



APPENDIX D

Part I

Allocation of Capital and OM&R Costs
Among Project Participants

NAVAJO - GALLUP WATER SUPPLY PROJECT
ALLOCATION OF CAPITAL AND O,M&R COSTS
AMONG PROJECT PARTICIPANTS
SAN JUAN RIVER - PNM ALTERNATIVE

James P. Merchant
Dornbusch Associates
Berkeley, CA
April 13, 2006

Executive Summary

This report is intended to describe the procedure used to allocate capital and operation, maintenance and replacement (O,M&R) costs for the preferred alignment and capacity scenario being considered for the Navajo-Gallup Water Supply Project (NGWSP). The report first explains the principles used for allocation, and then applies the principles to the 2040 version of the San Juan River PNM alternative. Costs are separated into capital costs, fixed O,M&R costs and variable O,M&R costs. Each of these cost categories is further divided into specific project reaches and then allocated to the participating parties. The allocation for the Gallup Regional System is included in the summary table but is developed separately in the detailed tables. The report assumes that construction would begin in 2008, with a construction budget of approximately \$60 million per year (2005\$). Full project completion would be January 1, 2021.

Allocation Principles

The purpose of cost allocation is to assign shares of the overall project costs to the various participants. This project will provide municipal water supplies to three groups of participants -- the Navajo Nation, the City of Gallup and the Jicarilla Apache Nation. The overriding philosophy in allocating project costs is that the three participants are equal partners in the project. Alternative allocation approaches NOT adopted include (1) assigning the same cost per gallon to all project participants regardless of their location (a "postage stamp" approach), or (2) assuming that one participant was primary and that the other two should pay only the additional costs incurred due to their participation (a "marginal cost" approach).

In allocating costs we first separated specific project components that will be dedicated for the exclusive use by any single participant, and we assigned the cost of those ***dedicated components*** to the beneficiary participant. These dedicated components typically include water storage tanks and pressurization pumps at most of the major delivery points. The bulk of the project cost, however, is for components that will benefit more than one participant. These ***joint costs*** were allocated among the project participants to derive each participant's share of the total costs.

Joint costs were allocated according to the following principles:

- ***Capital costs were allocated according to each participant's share of design capacity.*** The idea is that the size and cost of the facilities depend upon each participant's desired capacity and not on average use or use in any particular period.
- ***Fixed O,M&R costs were also allocated according to each participant's share of design capacity.*** Here again, the fixed O,M&R costs (staff size, dredging, equipment replacement, pump maintenance) are primarily a function of the design capacity, not of flows in any particular period.
- ***Variable O,M&R costs were allocated according to each participant's share of annual water deliveries.*** The variable O,M&R costs consist mainly of

energy and water treatment chemical costs. These costs vary according to the water flows in any period, so the method used to allocate these costs assigns cost shares in each year according to the projected use in that year.

The project envisions water deliveries at many locations along (in this alignment alternative) two main branches. Every delivery to one party changes the relative shares of the water flow that continues along the pipeline beyond the delivery point. Because, as described above, the relative share of design capacity and projected flow serve as the basis for the cost allocation, the cost allocation changes after every delivery point. Therefore, we have separated each pipeline branch into specific *reaches* that are defined as the intervals between each two succeeding delivery points. The diversion structure and water treatment plant on each branch is also treated as a separate segment or reach. We computed each participant's share of design capacity on each reach in order to serve as the basis for allocating capital and fixed O,M&R costs (Table A1).

Capital Costs

All of the capital construction costs were assigned to specific reaches and then split into dedicated costs and joint costs. Specific types of costs were allocated as follows: Pumping plant costs were itemized by the Bureau of Reclamation and we assigned each cost to its specific reach (Table B4). We assigned pipeline costs to each reach by accumulating the linear feet of each pipeline diameter and head class designed for each reach, then multiplying the accumulated length of each pipeline diameter and head class by its respective cost per foot (Table B5). Electric and communication facilities were distributed to the reaches per the design, while transmission lines were allocated according to the miles of new transmission line required for each reach (Table B6). Diversion structures, river pumping plants and water treatment plant costs were assigned to the initial reach of each branch (Table B7).

The various components of joint capital costs were added together for each reach and then allocated to the participants using the design capacities (Table B3). We then added the allocated joint capital costs to the dedicated capital costs for each party in each reach (Table B2).

Finally, we added unlisted items (10% of listed items), mobilization costs (5% of listed plus unlisted items) and contingency costs (25% of listed items, unlisted items and mobilization costs) to derive the total construction cost, or field cost, for each participant. We then added non-contract cost (30% of field costs) to determine total construction cost before taxes, and then added taxes (9% of total construction cost for most costs and 6% of the construction cost for the Gallup Regional System) to arrive at total construction cost with taxes. Table B1 shows this total as allocated to each participant.

Fixed OM&R Costs

The fixed O,M&R costs (we use "O,M&R" as shorthand for operation, maintenance and replacement) are comprised of the annual components that do not vary substantially with differences in flows through the system. These costs include staff costs, dredging,

equipment maintenance and annualized cost for equipment replacement. Allocation of fixed O,M&R costs was done analogously to the allocation of capital costs: the costs were assigned to the different reaches and then the O,M&R cost for each reach was apportioned among the participants according to their respective share of design capacity. About one-half of the fixed O,M&R cost was associated with the water treatment plants, so those costs were assigned entirely to the first reach of each branch, which contained the treatment plants. The remainder of the fixed O,M&R costs were pumping plant maintenance costs, and these costs were assigned to the reaches containing the pumping plants. Table D2 shows the fixed O,M&R costs for each reach, and allocates the costs to the participants.

Variable O,M&R Costs

The variable O,M&R costs are those annual operating costs that vary significantly with changes in system flows. These costs are primarily comprised of energy and water treatment chemical costs. Because these costs by definition change with changes in system flows we projected system flows over the 50-year life of the project (Table D3). The projected annual flows are based on the following assumptions:

- peak flows will be proportional to total water flows
- peak flows for Gallup and for the Jicarilla Apache Tribe would remain constant over the life of the project.
- peak flows for the Navajos would reach design capacity in the year designated in the Scenario: 2040.
- peak flows for the Navajos would remain constant following the year in which peak flows first reached design capacity
- peak flows for the Navajos would increase at a growth rate of 2.48% per year up to the year in which design capacity was first reached.

The Bureau of Reclamation provided energy and chemical costs associated with build-out project flows. We assumed that these costs would remain constant per unit of flow and then calculated the energy and chemical costs associated with each year's total flow. These total costs were allocated among the participants based on each year's respective shares of total flow. We performed these calculations for two different energy rate structures: Colorado River Storage Project (CRSP) rates (Table D6) and Navajo Tribal Utility Authority (NTUA) rates (Table D7). The applicable energy rates are shown as footnotes in Tables D6 and D7. Deliveries from Navajo Dam are subject to an estimated \$1.00 per acre-foot O&M charge by the Bureau of Reclamation. This cost is included as a variable O,M&R cost in Tables D6 and D7.

Gallup Regional System Costs

The design work and cost estimates for the Gallup Regional System were first prepared by DePauli Engineering. The Bureau of Reclamation used the DePauli design but re-estimated much of the cost. Some of the Gallup System components were included in the Bureau's cost estimate worksheets for the overall system (eg. Navajo Chapter water storage tanks), but most components were listed separately on a Gallup-specific

worksheet. We treated the components included with the other Bureau elements as part of the overall system cost allocation. We allocated the remaining items (all joint facilities) by allocating their cost to participants based on their respective shares of design capacity (Table C1).

O,M&R costs were estimated by the Bureau as a lump sum (one each for the CRSP and NTUA energy rates). We allocated this overall annual O,M&R cost to the participants based on their respective shares of design capacity (Table C2).

Water Costs

Table C3 estimates the City of Gallup's cost of purchasing 7,500 acre-feet per year of water that would be conveyed by the project. At this point Gallup has not reached an agreement with any water supplier, so the cost estimates included in these tables may change. We used the terms of a possible agreement with the Jicarilla Apache Nation as the basis for our cost estimates, but they have not yet been agreed to.

In the absence of a water rights settlement that establishes different terms the Navajo Nation would pay for water from Navajo Reservoir used for non-agricultural purposes. These payments were estimated by the Bureau of Reclamation to have a present value of \$108.45 per acre-foot. We amortized that present value over the Navajo water deliveries using the CRSP interest rate of 2.875%. This cost is shown in Table D8.

We did not include any financial cost for the water to be delivered to the Jicarilla Apache Nation, pursuant to the terms of the Jicarilla Apache Tribe Water Rights Settlement Act (P.L. 102-441, section 8(d)(1)).

