technical Memorandum To'Hajiilee Water Supply Project* which documented the existing water quality problems of the Chapter's groundwater supply and explored opportunities to import water from the City of Albuquerque (City) and the Rio Grande River. The NDWR concluded that the preferred alternative for a sustainable water supply to meet the 2040 water demand of approximately 800 acre-feet per year is the Albuquerque to To'Hajiilee Water Supply Project (Project); and

WHEREAS in a letter dated May 2002 Kelsey A. Begaye, President of the Navajo Nation to Rick Gold, Regional Director, Bureau of Reclamation (Reclamation) initiated the contract process to provide a water supply from the San Juan Chama Project for the Chapter (Exhibit A); and

WHEREAS, in a letter dated June 2002 from Kenneth Maxey, Area Manger, Bureau of Reclamation to Kelsey A. Begaye, Mr. Maxey responded that only 2,990 acre-feet of San Juan Chama Project water remains unallocated and that this water is being held by the Department of the Interior to use in future water right settlements. Therefore, no San Juan Chama Project water was available at that time (Exhibit B); and

WHEREAS, in January 2003, Chapter and NDWR representatives met with the City to explore utilizing the City's public water system to convey water for the Chapter; and

WHEREAS, in a letter dated April 2003 from Joe Shirley, President of the Navajo Nation to Lieutenant Colonel Hurst, President Shirley requested the assistance of the U.S. Army Corps of Engineers for the water system at the Chapter under section 593 of Water Resources Development Act of 1999 (Exhibit C); and

WHEREAS, in a letter dated May 2003 from President Joe Shirley to Rick Gold, Bureau of Reclamation Regional Director, President Shirley requested that the Reclamation work pro-actively on this water project (Exhibit D); and

WHEREAS, in June 2003, the Army Corps of Engineers responded to the Navajo Nation stating that assistance for water related environmental infrastructure, resources protection, and development projects may be available under Section 593 of the Water Resource Development Act of 1999 (Exhibit E); and

WHEREAS on February 2004, Tetra Tech RMC Incorporated, under a contract with Reclamation, completed a report entitled *Summary Report, To'Hajiilee Water Supply Alternative Evaluation*. Tetra Tech RMC Incorporated evaluated groundwater wells, the Albuquerque Water Transmission Line, and a conjunctive alternative to meet the 2040 demands of approximately 800 acre-feet per year. Scenario 1 of the proposed Albuquerque to To'Hajiilee water transmission line has a length of approximately 20 miles and an estimated construction and engineering cost of \$7.0 million (Exhibit F); and

WHEREAS, in June 2005, the Chapter passed a resolution expressing the Chapter's desire for a reliable water source for growth and economic development, and supporting the efforts of the NDWR to develop projects to conserve the existing water resources and meet future water supply needs of the Chapter (Exhibit G).

NOW THEREFORE, inconsideration of the above, the parties hereto agree as follows:

Section 1. A cooperative effort by the Navajo Nation, the Authority, and the Chapter to proceed with project planning and development is in the best interest of these parties.

Section 2. The project will be developed in a manner that is consistent with the water rights of the parties.

Section 3. The parties will cooperatively investigate alternative project configurations, and work together to resolve issues affecting the implementation of the project.

Section 4. The planning efforts among the parties will be voluntary and are without prejudice to any position any party may assert in a general stream adjudication, or in any other matter concerning the water resources of the parties.

Section 5. The project shall have a single purpose project serving the municipal demands of the To'Hajiilee Chapter at a Navajo Nation point of service that will not serve other water users without the mutual consent of the parties and consistent with the terms of this agreement.

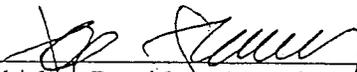
Section 6. The parties anticipate that if the Authority's public water distribution system is utilized, the Navajo Nation will provide sufficient net new water for the To'Hajiilee Water Project. The water secured for the project by the Navajo Nation and Chapter will be treated and conveyed at Authority ordinance rates.

Section 7. The Navajo Nation and Chapter acknowledge and agree that under no circumstance will the Authority incur any net new expenses to plan, design, construct, maintain or provide water rights for the project. The Navajo Nation and Chapter agree to provide net new water to the Authority in a manner consistent with existing Authority permits and agree to work cooperatively to secure the use of the net new water for the purpose of this agreement.