Overall Summation

Table 1 summarizes the above analysis. The table addresses the capital, annual O,M&R and present value of O,M&R costs for a scenario that assumes a construction budget of \$60 million per year in 2005\$. The table combines total construction cost including taxes for the Bureau-designed system and for the Gallup Regional System, developed separately in Tables B1 and C1. We added costs for environmental mitigation, cultural resources and right-of-way acquisition that were allocated in Table B8. We then added interest during construction that was calculated in Table B9. We calculated the present value of the annual fixed plus variable O,M&R costs (discounted at 5.375%), estimated under both the CRSP and NTUA energy rates. All financial costs are expressed as of the beginning of the year in which the project is completed: 2021. Interest during construction and interest on pre-project completion water purchase fees are compiled up to January 1, 2021, and post-completion O,M&R and post-completion water purchase fees are discounted to January 1, 2021. We then show the total present value of all costs, including capital, fixed O,M&R and variable O,M&R costs. Table 1 allocates these costs to each of the participants. All costs are based on January, 2005, price levels.

Figures 1 and 2 illustrate the components of overall cost. Figure 1 shows how total project costs are split among capital cost, interest during construction, the present value

of future OM&R costs and the present value of water cost. Figure 2 shows how total project costs are allocation to the three project participants. Figures 3, 4 and 5 show how the cost allocated to each project participant are composed of capital, interest during construction, OM&R and water costs. Finally, Figure 6 shows what the levelized cost per thousand gallons (in 2005\$) would be to each project participant, assuming full self-funding.

TABLE OF TABLES

Table 1	Summary of Costs for San Juan River PNM Alternative, Scenario 1
Table A1	Allocation of Flow Capacities to Participants by Reach, 2040
Table B1	Total Capital Costs, 2040
Table B2	Allocation of Total Capital Costs by Participant, 2040
Table B3	Allocation of Total Capital Costs by Reach, 2040
Table B4	Allocation of Pumping Plant Costs by Reach, 2040
Table B5	Allocation of Pipeline Costs by Reach, 2040
Table B6	Allocation of Transmission Line Costs by Reach, 2040
Table B7	Allocation of Dams, etc. Costs by Reach, 2040
Table B8	Allocation of Environmental Mitigation, Cultural Resources and Right-of-Way Costs to Participants
Table B9	Interest During Construction
Table C1	Allocation of Gallup Regional System Capital Cost, 2040
Table C2	Allocation of Gallup Regional System O,M&R Costs, 2040
Table C3	Cost of Water to City of Gallup
Table D1	Summary of Annual O,M&R Costs by User, 2040
Table D2	Allocation of Annual Fixed O,M&R Costs by User, 2040
Table D3	Projection of Peak Flows by Reach, 2010-2070
Table D4	Projection of Peak Flows by Reach and by Participant, 2010-2070
Table D5	Percentage of Peak Flows by Reach and by Participant, 2010-2070
Table D6	Allocation of Annual Variable O,M&R Costs by User, CRSP rates, 2040
Table D7	Allocation of Annual Variable O,M&R Costs by User, NTUA rates, 2040
Table D8	Cost of Water to Navajo Nation

TABLE OF FIGURES

Figure 1	Total Project Cost by Category
Figure 2	Allocation of Total Costs to Participants
Figure 3	Breakdown of Navajo Costs, NTUA Power Rates
Figure 4	Breakdown of Gallup Costs, NTUA Power Rates
Figure 5	Breakdown of Jicarilla Costs, NTUA Power Rates
Figure 6	Cost Per Thousand Gallons

Figure 1
Navajo-Gallup Water Supply Project
Total Project Cost by Category
 Millions 2005\$, 5.375% discount rate, 50 year project life

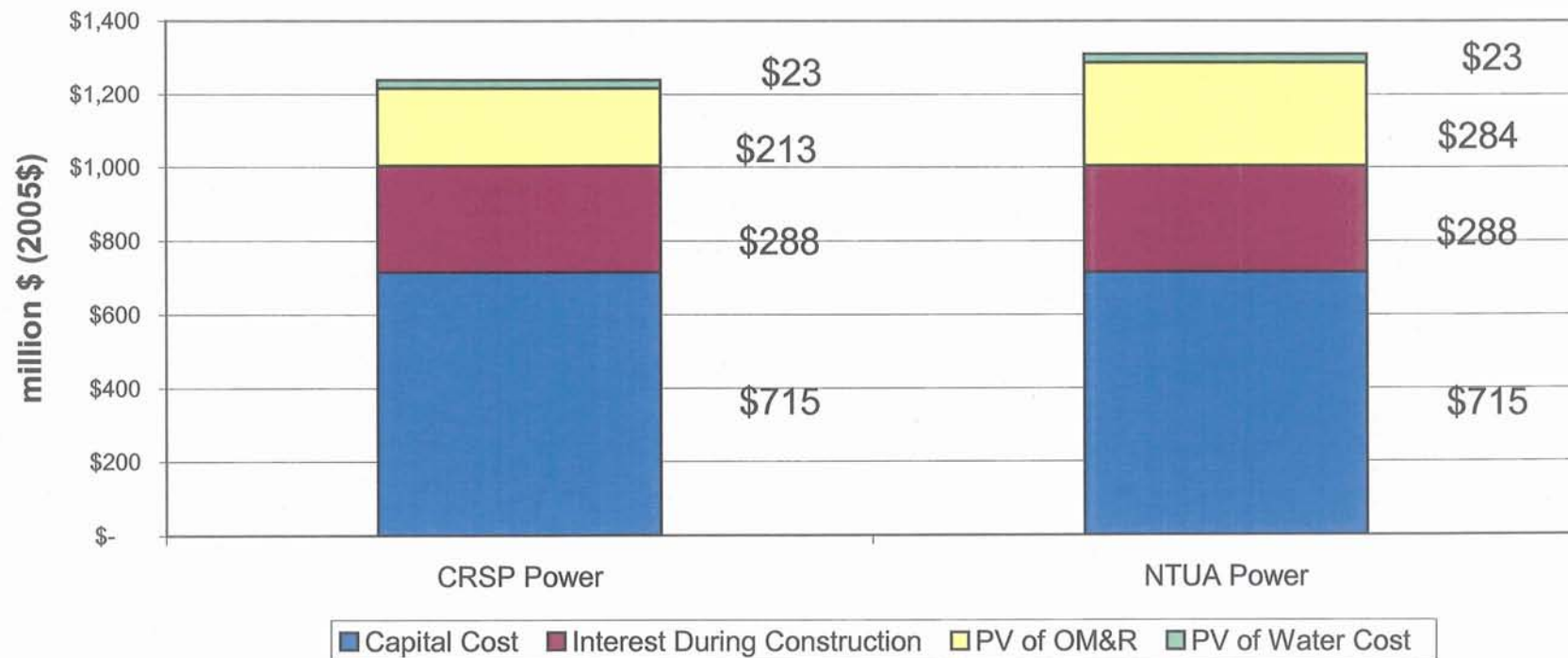


Figure 2
Navajo-Gallup Water Supply Project
Allocation of Total Costs to Participants