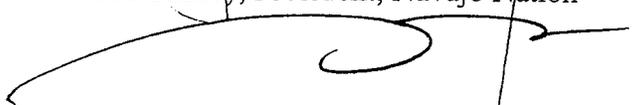
Section 8. The Authority will coordinate with the Navajo Nation and Chapter in future planning related to this project.

Section 9. The Navajo Nation and Chapter will develop a drought management plan and establish a groundwater reserve for use in drought periods.

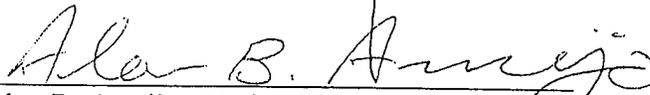
IN WITNESS OF, the undersigned have caused the Agreement to be executed as of the day and year set forth above.



Joe Shirley, President, Navajo Nation



Tony Secatero, President, To'Hajiilee Chapter



Alan B. Armijo, Chair, Albuquerque Bernalillo County Water Utility Authority

May-07-02 03:16pm From-Water Management Branch

+5207254126

1-533 P.002/002 P-002



THE NAVAJO NATION
OFFICE OF THE PRESIDENT
Post Office Box 9000, Window Rock, AZ 86515
PHONE (928) 871-6353 * FAX (928) 871-4025

EXHIBIT A

ELSEY A. BEGAYE
PRESIDENT

TAYLOR MCKENZIE, M.D.
VICE PRESIDENT

Rick Gold, Regional Director
Bureau of Reclamation
Upper Colorado Regional Office
125 South State Street, Room 6107
Salt Lake City, UT 84138-1147

Re: Request for Water Contract from San Juan-Chama Project for the Tohajiilee, NM

Dear Mr. Gold,

By this letter, the Navajo Nation requests the Bureau of Reclamation to begin the contract process that will provide a water supply from the San Juan-Chama Project for the projected municipal demands at Tohajiilee Chapter. Specifically, the Navajo Nation requests a fifty (50) year contract in the amount of 825 acre-feet of water per year.

The Navajo Nation and the City of Albuquerque are collaborating on the Tohajiilee Water Supply Project to improve the reliability, quality, capacity, and emergency storage of the municipal water system that serves Tohajiilee Chapter. Enclosed is a copy of the *Final Draft Technical Memorandum, Tohajiilee Water Supply Project, April 04, 2002*. This report describes the project and presents an appraisal level cost estimate. The report also includes the methodology utilized to justify this contract request.

Staff from the Navajo Nation Department of Water Resources are prepared to work with your staff and can provide a briefing at your earliest possible convenience. Please have your staff contact Dr. John Leeper, Manager, Water Management Branch at (928)729-4004 if additional information is needed.

Your favorable consideration of this request is appreciated.

Sincerely,

Kelsey A. Begaye
President

cc: Carol DeAngelis, Area Manager, Western Colorado Area Office, Bureau of Reclamation
Ken Maxey, Area Manager, Upper Colorado Region Office, Bureau of Reclamation

FAX TRANSMITTAL

of pages >

To	John Keeper	From	L. Walden
Dept./Agency	NN-DWR	Phone #	
Fax #	928-729-4126	Fax #	
NSN 7540-01-917-7288		5099-101	GENERAL SERVICES ADMINISTRATION

ALB-440
WTR-1.10

JUN 12 2002

EXHIBIT B

Kelsey A. Begayc, President
The Navajo Nation
Office of the President
PO Box 9000
Window Rock AZ 86515

Subject: San Juan-Chama Project Water Contracts

Dear Mr. Begayc:

Your letter to Rick Gold, Regional Director, requesting a water contract for the Tohajiilee Water Supply Project was referred to me for response. In it the Navajo Nation requests an allocation of San Juan-Chama Project (Project) water in the amount of 825 acre-feet per year.

The Project water supply represents the State of New Mexico's allocation of Colorado River water under the Colorado River Compact of December 21, 1928, which states, in part, that

The Chief Official of each signature State charged with the administration of water rights, together with the Director of the United States Reclamation Service and the Director of the United States Geological Survey, shall cooperate, ex-officio: (a) To promote the systematic determination and coordination of the facts as to flow, appropriation, consumption and use of the water in the Colorado River Basin, and the interchange of available information in such matters.

Reclamation, in cooperation with the New Mexico State Engineer's Office, has made allocations of the State of New Mexico's Project water supply over a period of several years. The Bureau of Reclamation does not unilaterally allocate Project water.