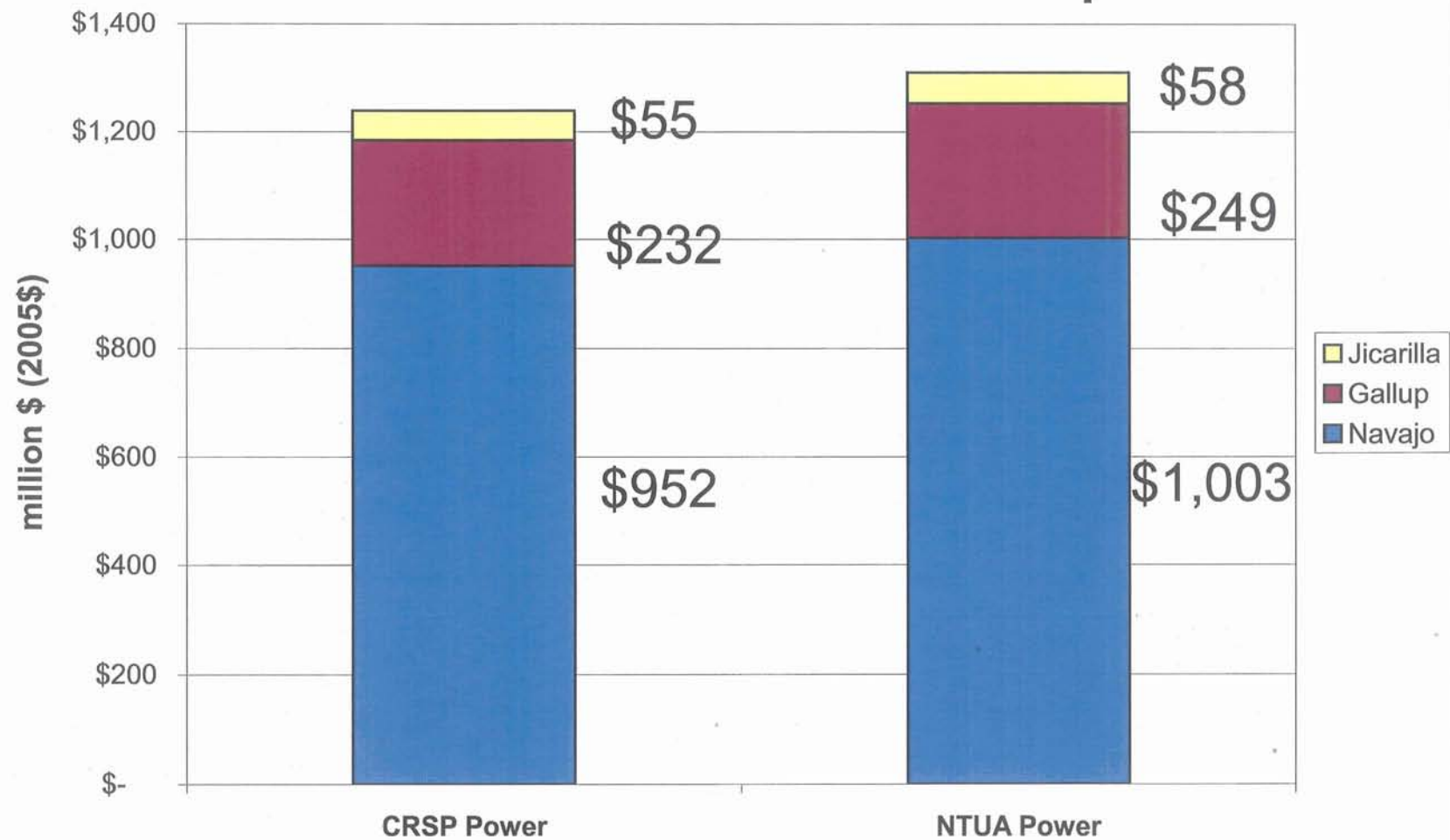


Figure 3
Navajo-Gallup Water Supply Project
NTUA Power Rates
Breakdown of Navajo Costs

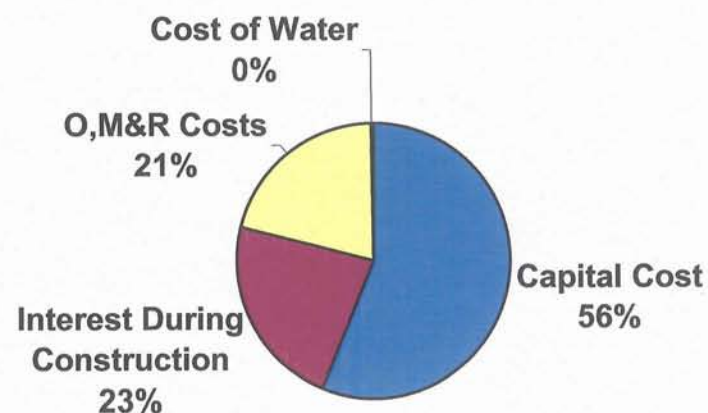


Figure 4
Navajo-Gallup Water Supply Project
NTUA Power Rates
Breakdown of Gallup Costs

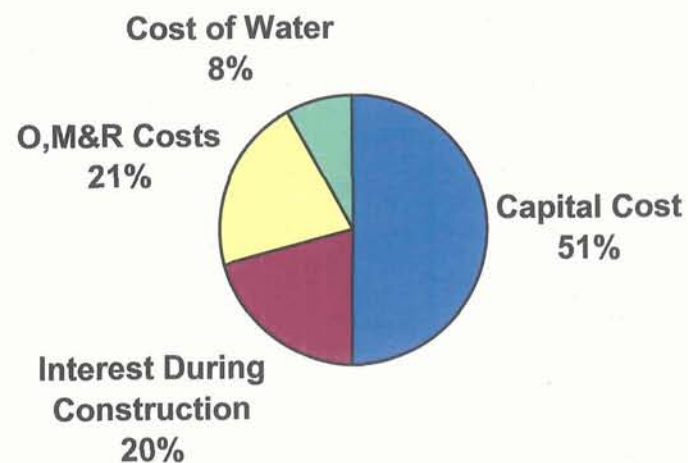


Figure 5
Navajo-Gallup Water Supply Project
NTUA Power Rates
Breakdown of Jicarilla Costs

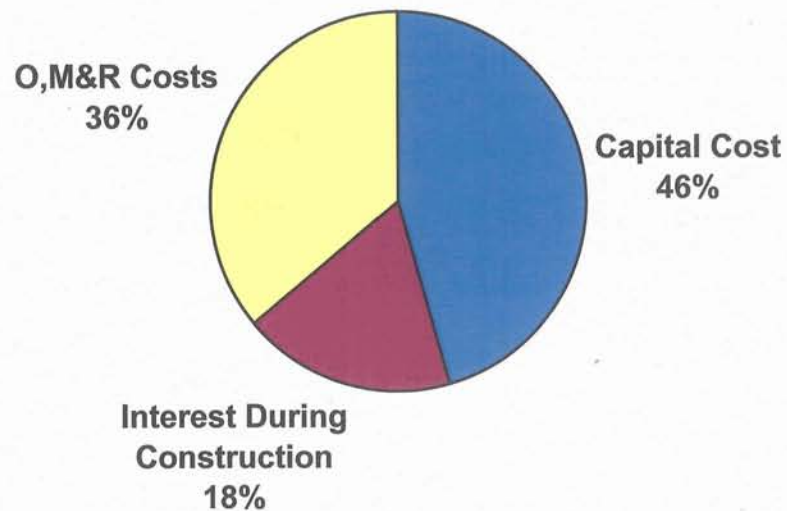
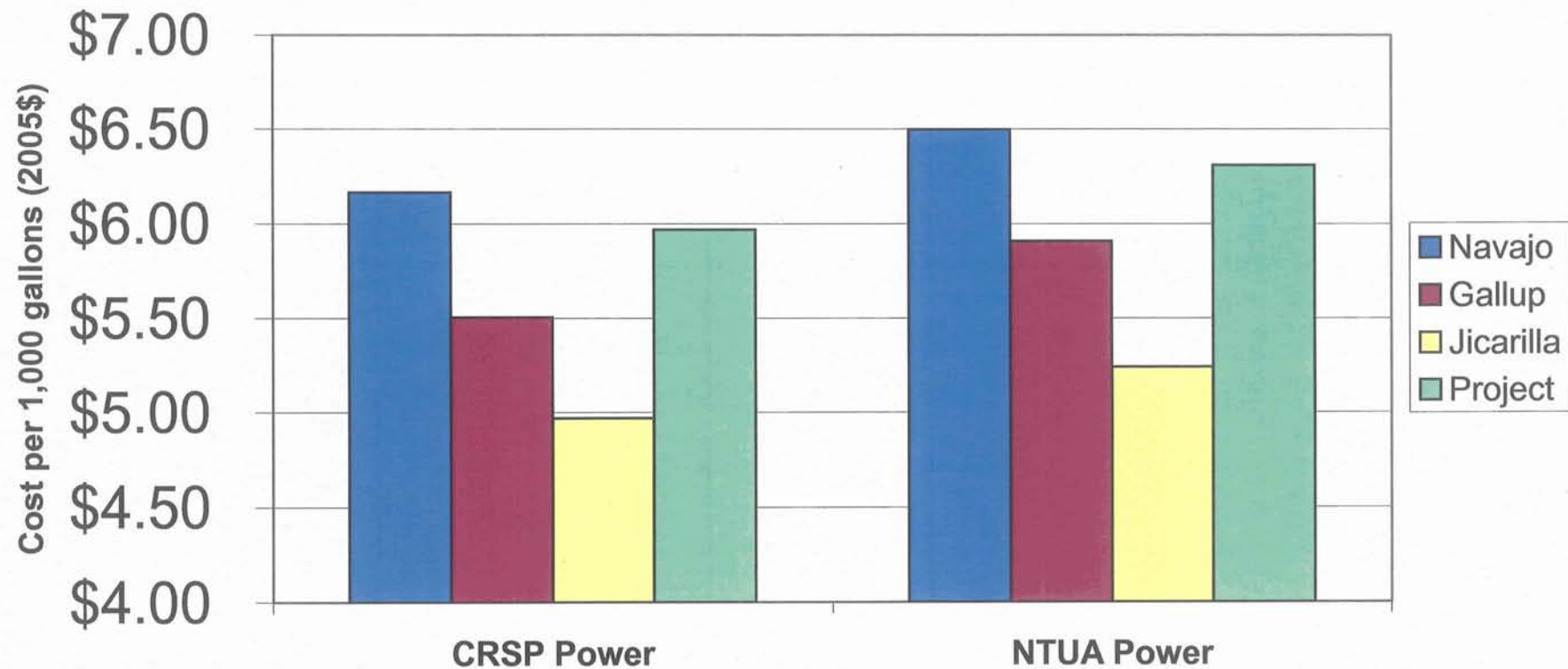


Figure 6
Navajo-Gallup Water Supply Project
Cost per Thousand Gallons
Federal Financing at 5.375%, Full Repayment



Note: these costs do not include non-Project facilities

Table 1
Navajo - Gallup Water Supply Project 2040
San Juan PNM Alternative - \$60 million/year Construction Schedule
Present Value of Total Costs (2005\$)
5.375% Discount Rate, 50 Year Project Life

Total Capital Costs By User	Navajo	Gallup	Jicarilla	Total
Allocated Construction Costs - Main System	\$530,300,000	\$96,300,000	\$25,600,000	\$652,200,000
Allocated Capital Costs - Gallup Regional	\$15,700,000	\$25,300,000	\$0	\$41,000,000
Allocated Environmental Mitigation Cost	\$3,100,000	\$700,000	\$100,000	\$3,900,000
Allocated Cultural Resources Cost	\$8,700,000	\$1,900,000	\$400,000	\$11,000,000
Allocated Right-of-Way Cost	\$5,500,000	\$1,200,000	\$300,000	\$7,000,000
Total Project Capital Cost before Interest	\$563,300,000	\$125,400,000	\$26,400,000	\$715,100,000
Allocated Interest During Construction	\$226,900,000	\$50,500,000	\$10,600,000	\$288,100,000
Total Project Capital Cost	\$790,200,000	\$175,900,000	\$37,000,000	\$1,003,100,000
Rounded Values	\$790,000,000	\$176,000,000	\$37,000,000	\$1,003,000,000

Annual O,M&R Costs By User (at Design Capacity)

CRSP Rates	Navajo	Gallup	Jicarilla	Total
Allocated O,M&R Costs - Main System	\$7,894,428	\$1,723,449	\$640,163	\$10,258,040
Allocated O,M&R Costs - Gallup Regional	\$160,000	\$259,000	\$0	\$419,000
Annual Cost of Water	\$171,051	\$1,145,612	\$0	\$1,316,663
Total Allocated O,M&R Costs	\$8,225,479	\$3,128,061	\$640,163	\$11,993,703
Rounded Values	\$8,200,000	\$3,100,000	\$600,000	\$12,000,000

NTUA Rates	Navajo	Gallup	Jicarilla	Total
Allocated O,M&R Costs - Main System	\$11,105,201	\$2,672,307	\$748,114	\$14,525,622
Allocated O,M&R Costs - Gallup Regional	\$181,000	\$292,000	\$0	\$473,000
Annual Cost of Water	\$171,051	\$1,145,612	\$0	\$1,316,663
Total Allocated O,M&R Costs	\$11,457,252	\$4,109,919	\$748,114	\$16,315,285
Rounded Values	\$11,500,000	\$4,100,000	\$700,000	\$16,300,000

Present Value of Total O,M&R Costs By User

CRSP Rates	Navajo	Gallup	Jicarilla	Total
Allocated O,M&R Costs - Main System	\$156,546,000	\$31,322,000	\$18,087,000	\$205,955,000
Allocated O,M&R Costs - Gallup Regional	\$2,767,000	\$4,459,000	\$0	\$7,226,000
Cost of Water	\$2,950,140	\$19,758,536	\$0	\$22,708,677
Total Allocated O,M&R Costs	\$162,263,140	\$55,539,536	\$18,087,000	\$235,889,677
Rounded Values	\$162,000,000	\$56,000,000	\$18,000,000	\$236,000,000

NTUA Rates	Navajo	Gallup	Jicarilla	Total
Allocated O,M&R Costs - Main System	\$206,675,000	\$47,917,000	\$20,967,000	\$275,559,000
Allocated O,M&R Costs - Gallup Regional	\$3,124,000	\$5,034,000	\$0	\$8,158,000
Cost of Water	\$2,950,140	\$19,758,536	\$0	\$22,708,677
Total Allocated O,M&R Costs	\$212,749,140	\$72,709,536	\$20,967,000	\$306,425,677
Rounded Values	\$213,000,000	\$73,000,000	\$21,000,000	\$306,000,000

Note: Present value of O,M&R costs include fixed and variable O,M&R costs incurred for partial water delivery before project completion

Present Value of Total Capital and O,M&R Costs By User

CRSP Rates				
Capital	\$790,000,000	\$176,000,000	\$37,000,000	\$1,003,000,000
O,M&R (including cost of water)	\$162,000,000	\$56,000,000	\$18,000,000	\$236,000,000
Total All Costs	\$952,000,000	\$232,000,000	\$55,000,000	\$1,239,000,000

NTUA Rates				
Capital	\$790,000,000	\$176,000,000	\$37,000,000	\$1,003,000,000
O,M&R	\$213,000,000	\$73,000,000	\$21,000,000	\$306,000,000
Total All Costs	\$1,003,000,000	\$249,000,000	\$58,000,000	\$1,309,000,000

Table A1
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Flow Capacities to Participants by Reach

			Peak	Peak	Allocation of Peak Flows By Reach						
			Pumping	Flow in	Deliveries	Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla
<i>San Juan Branch</i>			Plants	Reach	in Reach	cfs	cfs	cfs	%	%	%
Number	Start	End		cfs	cfs						
1	San Juan River	Water Treatment Plant (WTP)	River	59.18	0.00	45.71	13.47	0.00	0.7724	0.2276	0.0000
2	WTP	NAPI turnout	01	59.18	0.97	45.71	13.47	0.00	0.7724	0.2276	0.0000
3	NAPI	Shiprock Junction		58.21	6.72	44.74	13.47	0.00	0.7686	0.2314	0.0000
4	Shiprock J.	Sanostee turnout	02, 03	51.49	2.00	38.02	13.47	0.00	0.7384	0.2616	0.0000
5	Sanostee	Burnham Junction		49.49	0.27	36.02	13.47	0.00	0.7278	0.2722	0.0000
6	Burnham J.	Newcomb turnout		49.22	1.52	35.75	13.47	0.00	0.7263	0.2737	0.0000
7	Newcomb	Sheepsprings turnout	04	47.70	0.70	34.23	13.47	0.00	0.7176	0.2824	0.0000
8	Sheepsprings	Naschitti turnout	05	47.00	1.54	33.53	13.47	0.00	0.7134	0.2866	0.0000
9	Naschitti	Tohatchi turnout	06	45.46	1.99	31.99	13.47	0.00	0.7037	0.2963	0.0000
10	Tohatchi	Coyote Canyon Junction		43.47	5.06	30.00	13.47	0.00	0.6901	0.3099	0.0000
11	Coyote Canyon J.	Twin Lakes turnout	07	38.41	1.88	24.94	13.47	0.00	0.6493	0.3507	0.0000
12	Twin Lakes	Ya-ta-hey Junction	08	36.53	14.70	23.06	13.47	0.00	0.6313	0.3687	0.0000
13	Ya-ta-hey J.	Gallup Junction		21.83	13.47	8.36	13.47	0.00	0.3830	0.6170	0.0000
14	Gallup J.	Navajo Chapters		8.36	8.36	8.36	0.00	0.00	1.0000	0.0000	0.0000
					59.18						
10.1	Coyote Canyon J.	Coyote Canyon turnout	11	5.06	1.25	5.06	0.00	0.00	1.0000	0.0000	0.0000
10.2	Coyote Canyon	Standing Rock turnout	12	3.81	0.13	3.81	0.00	0.00	1.0000	0.0000	0.0000
10.3	Standing Rock	Dalton Pass turnout	13	3.68	3.68	3.68	0.00	0.00	1.0000	0.0000	0.0000
					5.06						
12.1	Ya-ta-hey J.	Rock Springs turnout	09	14.70	3.19	14.70	0.00	0.00	1.0000	0.0000	0.0000
12.2	Rock Springs	Window Rock turnout	10	11.51	11.51	11.51	0.00	0.00	1.0000	0.0000	0.0000
					14.70						
<i>Cutter Branch</i>			Pumping	Flow in	Deliveries	Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla
Number	Start	End	Plants	cfs	in Reach	cfs	cfs	cfs	%	%	%
21	NIIP Canal	WTP	Reservoir	8.34	0.00	6.19	0.00	2.15	0.7422	0.0000	0.2578
22	WTP	Huerfano turnout	01, 02, 03	8.34	0.50	6.19	0.00	2.15	0.7422	0.0000	0.2578
23	Huerfano	Nageezi turnout	04	7.84	1.05	5.69	0.00	2.15	0.7258	0.0000	0.2742
24	Nageezi	Jicarilla turnout	05	6.79	2.15	4.64	0.00	2.15	0.6834	0.0000	0.3166
25	Jicarilla	Counselor turnout	06	4.64	2.63	4.64	0.00	0.00	1.0000	0.0000	0.0000
26	Counselor	Torreon turnout		2.01	2.01	2.01	0.00	0.00	1.0000	0.0000	0.0000
					8.34						