Only 2,990 acre-feet of Project water remains unallocated. This remaining quantity is being held by the Department of the Interior for use in future water rights settlements in the Taos area. Therefore, there is no Project water available at this time for allocation to the Navajo Nation.

I would be happy to meet with representatives of the Navajo Nation to discuss this matter further. Please contact Ms. Kim Greenwood, of my staff, at (505) 248-5371, if such a meeting would be beneficial. If you have any further questions, please do not hesitate to call me at (505) 248-5357.

Sincerely,

(SGD.) Kenneth G. Maxey

Kenneth G. Maxey

Area Manager

bc: Regional Director, Salt Lake City UT,
Attention: UC-446

ALB-510

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**THE
NAVAJO
NATION**

P.O. Box 9000 • WINDOW ROCK, ARIZONA • 86515

PRESIDENT
JOE **SHIRLEY, JR.**
VICE PRESIDENT
FRANK J. **DAYISH, JR.**

U.S. Army Corps of Engineers, Albuquerque District
ATTN: Program & Project Management
4101 Jefferson Plaza, NE
Albuquerque, NM 87109

"EXHIBIT C"

SUBJECT: Request for assistance for the Tohajiilee Water Supply Project, Bernalillo County,
New Mexico

Dear LTC Hurst:

This letter is to seek the assistance of the U.S. Army Corps of Engineers under Section 593 of the Water Resources Development Act of 1999 for design and construction of water-related infrastructure needed by Tohajiilee Chapter of the Navajo Nation in Bernalillo County.

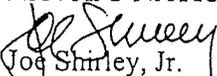
The Tohajiilee public water system wells do not yield enough water for current and future demands, and the quality of water is poor. One well was recently shut down due to water quality problems. The Tohajiilee Chapter water demand cannot be easily met with ground water because it is located within the western portion of the Rio Grande Rift Basin. This area of the basin is noted for low recharge rates, poor water quality, and difficult aquifer characterization.

The Navajo Nation Department of Water Resources completed a *Final Draft, Technical Memorandum, Tohajiilee Water Supply Project* report in April of 2002. This technical memorandum describes the proposed project. The preferred Albuquerque Alternative has a total capital cost of \$7.5 million. The Bureau of Reclamation funded an appraisal-level design and engineering report to be completed in May 2003. We anticipate using the Reclamation report as a basis for approaching Congress for appropriations.

Any help or assistance in support of this initiative would be most appreciated by the Tohajiilee Chapter and the Navajo Nation. Thank you for your consideration of this matter. Please contact Mr. Arvin Trujillo, Division of Natural Resources at (928)871-6592 or Mr. Johnnie Francis, Navajo Department of Water Resources at (928)729-4003 if you have any questions regarding the Project.

Sincerely,

NAVAJO NATION


Joe Shirley, Jr.
President

cc: Arvin Trujillo, Executive Director, Division of Natural Resources
Johnnie Francis, Director, Department of Water Resources



**THE
NAVAJO
NATION**

P.O. Box 9000 • WINDOW ROCK, ARIZONA • 86515

PRESIDENT
JOE SHIRLEY, JR.
VICE PRESIDENT
FRANK J. **DAYISH, JR.**

Rick Gold, Regional Director
Bureau of Reclamation
Upper Colorado Regional Office
125 South State Street, Room 6107
Salt Lake City, Utah 84138-1147

"EXHIBIT D"

SUBJECT: Request for San Juan Water Contract from San Juan-Chama Project for Tohajiilee, New Mexico

Dear Mr. Gold:

This letter is in response to your June 12, 2002 letter suggesting that there is no San Juan-Chama Project (Project) water available for Tohajiilee, New Mexico. In that letter you suggest that Reclamation, in cooperation with the New Mexico State Engineer's Office, have made allocations of the State of New Mexico's Project water supply over a period of several years. You also state that Reclamation does not unilaterally allocate Project water, and that no Project water is available at this time.

The Navajo Nation is not suggesting that Reclamation should respond to its request by unilaterally allocating Project water. The Navajo Nation is willing to work with the State of New Mexico on this issue. However, as a Federal Trustee, the Navajo Nation expects that Reclamation will pro-actively advocate a solution to the Tohajiilee water needs.

The Navajo Nation has proposed a water project that will address Tohajiilee's future water demands. The Navajo Nation is exploring the possibility of partnering with the City of Albuquerque on this project. If Reclamation has concluded that no Project water is available for Tohajiilee, then what solution is Reclamation proposing?

In your June 12, 2002 letter you propose a meeting to discuss this matter further. We will be contacting your office in the near future to set up this meeting.

Sincerely,

THE NAVAJO NATION


Joe Shirley, Jr
President

cc: Arvin Trujillo, Executive Director, Division of Natural Resources
Johnnie D. Francis, Director, Department of Water Resources



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA NE
ALBUQUERQUE NM 87109-3435



JUN 24 2003

Programs and Project Management Division
Military/SFO Branch

"EXHIBIT E"

Honorable Joe Shirley, Jr.
President, Navajo Nation
P.O. Box 9000
Window Rock, Arizona 86515

Dear Mr. Shirley:

Thank you for your April 2003 letter requesting assistance under the U.S. Army Corps of Engineers Section 593 program for the water system at the Tohajiilee Chapter.

The Section 593 program was authorized in the Water Resources Development Act of 1999 for water related environmental infrastructure and resource protection and development projects. Under this program, project costs are shared on a 75 percent federal and 25 percent non-federal basis. The program is authorized for a total program amount of \$33 million including the non-federal funding through the 2006 fiscal year.

Your particular project may also be eligible under the Rural Utilities Service (RUS) of the U.S. Department of Agriculture Rural Development. This program also provides up to 75 percent federal assistance for utility projects. I have asked Mr. Pete Doles, my Section 593 Program Manager, to facilitate a discussion between your Water Management Branch, the RUS and our office to consider all of the opportunities available to the Chapter to accomplish this project. Mr. Doles will be arranging this meeting with your staff next week.

Please call my office at (505) 342 3430 or Mr. Doles at (505) 342 3203 if you have any questions. Thank you again for your interest in our programs.

Sincerely;

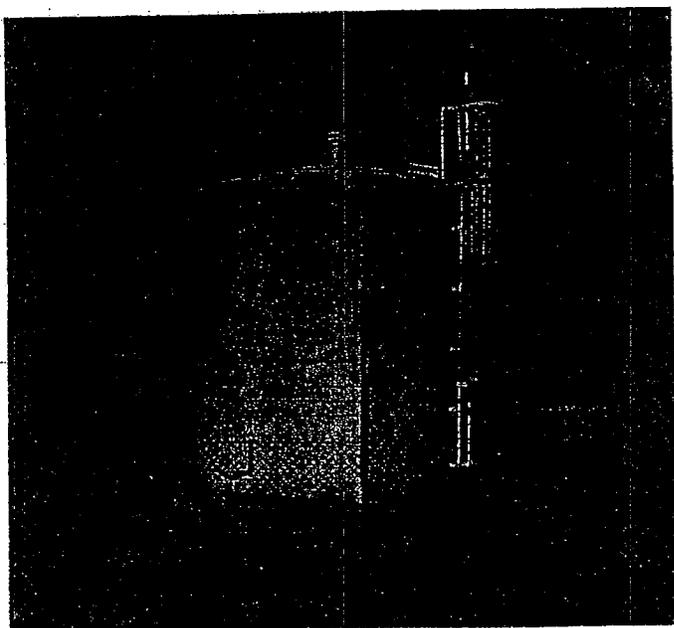
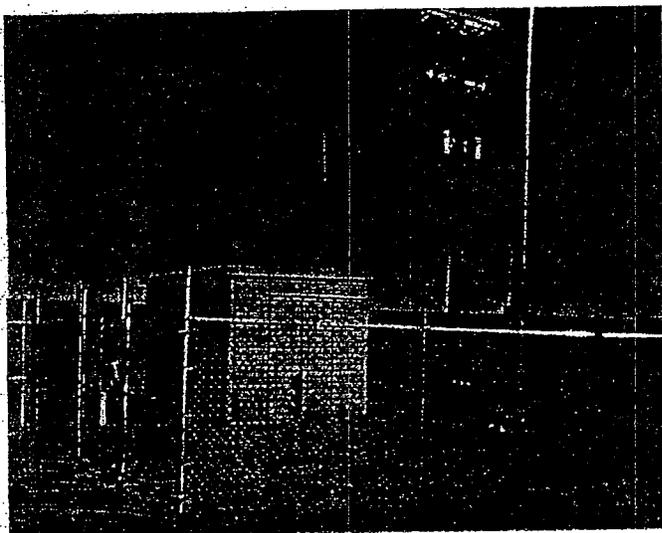
D. E. Gronewold
Deputy District Engineer for
Project Management