Table B1
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Total Capital Costs - Main System
Jan-05 \$

		Navajo	Gallup	Jicarilla	Total
Allocated Capital Costs		\$264,235,766	\$47,981,089	\$12,777,157	\$324,994,013
Mobilization @	5%	\$13,211,788	\$2,399,054	\$638,858	\$16,249,701
Subtotal		\$277,447,555	\$50,380,144	\$13,416,015	\$341,243,713
Unlisted Items @	10%	\$27,744,755	\$5,038,014	\$1,341,601	\$34,124,371
Subtotal		\$305,192,310	\$55,418,158	\$14,757,616	\$375,368,084
Contingencies @	25%	\$76,298,078	\$13,854,539	\$3,689,404	\$93,842,021
Total Field Costs		\$381,490,388	\$69,272,697	\$18,447,021	\$469,210,106
Non-Contract Costs @	30%	\$114,447,116	\$20,781,809	\$5,534,106	\$140,763,032
Total Construction Costs		\$495,937,504	\$90,054,507	\$23,981,127	\$609,973,137
Taxes on Field Cost @	9%	\$34,334,135	\$6,234,543	\$1,660,232	\$42,228,910
Total with Taxes		\$530,271,639	\$96,289,049	\$25,641,359	\$652,202,047
Rounded Total		\$530,300,000	\$96,300,000	\$25,600,000	\$652,200,000

Note: The costs in this table exclude the cost for the Gallup Regional System, which are shown in Table C1. The costs also exclude the environmental mitigation, cultural resources, right-of-way acquisition and interest during construction costs, which are shown in Table 1.

Table B2
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Total Capital Costs by Participant
Jan-05 \$

San Juan Branch		Joint Costs							Dedicated Costs			Total Costs		
		Total Joint Costs	Allocation Ratios			Allocated Joint Costs			Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla
			Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla						
Reach	End													
1	Water Treatment Plant (WTP)	\$41,796,965	0.7724	0.2276	-	\$32,283,529	\$9,513,436	\$0	\$0	\$0	\$0	\$32,283,529	\$9,513,436	\$0
2	NAPI turnout	\$6,471,016	0.7724	0.2276	-	\$4,998,143	\$1,472,872	\$0	\$0	\$0	\$0	\$4,998,143	\$1,472,872	\$0
3	Shiprock Junction	\$18,501,899	0.7686	0.2314	-	\$14,220,494	\$4,281,405	\$0	\$0	\$0	\$0	\$14,220,494	\$4,281,405	\$0
4	Sanostee turnout	\$26,968,471	0.7384	0.2616	-	\$19,913,406	\$7,055,065	\$0	\$3,280,000	\$0	\$0	\$23,193,406	\$7,055,065	\$0
5	Burnham Junction	\$10,043,769	0.7278	0.2722	-	\$7,310,094	\$2,733,675	\$0	\$0	\$0	\$0	\$7,310,094	\$2,733,675	\$0
6	Newcomb turnout	\$5,178,155	0.7263	0.2737	-	\$3,761,053	\$1,417,102	\$0	\$2,520,000	\$0	\$0	\$6,281,053	\$1,417,102	\$0
7	Sheepsprings turnout	\$14,199,125	0.7176	0.2824	-	\$10,189,435	\$4,009,690	\$0	\$1,430,000	\$0	\$0	\$11,619,435	\$4,009,690	\$0
8	Naschitti turnout	\$9,909,254	0.7134	0.2866	-	\$7,069,304	\$2,839,950	\$0	\$2,670,000	\$0	\$0	\$9,739,304	\$2,839,950	\$0
9	Tohatchi turnout	\$20,974,030	0.7037	0.2963	-	\$14,759,332	\$6,214,698	\$0	\$3,280,000	\$0	\$0	\$18,039,332	\$6,214,698	\$0
10	Coyote Canyon Junction	\$5,750,137	0.6901	0.3099	-	\$3,968,348	\$1,781,788	\$0	\$0	\$0	\$0	\$3,968,348	\$1,781,788	\$0
11	Twin Lakes turnout	\$5,968,759	0.6493	0.3507	-	\$3,875,575	\$2,093,184	\$0	\$2,930,000	\$0	\$0	\$6,805,575	\$2,093,184	\$0
12	Ya-ta-hey Junction	\$7,869,756	0.6313	0.3687	-	\$4,967,878	\$2,901,878	\$0	\$0	\$0	\$0	\$4,967,878	\$2,901,878	\$0
13	Gallup Junction	\$2,700,544	0.3830	0.6170	-	\$1,034,198	\$1,666,346	\$0	\$0	\$0	\$0	\$1,034,198	\$1,666,346	\$0
14	Navajo Chapters	\$507,825	1.0000	-	-	\$507,825	\$0	\$0	\$13,400,000	\$0	\$0	\$13,907,825	\$0	\$0
10.1	Coyote Canyon turnout	\$4,434,735	1.0000	-	-	\$4,434,735	\$0	\$0	\$2,250,000	\$0	\$0	\$6,684,735	\$0	\$0
10.2	Standing Rock turnout	\$7,574,548	1.0000	-	-	\$7,574,548	\$0	\$0	\$460,000	\$0	\$0	\$8,034,548	\$0	\$0
10.3	Dalton Pass turnout	\$2,580,221	1.0000	-	-	\$2,580,221	\$0	\$0	\$4,550,000	\$0	\$0	\$7,130,221	\$0	\$0
12.1	Rock Springs turnout	\$4,627,368	1.0000	-	-	\$4,627,368	\$0	\$0	\$4,680,000	\$0	\$0	\$9,307,368	\$0	\$0
12.2	Window Rock turnout	\$8,040,436	1.0000	-	-	\$8,040,436	\$0	\$0	\$15,100,000	\$0	\$0	\$23,140,436	\$0	\$0
Cutter Branch														
21	WTP	\$8,157,420	0.7422	-	0.2578	\$6,054,488	\$0	\$2,102,932	\$0	\$0	\$0	\$6,054,488	\$0	\$2,102,932
22	Huerfano turnout	\$22,690,037	0.7422	-	0.2578	\$16,840,687	\$0	\$5,849,350	\$1,100,000	\$0	\$0	\$17,940,687	\$0	\$5,849,350
23	Nageezi turnout	\$6,206,378	0.7258	-	0.2742	\$4,504,374	\$0	\$1,702,004	\$1,840,000	\$0	\$0	\$6,344,374	\$0	\$1,702,004
24	Jicarilla turnout	\$9,862,462	0.6834	-	0.3166	\$6,739,591	\$0	\$3,122,871	\$0	\$0	\$0	\$6,739,591	\$0	\$3,122,871
25	Counselor turnout	\$5,215,426	1.0000	-	-	\$5,215,426	\$0	\$0	\$3,200,000	\$0	\$0	\$8,415,426	\$0	\$0
26	Torreón turnout	\$2,895,276	1.0000	-	-	\$2,895,276	\$0	\$0	\$3,180,000	\$0	\$0	\$6,075,276	\$0	\$0
Total		\$259,124,013				\$198,365,766	\$47,981,089	\$12,777,157	\$65,870,000	\$0	\$0	\$264,235,766	\$47,981,089	\$12,777,157
Grand Total													\$324,994,013	

This table allocates the capital costs shown in Table B3 using the allocation percentages developed in Table A1.