TETRA TECH RMC

“EXHIBIT F”

SUMMARY REPORT
TOHAJILÉE WATER SUPPLY
ALTERNATIVES EVALUATION
FEBRUARY 2004



EXECUTIVE SUMMARY

The Navajo Nation Chapter of Tohajiilee, formerly known as the Canoncito Chapter, is located about 20 miles west of Albuquerque, New Mexico. The potable water supply system for Tohajiilee consists of multiple groundwater wells and a distributions system, which has a history of maintenance, mechanical, and water quality problems. The existing water supply only marginally meets the current water demands placed on the system and is inadequate for meeting future demands. Improvements to the raw water supply, treated water storage facilities, and distribution system are required in order to satisfy the future raw water requirements and to provide dependability and redundancy to the water supply.

Future raw water requirements for Tohajiilee were estimated based upon projected future population and per capita water use in the community. A future growth rate of 2.50 percent is adopted for purposes of projecting future water demands. The per capita water demand for Tohajiilee is projected to be 160 gallons per capita per day (gpcd) by the year 2020. The following table summarizes the year 2000 and estimated future population and water demands for Tohajiilee.

	2000	2020	2040
Population	1,727	2,830	4,637
Average Daily Demand (mgd)	0.12	0.45	0.74
Annual Demand (acre-feet)	134.4	504.1	828.9
Peak Daily Demand (mgd)	0.25	0.91	1.48

Three alternatives for meeting the future raw water delivery requirements were identified and examined at an appraisal level.

- ▶ **Albuquerque Transmission Line** - This alternative connects the Tohajiilee waster system to the neighboring Albuquerque municipal water system to provide a clean, sustainable drinking water supply. The project would require the construction of approximately 20 miles of 10-inch or 12-inch diameter pipeline to connect the two systems. Additionally, one or more pump stations would be required along with additional treated water storage capacity in the Tohajiilee area. This alternative would provide a sustainable supply of water whereas the sustainability of groundwater, as proposed for other the alternatives, is not well established. Most significantly, this alternative does not require the construction and maintenance of water treatment facilities at Tohajiilee.
- ▶ **Groundwater Wells** - This alternative includes the addition of groundwater wells to the existing Tohajiilee water supply system. New groundwater wells have recently been developed in the Tohajiilee area with some success with regard to yield. The yield of two recently developed wells are in the range of 130 gpm to 250 gpm. The ultimate raw water demand of Tohajiilee could potentially be met with as few as five wells. However, the yield of older wells in the Tohajiilee system has diminished significantly over time and as a result, the sustainability of groundwater at Tohajiilee is questionable. Additionally, the quality of groundwater at Tohajiilee is relatively poor, particularly with regard to secondary drinking water standards. Water treatment options were considered with this alterative, which significantly impact the project costs. Additional investigations are recommended to determine the sustainability of the groundwater supplies prior to pursuing this alternative.

- ▶ **Conjunctive Sources** - This alternative includes a combination of the Albuquerque Transmission Line Alternatives and the Groundwater Wells Alternative. The existing wells at Tohajiilee would be utilized for water supply. A transmission line from Albuquerque's municipal water system would convey the remaining water required to meet the 2040 demand in the Tohajiilee Chapter. The Albuquerque Pipeline would be constructed with a capacity of approximately 690 gpm. The combined sources would be capable of meeting the projected 2040 demand. It is estimated that limited water treatment would be required for the groundwater.

The following table summarizes the present worth costs for each alternative:

<i>Alternative</i>	<i>Albuquerque Transmission Line</i>	<i>Groundwater Wells</i>	<i>Conjunctive Sources</i>
Construction & Engineering	\$7.0 M	\$3.5 M	\$7.2 M
Energy, Operation & Maintenance (net present value)	\$7.1 M	\$10.9 M	\$6.6 M
Total Project	\$14.1 M	\$14.4 M	\$13.8 M

The Groundwater Wells Alternative is not recommended primarily because of the need for construction and operation of water treatment facilities at Tohajiilee. In addition, the sustainability of groundwater supplies in the Tohajiilee area is not certain. All three alternatives are nearly equal in total project cost. For these reasons, it is recommended to pursue either the Albuquerque Transmission Line or the Conjunctive Sources Alternative.