Table B3
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Total Capital Costs by Reach
Jan-05 \$

<i>San Juan Branch</i>		<i>Joint Costs</i>					<i>Dedicated Costs</i>		
		Diversion Str.	Tanks &			Total	Navajo	Gallup	Jicarilla
		& Water Treatment	Pipeline	Pumping Plants	Transm. Lines				
Reach	End								
1	Water Treatment Plant (WTP)	\$40,240,555	\$0	\$1,300,000	\$256,410	\$41,796,965	\$0	\$0	\$0
2	NAPI turnout	\$0	\$2,062,306	\$4,230,000	\$178,710	\$6,471,016	\$0	\$0	\$0
3	Shiprock Junction	\$0	\$18,271,899	\$230,000	\$0	\$18,501,899	\$0	\$0	\$0
4	Sanostee turnout	\$0	\$20,349,486	\$6,160,000	\$458,985	\$26,968,471	\$3,280,000	\$0	\$0
5	Burnham Junction	\$0	\$10,043,769	\$0	\$0	\$10,043,769	\$0	\$0	\$0
6	Newcomb turnout	\$0	\$3,858,141	\$0	\$1,320,014	\$5,178,155	\$2,520,000	\$0	\$0
7	Sheepsprings turnout	\$0	\$10,733,526	\$2,480,000	\$985,599	\$14,199,125	\$1,430,000	\$0	\$0
8	Naschitti turnout	\$0	\$5,252,164	\$2,230,000	\$2,427,090	\$9,909,254	\$2,670,000	\$0	\$0
9	Tohatchi turnout	\$0	\$16,986,678	\$2,930,000	\$1,057,352	\$20,974,030	\$3,280,000	\$0	\$0
10	Coyote Canyon Junction	\$0	\$5,379,019	\$0	\$371,118	\$5,750,137	\$0	\$0	\$0
11	Twin Lakes turnout	\$0	\$2,516,748	\$2,430,000	\$1,022,011	\$5,968,759	\$2,930,000	\$0	\$0
12	Ya-ta-hey Junction	\$0	\$5,011,046	\$2,680,000	\$178,710	\$7,869,756	\$0	\$0	\$0
13	Gallup Junction	\$0	\$2,383,979	\$215,000	\$101,565	\$2,700,544	\$0	\$0	\$0
14	Navajo Chapters	\$0	\$0	\$0	\$507,825	\$507,825	\$13,400,000	\$0	\$0
10.1	Coyote Canyon turnout	\$0	\$3,624,460	\$530,000	\$280,275	\$4,434,735	\$2,250,000	\$0	\$0
10.2	Standing Rock turnout	\$0	\$6,559,273	\$735,000	\$280,275	\$7,574,548	\$460,000	\$0	\$0
10.3	Dalton Pass turnout	\$0	\$1,719,946	\$580,000	\$280,275	\$2,580,221	\$4,550,000	\$0	\$0
12.1	Rock Springs turnout	\$0	\$3,277,093	\$1,070,000	\$280,275	\$4,627,368	\$4,680,000	\$0	\$0
12.2	Window Rock turnout	\$0	\$5,646,502	\$1,080,000	\$1,313,934	\$8,040,436	\$15,100,000	\$0	\$0
<i>Cutter Branch</i>									
Reach	End								
21	WTP	\$8,079,720	\$0	\$0	\$77,700	\$8,157,420	\$0	\$0	\$0
22	Huerfano turnout	\$0	\$13,226,330	\$2,650,000	\$6,813,707	\$22,690,037	\$1,100,000	\$0	\$0
23	Nageezi turnout	\$0	\$5,196,103	\$730,000	\$280,275	\$6,206,378	\$1,840,000	\$0	\$0
24	Jicarilla turnout	\$0	\$6,329,402	\$1,020,000	\$2,513,060	\$9,862,462	\$0	\$0	\$0
25	Counselor turnout	\$0	\$3,690,497	\$850,000	\$674,930	\$5,215,426	\$3,200,000	\$0	\$0
26	Torreón turnout	\$0	\$2,793,711	\$0	\$101,565	\$2,895,276	\$3,180,000	\$0	\$0
Total		\$48,320,275	\$154,912,077	\$34,130,000	\$21,761,661	\$259,124,013	\$65,870,000	\$0	\$0

This table summarizes Joint and Dedicated Costs detailed in Tables B4, B5, B6 and B7.

Table B4
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Pumping Plant and Tank Costs by Reach
Jan-05 \$

					<i>Joint Costs</i>					<i>Dedicated Costs</i>								
					Pipeline Pumping Plants	Forebay Tanks	Air Chambers	Water Regulating Tanks	Total	Storage Tanks			Service Area Pumping Plants			Total		
<i>San Juan Branch</i>					Reach	End	No. WTP	No. Turnouts	No. Pump P.	Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla	Navajo	Gallup	Jicarilla
1	Water Treatment Plant (WTP)		1	0	0					\$1,300,000						\$0	\$0	\$0
2	NAPI turnout		0	0	1					\$4,000,000	\$80,000	\$150,000				\$0	\$0	\$0
3	Shiprock Junction		0	0	0						\$0	\$0	\$230,000			\$0	\$0	\$0
4	Sanostee turnout		0	1	2					\$5,700,000	\$160,000	\$300,000				\$3,280,000	\$0	\$0
5	Burnham Junction		0	0	0						\$0	\$0				\$0	\$0	\$0
6	Newcomb turnout		0	1	0						\$0	\$0				\$0	\$0	\$0
7	Sheepsprings turnout		0	1	1					\$2,250,000	\$80,000	\$150,000				\$2,520,000	\$0	\$0
8	Naschitti turnout		0	1	1					\$2,000,000	\$80,000	\$150,000				\$1,430,000	\$0	\$0
9	Tohatchi turnout		0	1	1					\$2,230,000						\$2,670,000	\$0	\$0
10	Coyote Canyon Junction		0	0	0					\$2,930,000	\$80,000	\$150,000				\$3,280,000	\$0	\$0
11	Twin Lakes turnout		0	1	1					\$0	\$0	\$0				\$0	\$0	\$0
12	Ya-ta-hey Junction		0	0	1					\$2,700,000	\$80,000	\$150,000				\$0	\$0	\$0
13	Gallup Junction		0	1	0					\$0	\$0	\$0	\$215,000			\$0	\$0	\$0
14	Navajo Chapters		0	5	0						\$0	\$0				\$0	\$0	\$0
10.1	Coyote Canyon turnout		0	1	1					\$300,000	\$80,000	\$150,000				\$2,250,000	\$0	\$0
10.2	Standing Rock turnout		0	1	1					\$310,000	\$80,000	\$150,000	\$195,000			\$460,000	\$0	\$0
10.3	Dalton Pass turnout		0	1	1					\$350,000	\$80,000	\$150,000				\$4,550,000	\$0	\$0
12.1	Rock Springs turnout		0	1	1					\$840,000	\$80,000	\$150,000				\$4,680,000	\$0	\$0
12.2	Window Rock turnout		0	1	1					\$650,000	\$80,000	\$150,000	\$200,000			\$15,100,000	\$0	\$0
<i>Cutter Branch</i>					Reach	End												
21	WTP		1	0	0						\$0	\$0				\$0	\$0	\$0
22	Huerfano turnout		0	1	3					\$1,960,000	\$240,000	\$450,000				\$1,100,000	\$0	\$0
23	Nageezi turnout		0	1	1					\$500,000	\$80,000	\$150,000				\$1,840,000	\$0	\$0
24	Jicarilla turnout		0	0	1					\$600,000	\$80,000	\$150,000	\$190,000			\$0	\$0	\$0
25	Counselor turnout		0	1	1					\$430,000	\$80,000	\$150,000	\$190,000			\$3,200,000	\$0	\$0
26	Torreón turnout		0	1	0					\$0	\$0	\$0				\$3,180,000	\$0	\$0
Total					2	21	19	Total		\$28,540,000	\$1,520,000	\$2,850,000	\$1,220,000			\$65,870,000	\$0	\$0
										\$62,140,000	\$0	\$0	\$3,730,000	\$0	\$0			

Cost per Unit

Forebay Tanks \$80,000
Air Chambers \$150,000

Table B5
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Pipeline Costs by Reach
Jan-05 \$

<i>San Juan Branch</i>				<i>Joint Costs</i>					
				Total Excavation \$	Soil Cement Embedment \$	Backfill \$	Butterfly Valves \$	Pipeline \$	Total
Reach	End	cubic yards	cubic yards	cubic yards					
1	Water Treatment Plant (WTP)				\$0	\$0	\$0	\$0	\$0
2	NAPI turnout	22,720	4,385	13,991	\$81,906	\$263,087	\$34,978	\$43,000	\$1,639,334
3	Shiprock Junction	258,690	49,923	159,300	\$932,583	\$2,995,359	\$398,251	\$387,000	\$13,558,706
4	Sanostee turnout	267,961	51,713	165,008	\$966,006	\$3,102,760	\$412,521	\$408,500	\$15,459,699
5	Burnham Junction	145,024	27,987	89,305	\$522,815	\$1,679,249	\$223,261	\$215,000	\$7,403,444
6	Newcomb turnout	54,217	10,463	33,387	\$195,454	\$627,775	\$83,468	\$86,000	\$2,865,445
7	Sheepsprings turnout	135,808	26,168	85,199	\$489,591	\$1,570,096	\$212,997	\$215,000	\$8,245,842
8	Naschitti turnout	70,620	15,148	42,763	\$254,587	\$908,866	\$106,908	\$129,000	\$3,852,803
9	Tohatchi turnout	241,956	45,020	154,240	\$872,257	\$2,701,178	\$385,601	\$354,000	\$12,673,642
10	Coyote Canyon Junction	80,687	15,480	51,629	\$290,878	\$928,779	\$129,073	\$112,000	\$3,918,288
11	Twin Lakes turnout	35,803	6,815	23,397	\$129,071	\$408,919	\$58,492	\$48,000	\$1,872,266
12	Ya-ta-hey Junction	71,559	13,621	46,762	\$257,972	\$817,235	\$116,906	\$96,000	\$3,722,933
13	Gallup Junction	37,248	6,904	25,973	\$134,280	\$414,218	\$64,933	\$30,000	\$1,740,548
14	Navajo Chapters				\$0	\$0	\$0	\$0	\$0
10.1	Coyote Canyon turnout	52,013	9,309	37,829	\$187,508	\$558,549	\$94,572	\$37,800	\$2,746,032
10.2	Standing Rock turnout	108,432	19,695	80,284	\$390,900	\$1,181,685	\$200,711	\$86,400	\$4,699,578
10.3	Dalton Pass turnout	28,983	4,295	22,932	\$104,484	\$257,679	\$57,331	\$17,600	\$1,282,851
12.1	Rock Springs turnout	53,238	9,868	37,124	\$191,924	\$592,089	\$92,810	\$45,000	\$2,355,270
12.2	Window Rock turnout	95,688	17,455	68,047	\$344,957	\$1,047,303	\$170,117	\$77,400	\$4,006,724
		1,760,647	334,247	1,137,172					
<i>Cutter Branch</i>									
Reach	End								
21	WTP				\$0	\$0	\$0	\$0	\$0
22	Huerfano turnout	192,709	34,512	137,970	\$694,720	\$2,070,709	\$344,925	\$130,400	\$9,985,575
23	Nageezi turnout	88,749	15,884	63,162	\$319,942	\$953,051	\$157,905	\$64,800	\$3,700,405
24	Jicarilla turnout	110,898	18,269	80,964	\$399,790	\$1,096,119	\$202,411	\$83,800	\$4,547,282
25	Counselor turnout	66,894	9,912	51,239	\$241,154	\$594,737	\$128,097	\$39,600	\$2,686,908
26	Torreon turnout	55,295	7,754	44,158	\$199,340	\$465,220	\$110,396	\$37,400	\$1,981,356
	Total	2,275,192	420,578	1,514,665	\$8,202,119	\$25,234,662	\$3,786,663	\$2,743,700	\$114,944,932
									\$154,912,077

Cost per Unit

Rock Excavation, per cy	\$10.00	Total Excavation, cy	2,275,192
Common Excavation, per cy	\$3.00	Rock Excavation, cy	196,649
Average Excavation cost, per cy	\$3.61	Rock/Total, ratio	0.0864
Backfill, per cy	\$2.50		

Table B6

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Allocation of Transmission Line Costs by Reach

Jan-05 \$

<i>San Juan Branch</i>						<i>Joint Costs</i>							Total
						Trans. Ln	Elect. Equip	SCADA	Comm.	Security	Pwr Tap	Other	
Reach	End	No. WTP	No. Turnouts	No. Pump P.	Miles Trans Ln								
1	Water Treatment Plant (WTP)	1	0	1		\$0	\$155,400	\$5,550	\$22,200	\$6,660	\$66,600		\$256,410
2	NAPI turnout	0	0	1		\$0	\$77,700	\$5,550	\$22,200	\$6,660	\$66,600		\$178,710
3	Shiprock Junction	0	0	0		\$0	\$0	\$0	\$0	\$0	\$0		\$0
4	Sanostee turnout	0	1	2		\$0	\$162,615	\$16,650	\$66,600	\$13,320	\$199,800		\$458,985
5	Burnham Junction	0	0	0		\$0	\$0	\$0	\$0	\$0	\$0		\$0
6	Newcomb turnout	0	1	0	10.11	\$1,218,449	\$7,215	\$5,550	\$22,200	\$0	\$66,600		\$1,320,014
7	Sheepsprings turnout	0	1	1	5.85	\$705,324	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$985,599
8	Naschitti turnout	0	1	1	17.82	\$2,146,815	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$2,427,090
9	Tohatchi turnout	0	1	1	6.45	\$777,077	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$1,057,352
10	Coyote Canyon Junction	0	0	0	3.08	\$371,118	\$0	\$0	\$0	\$0	\$0		\$371,118
11	Twin Lakes turnout	0	1	1	6.16	\$741,736	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$1,022,011
12	Ya-ta-hey Junction	0	0	1		\$0	\$77,700	\$5,550	\$22,200	\$6,660	\$66,600		\$178,710
13	Gallup Junction	0	1	0		\$0	\$7,215	\$5,550	\$22,200	\$0	\$66,600		\$101,565
14	Navajo Chapters	0	5	0		\$0	\$36,075	\$27,750	\$111,000	\$0	\$333,000		\$507,825
10.1	Coyote Canyon turnout	0	1	1		\$0	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$280,275
10.2	Standing Rock turnout	0	1	1		\$0	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$280,275
10.3	Dalton Pass turnout	0	1	1		\$0	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$280,275
12.1	Rock Springs turnout	0	1	1		\$0	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$280,275
12.2	Window Rock turnout	0	1	1	5.82	\$700,659	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200	\$333,000	\$1,313,934
<i>Cutter Branch</i>													
Reach	End	No. WTP	No. Turnouts	No. Pump P.	Miles Trans Ln								
21	WTP	1	0	0		\$0	\$77,700	\$0	\$0	\$0	\$0		\$77,700
22	Huerfano turnout	0	1	3	42.05	\$5,066,012	\$240,315	\$22,200	\$88,800	\$19,980	\$266,400	\$1,110,000	\$6,813,707
23	Nageezi turnout	0	1	1		\$0	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$280,275
24	Jicarilla turnout	0	0	1	19.38	\$2,334,350	\$77,700	\$5,550	\$22,200	\$6,660	\$66,600		\$2,513,060
25	Counselor turnout	0	1	1	3.28	\$394,655	\$84,915	\$11,100	\$44,400	\$6,660	\$133,200		\$674,930
26	Torreon turnout	0	1	0	0.00	\$0	\$7,215	\$5,550	\$22,200	\$0	\$66,600		\$101,565
Total		2	21	20	120.00	\$14,456,196	\$1,860,915	\$227,550	\$910,200	\$133,200	\$2,730,600	\$1,443,000	\$21,761,661

Cost per unit

Transmission line per mile	\$120,468
Electrical equipment per pumping plant	\$77,700
Electrical equipment per WTP	\$77,700
Electrical equipment per turnout	\$7,215
SCADA equipment per pp and turnout	\$5,550
SCADA system for Ft. Defiance	\$333,000
Comm. equipment per pp and turnout	\$22,200
Security system per pp	\$6,660
Substation near Huerfano	\$1,110,000
Power tap poles per pp and turnout	\$66,600

Table B7

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Allocation of Dam, Diversion Structure, Wells and Water Treatment Costs by Reach

Jan-05 \$

		<i>Joint Costs</i>			
		Dams	Diversion Structures	Wells	Water Treatment Plants
San Juan Branch					
Reach	End				Total
1	Water Treatment Plant (WTP)		\$1,778,494		\$38,462,061
2	NAPI turnout				\$40,240,555
3	Shiprock Junction				\$0
4	Sanostee turnout				\$0
5	Burnham Junction				\$0
6	Newcomb turnout				\$0
7	Sheepsprings turnout				\$0
8	Naschitti turnout				\$0
9	Tohatchi turnout				\$0
10	Coyote Canyon Junction				\$0
11	Twin Lakes turnout				\$0
12	Ya-ta-hey Junction				\$0
13	Gallup Junction				\$0
14	Navajo Chapters				\$0
10.1	Coyote Canyon turnout				\$0
10.2	Standing Rock turnout				\$0
10.3	Dalton Pass turnout				\$0
12.1	Rock Springs turnout				\$0
12.2	Window Rock turnout				\$0
Cutter Branch					
Reach	End				
21	WTP				\$8,079,720
22	Huerfano turnout				\$8,079,720
23	Nageezi turnout				\$0
24	Jicarilla turnout				\$0
25	Counselor turnout				\$0
26	Torreón turnout				\$0
Total		\$0	\$1,778,494	\$0	\$46,541,781
					\$48,320,275

Table B8**Navajo - Gallup Water Supply Project****San Juan River PNM Alternative - 2020****Allocation of Environmental Mitigation, Cultural Resources and Right-of-Way Costs****Jan-05 \$**

	Main Navajo-Gallup Pipeline Project				Gallup Regional Water Supply System				Total
	Navajo	Gallup	Jicarilla	Total	Navajo	Gallup	Jicarilla	Total	
Total Field Costs	\$381,500,000	\$69,300,000	\$18,400,000	\$469,200,000	\$11,600,000	\$18,600,000	\$0	\$30,200,000	\$499,400,000
% Distribution of Field Costs	76.39%	13.88%	3.68%	93.95%	2.32%	3.72%	0.00%	6.05%	100.00%
Environmental Mitigation Costs	\$3,055,667	\$555,066	\$147,377	\$3,758,110	\$92,911	\$148,979	\$0	\$241,890	\$4,000,000
Cultural Resources Costs	\$8,403,084	\$1,526,432	\$405,286	\$10,334,802	\$255,507	\$409,692	\$0	\$665,198	\$11,000,000
Right-of-Way Costs	\$5,347,417	\$971,366	\$257,909	\$6,576,692	\$162,595	\$260,713	\$0	\$423,308	\$7,000,000
Total	\$16,806,167	\$3,052,863	\$810,573	\$20,669,604	\$511,013	\$819,383	\$0	\$1,330,396	\$22,000,000
Total (rounded)	\$16,810,000	\$3,050,000	\$810,000	\$20,670,000	\$510,000	\$820,000	\$0	\$1,330,000	\$22,000,000

Notes: Environmental mitigation costs estimated at \$4,000,000 (Jan. 05 \$) and allocated between systems and among users by share of field costs.