Table 8.1

Tohajiilee Water Supply Alternatives Evaluation
COST COMPARISON OF PROJECT ALTERNATIVES

	Albuquerque Transmission Line					Groundwater Wells	Conjunctive Alternative
	Powerline Alignment		Route 40 Alignment				
	Scenario 1	Scenario 2	Scenario 1	Scenario 2			
Construction Cost	\$5.1 M	\$5.4 M	\$5.6 M	\$5.9 M	\$2.5 M	\$5.2 M	
Contingency @ 20%	\$1.0 M	\$1.1 M	\$1.1 M	\$1.2 M	\$0.5 M	\$1.0 M	
Direct Construction Cost	\$6.1 M	\$6.5 M	\$6.7 M	\$7.1 M	\$3.0 M	\$6.2 M	
Engineering @ 15%	\$0.9 M	\$1.0 M	\$1.0 M	\$1.1 M	\$0.5 M	\$0.9 M	
Total Construction & Engineering Cost	\$7.0 M	\$7.5 M	\$7.7 M	\$8.2 M	\$3.5 M	\$7.2 M	
Energy Cost	\$1.9 M	\$2.0 M	\$1.9 M	\$2.0 M	\$2.9 M	\$2.2 M	
Water Fee Cost	\$5.0 M	\$5.0 M	\$5.0 M	\$5.0 M	-	\$3.9 M	
Operation & Maintenance Cost	\$0.3 M	\$0.4 M	\$0.3 M	\$0.4 M	\$7.9 M	\$0.5 M	
Total Energy, Operation, & Maintenance	\$7.1 M	\$7.4 M	\$7.1 M	\$7.4 M	\$10.9 M	\$6.6 M	
Total Project	\$14.1 M	\$14.9 M	\$14.8 M	\$15.6 M	\$14.4 M	\$13.8 M	

Notes:

1. All costs are present worth based on a discount rate of 2.5% and a 37 year project life (2004 - 2040).
2. Scenario 1 utilizes a 10-inch diameter pipeline while Scenario 2 utilizes a 12-inch diameter pipeline.

Table 8.2

**Tohajiilee Water Supply Alternatives Evaluation
Feasibility Level Cost Estimate
Albuquerque Pipeline - Existing Utility Corridor Alignment - Design Scenario # 1
(see Plate # 2)**

Item Description	Qty	Units	Unit Cost	Cost	PW Cost
<u>Potable Water Piping from Albuquerque</u>					
1. Pipeline (10-inch)	91,250	LF			
- Rock Excavation (10%)	9,125	LF	\$65	\$593,125	\$593,125
- Normal Excavation (90%)	82,125	LF	\$40	\$3,285,000	\$3,285,000
2. Booster Pump Stations	3				
- Pump Station and Pumps	129	HP	\$2,000	\$258,000	\$258,000
- Annual Energy Cost (2004 - 2020)	1	LS	\$62,094	\$62,094	\$851,443
- Replacement Pumps (2040 capacity)	210	HP	\$400	\$84,000	\$55,204
- Annual Energy Cost (2020 to 2040)	1	LS	\$97,636	\$97,636	\$1,000,295
- Annual Operation/Maintenance	1	LS	\$12,900	\$12,900	\$309,049
3. Connection Fee	1	LS	\$200,000	\$200,000	\$200,000
4. Water Fees (2004 - 2020)	105,120	1000 Gal.	\$1.30	\$136,656	\$1,873,854
Water Fees (2020 - 2040)	218,124	1000 Gal.	\$1.30	\$283,561	\$2,905,119
<u>Tohajiilee Water System Improvements</u>					
5. Additional Water Storage					
- 2020 Storage	2,722	1000 Gal.	\$350	\$952,560	\$626,018
- 2040 Storage	1,728	1000 Gal.	\$350	\$604,800	\$242,565
Capital Cost Sub-Total (Present Worth)					\$5,059,912
Contingency (20% of Capital Cost)					\$1,011,982
Direct Construction Cost					\$6,071,895
Engineering (15% of Direct Construction Cost)					\$910,784
Energy Cost Sub-Total (Present Worth)					\$1,851,738
Water Fee Sub-Total (Present Worth)					\$4,978,973
Operation & Maintenance Cost Sub-Total (Present Worth)					\$309,049
Total (rounded to the nearest \$100,000)					\$14,100,000

Notes:

1. Interest rate per interest period (i): 2.5%
2. Number of compounding periods (n):
17 (2004 to 2020)
20 (2020 to 2040)
37 (2004 to 2040)
3. Horsepower requirements are based on required horsepower to deliver the design flow.
4. Pump system and pump station cost estimated as \$2,000 per horsepower. Pump cost estimated as \$400 per horsepower.
5. Assumes 5 percent of the pump purchase cost for annual maintenance on pumps
6. Energy usage by each pump for each alternative at each Design Scenario was estimated as shown in Table 8.9.
7. Connection Fee is an approximation based on the connection fee for an 8 inch tap to the Albuquerque Municipal Water System.
8. Water quantities for fee purposes are the average yearly amount of water used for that period of time.
9. Storage costs based on the following:

Capacity(MG)	Cost per 1000 gal.
0.25	\$800
0.5	\$620
0.75	\$460
1	\$430
2	\$350
4	\$260
10. Costs shown do not indicate easement or right-of-way acquisition.

Table 8.3

Tohajiilee Water Supply Alternatives Evaluation
Feasibility Level Cost Estimate
Albuquerque Pipeline - Existing Utility Corridor Alignment - Design Scenario # 2
 (see Plate # 2)

Item Description	Qty	Units	Unit Cost	Cost	PW Cost
<u>Potable Water Pipeline from Albuquerque</u>					
1. Pipeline (12-inch)	91,250	LF			
- Rock Excavation (10%)	9,125	LF	\$73	\$666,125	\$666,125
- Normal Excavation (90%)	82,125	LF	\$48	\$3,942,000	\$3,942,000
2. Booster Pump Stations	3				
- Pump Station and Pumps	168	HP	\$2,000	\$336,000	\$336,000
- Annual Energy Cost (2004 - 2020)	1	LS	\$66,857	\$66,857	\$916,759
- Annual Operation/Maintenance	1	LS	\$16,800	\$16,800	\$230,365
- Replacement Pumps (2040 capacity)	273	HP	\$400	\$109,200	\$71,766
- Annual Energy Cost (2020 to 2040)	1	LS	\$105,331	\$105,331	\$1,079,129
- Annual Operation/Maintenance	1	LS	\$16,800	\$16,800	\$172,118
3. Connection Fee	1	LS	\$250,000	\$250,000	\$250,000
4. Water Fees (2004 - 2020)	105,120	1000 Gal.	\$1.30	\$136,656	\$1,873,854
Water Fees (2020 - 2040)	218,124	1000 Gal.	\$1.30	\$283,561	\$2,905,119
<u>Tohajiilee Water System Improvements</u>					
5. Additional Water Storage					
- 2020 Storage	907	1000 Gal.	\$460	\$417,312	\$274,255
- 2040 Storage	576	1000 Gal.	\$620	\$357,120	\$143,229
Capital Cost Sub-Total (Present Worth)					\$5,433,375
Contingency (20% of Capital Cost)					\$1,086,675
Direct Construction Cost					\$6,520,050
Engineering (15% of Direct Construction Cost)					\$978,008
Energy Cost Sub-Total (Present Worth)					\$1,995,888
Water Fee Sub-Total (Present Worth)					\$5,028,973
Operation & Maintenance Cost Sub-Total (Present Worth)					\$402,483
Total (rounded to the nearest \$100,000)					\$14,900,000

Notes:

- Interest rate per interest period (i): 2.5%
- Number of compounding periods (n):
 17 (2004 to 2020)
 20 (2020 to 2040)
 37 (2004 to 2040)
- Horsepower requirements are based on required horsepower to deliver the design flow.
- Pump system and pump station cost estimated as \$2,000 per horsepower. Pump cost estimated as \$400 per horsepower.
- Assumes 5 percent of the pump purchase cost for annual maintenance on pumps
- Energy usage by each pump for each alternative at each Design Scenario was estimated as shown in Table 8.9.
- Connection Fee is an approximation based on the connection fee for an 8 inch tap to the Albuquerque Municipice Water System.
- Water quantities for fee purposes are the average yearly amount of water used for that period of time.
- Storage costs based on the following:

Capacity(MG)	Cost per 1000 gal.
0.25	\$800
0.5	\$620
0.75	\$460
1	\$430
2	\$350
4	\$260
- Costs shown do not indicate easement or right-of-way acquisition.



To'Hajiilee

Canoncito Band of Navajos

P.O. Box 3398, Canoncito, New Mexico 87026
Phone (505) 836-4221 / 833-0740 ** Fax (505) 833-0731

Tony Secatero, President

Mark Begay, Vice President

LeeAnn Willie, Secretary Treas.

Lawrence R. Platero, Council Dele.

June 22, 2005

RESOLUTION: CBN-05-06-22-920:

Resolution of the Canoncito Band of Navajos (To'Hajiilee) supporting the effort of the Navajo Nation Department of Water Resources to develop projects that will help to conserve the existing water resources and meet future water supply needs of the To'Hajiilee Community:

WHEREAS;

1. The Canoncito Band of Navajos (To'Hajiilee) is duly recognized as a unit of local government pursuant to Navajo Nation Council Resolution CAP-34-98; and
2. The Canoncito Band of Navajos (To'Hajiilee) of the Navajo Nation desires a reliable water source for the growth and economic development of the community; and
3. The Navajo Nation Department of Water Resources completed a technical memorandum entitled, **To'Hajiilee Water Supply Project**, in April of 2002 which documented the existing water quality problems of To'Hajiilee's ground water supply and explored opportunities to import water from the City of Albuquerque and the Rio Grande River; and
4. In January of 2003, To'Hajiilee Chapter officials and Navajo Nation Department of Water Resource representatives met with the City of Albuquerque to explore utilizing the City of Albuquerque public water system to transport water to To'Hajiilee; and
5. In April of 2003, Navajo Nation President Joe Shirley requested assistance from the Army Corps of Engineers under Section 593 of the Water Resources Development Act of 1999 to help the water system at To'Hajiilee; and
6. In July of 2003, the Army Corps of Engineers responded to the Navajo Nation stating that assistance under Section 593 of the Water Resources Development Act of 1999 may be possible to assist in water related environmental infrastructure, resource protection and development projects; and

Page 2 Resolution: CBN-05-06-22-920:

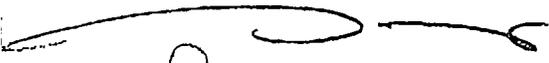
7. In February of 2004, Tetra Tech, Inc. completed a report entitled, To'Hajiilee Water Supply Alternatives Evaluation, the report was funded by the U.S. Bureau of Reclamation in cooperation with the Navajo Nation Department of Water Resources; and
8. In January of 2005, Navajo Nation Department of Water Resources Representatives were notified that the Section 593 program of the Water Resources Development Act of 1999 reached its 25 million dollar budget ceiling and it is up to the U.S. Congress to increase the budget ceiling; and
9. In February 2005, the Navajo Nation sent a letter to U.S. House of Representatives Tom Udall to request a budget ceiling increase in Section 593 of the Water Resources Development Act of 1999 and to request that money be put into Sect 203 of the Water Resources Development Act of 2000; and
10. To'Hajiilee needs technical assistance and funding for watershed restoration, existing water system improvements and future water supply projects; and
11. To'Hajiilee is aware that any effort to acquire technical assistance and funding will require a significant amount of time from the chapter and Navajo Nation representatives to coordinate meetings, plans, funding and report's.

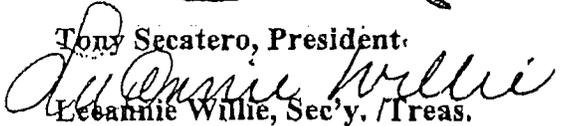
NOW, THEREFORE, BE IT RESOLVED THAT:

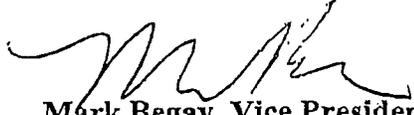
The Canoncito Band of Navajos (To'Hajiilee) hereby supports the Navajo Nation's efforts to acquire assistance under Section 593 of the Water Resources Development Act of 1999 and Section 203 of the Water Resources Development Act of 2000 to assist in planning activities, water related environmental infrastructure, resource protection and water development projects to benefit the people of To'Hajiilee.

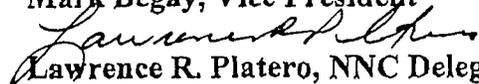
CERTIFICATION

WE HEREBY CERTIFY THAT THE FOREGOING RESOLUTION was duly discussed and considered at To'Hajiilee, Bernalillo County, New Mexico at which a quorum was present and the same was passed by a vote of 48 in favor, 0 oppose and 0 abstain this 22nd day of June 2005.


Tony Secatero, President.


Leannnie Willie, Sec'y. /Treas.


Mark Begay, Vice President


Lawrence R. Platero, NNC Delegate