Cultural resources costs estimated at \$11,000,000 (Jan. 05 \$) and allocated between systems and among users by share of field costs.

Right-of-way costs consist of land purchased from private parties for the water treatment plants, cost of relocating Navajo families who live in the pipeline route, and administration costs, totalling \$7,000,000 (Jan. 05 \$). These costs are allocated between systems and among users by share of field costs. It is assumed that both the Navajo Nation and the City of Gallup will contribute any other land needed for their respective systems.

Environmental mitigation costs, cultural resource costs and right-of-way costs include allowances for contingencies, non-contract costs and taxes.

Table B9
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Interest During Construction
5.375% Discount Rate
Jan-05 \$

CONSTRUCTION SCHEDULE															
Costs in millions															
<i>Scenario 1 - \$60 million/year Schedule</i>	<i>Year</i>														
Construction phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
NGWSP Project	\$3.92	\$14.03	0.28												\$18.23
Cutter Lateral	\$7.89	\$4.04	\$38.84	\$32.58	\$11.92										\$95.27
Twin Lakes/ Window Rock	\$0.86	\$0.23				\$32.12	\$10.63								\$43.84
Cutter Power	\$1.37	\$0.89	\$2.73	\$8.00	\$8.00										\$20.99
San Juan Power	\$0.82	\$1.62	\$0.01				\$4.50	\$15.73							\$22.68
Gallup Regional System	\$2.56	\$3.33	\$1.96		\$32.62	\$27.90									\$68.37
San Juan Lateral		\$8.43	\$15.53	\$12.16						\$35.00	\$60.00	\$60.00	\$59.94	\$50.00	\$301.06
San Juan Pumping Plant		\$3.89	\$1.27				\$19.67	\$23.00							\$47.83
San Juan Water Treatment Plant	\$5.95	\$2.76					\$25.00	\$22.04	\$25.00						\$80.75
Cutter Water Treatment Plant	\$1.24	\$0.51		\$7.00	\$7.46										\$16.21
TOTAL Allocated Spending	\$24.61	\$39.73	\$60.62	\$59.74	\$60.00	\$60.02	\$59.80	\$60.77	\$60.00	\$60.00	\$60.00	\$59.94	\$50.00	\$0.00	\$715.23
Percent Distribution	3.44%	5.55%	8.48%	8.35%	8.39%	8.39%	8.36%	8.50%	8.39%	8.39%	8.39%	8.38%	6.99%	0.00%	100.00%
Overall Spending	\$24.61	\$39.72	\$60.61	\$59.73	\$59.99	\$60.01	\$59.79	\$60.76	\$59.99	\$59.99	\$59.99	\$59.93	\$49.99	\$0.00	\$715.10
Interest During Construction to January 1 of year 14	\$22.74	\$32.81	\$44.41	\$38.49	\$33.63	\$28.86	\$24.24	\$20.27	\$15.94	\$12.06	\$8.39	\$4.90	\$1.33	\$0.00	\$288.06

Note: The construction schedule assumes that annual appropriations will be indexed to keep in step with construction cost trends.

Table C1
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Gallup Regional System Capital Costs
Jan-05 \$

Category	Total Cost	Joint Cost	Allocation Factors		Allocated Joint Costs		Total Costs	
			Gallup	Navajo	Gallup	Navajo	Gallup	Navajo
Excavation, common	\$406,800	\$406,800	0.6170	0.3830	\$251,012	\$155,788	\$251,012	\$155,788
Excavation, rock	\$240,000	\$240,000	0.6170	0.3830	\$148,090	\$91,910	\$148,090	\$91,910
Backfill	\$306,750	\$306,750	0.6170	0.3830	\$189,277	\$117,473	\$189,277	\$117,473
Soil Cement Embedment	\$1,398,000	\$1,398,000	0.6170	0.3830	\$862,623	\$535,377	\$862,623	\$535,377
Pipeline	\$6,891,812	\$6,891,812	0.6170	0.3830	\$4,252,529	\$2,639,283	\$4,252,529	\$2,639,283
Crossings and borings	\$1,000,000	\$1,000,000	0.6170	0.3830	\$617,041	\$382,959	\$617,041	\$382,959
Water Storage Tanks	\$8,650,000	\$8,650,000	0.6170	0.3830	\$5,337,403	\$3,312,597	\$5,337,403	\$3,312,597
Pumping Plants	\$1,230,000	\$1,230,000	0.6170	0.3830	\$758,960	\$471,040	\$758,960	\$471,040
Valve & Metering Sta.	\$637,100	\$637,100	0.6170	0.3830	\$393,117	\$243,983	\$393,117	\$243,983
Surge Control	\$150,000	\$150,000	0.6170	0.3830	\$92,556	\$57,444	\$92,556	\$57,444
Subtotal	\$20,910,462	\$20,910,462			\$12,902,608	\$8,007,854	\$12,902,608	\$8,007,854
Mobilization @5%	\$1,045,523						\$645,130	\$400,393
Subtotal	\$21,955,985						\$13,547,738	\$8,408,247
Unlisted @10%	\$2,195,599						\$1,354,774	\$840,825
Subtotal	\$24,151,584						\$14,902,512	\$9,249,072
Contingency @25%	\$6,037,896						\$3,725,628	\$2,312,268
Total Field Cost	\$30,189,480						\$18,628,140	\$11,561,340
Non-Contract Costs @30%	\$9,056,844						\$5,588,442	\$3,468,402
Total Construction Costs	\$39,246,323						\$24,216,582	\$15,029,742
Taxes @6% of Field Cost	\$1,811,369						\$1,117,688	\$693,680
Total with Taxes	\$41,057,692						\$25,334,270	\$15,723,422
Rounded Total	\$41,100,000						\$25,300,000	\$15,700,000

Note: The costs in this table include only the cost for the Gallup Regional System. The costs for the main water supply pipeline are shown in Table B1. The costs also exclude the environmental mitigation, cultural resources, right-of-way acquisition and interest during construction costs, which are shown in Table 1.

Table C2
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Gallup Regional System O,M & R Costs
Jan-05 \$

Present Value @ 5.375%								
	Annual Cost	Allocation Factors		Allocated Annual Cost		Allocated Present Value Cost		
		Gallup	Navajo	Gallup	Navajo	Gallup	Navajo	Total
CRSP Rates	\$419,000	0.6170	0.3830	\$258,540	\$160,460	\$4,459,078	\$2,767,475	\$7,226,553
			rounded	\$259,000	\$160,000	rounded	\$4,459,000	\$2,767,000
								\$7,227,000
NTUA Rate	\$473,000	0.6170	0.3830	\$291,860	\$181,140	\$5,033,756	\$3,124,143	\$8,157,899
			rounded	\$292,000	\$181,000	rounded	\$5,034,000	\$3,124,000
								\$8,158,000

Table C3 - Scenario 1 \$60 million/yr Construction Schedule
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Cost of Water to City of Gallup

Jan-05 \$			
Event	Year	Cost to Gallup \$/af	PV @ 5.375%
Construction Begins	2006	\$36	\$80
	2007	\$38	\$80
	2008	\$41	\$80
	2009	\$43	\$80
	2010	\$45	\$80
	2011	\$47	\$80
	2012	\$50	\$80
	2013	\$53	\$80
	2014	\$55	\$80
	2015	\$58	\$80
	2016	\$62	\$80
	2017	\$65	\$80
	2018	\$68	\$80
Project Completion	2019	\$72	\$80
	2020	\$76	\$80
	2021	\$80	\$80
Full Gallup Water Use	2022	\$80	\$76
	2023	\$80	\$72
	2024	\$80	\$68
	2025	\$80	\$65
	2026	\$80	\$62
	2027	\$80	\$58
	2028	\$80	\$55
	2029	\$80	\$53
	2030	\$80	\$50
	2031	\$80	\$47
	2032	\$80	\$45
	2033	\$80	\$43
	2034	\$80	\$41
	2035	\$80	\$38
	2036	\$80	\$36
	2037	\$80	\$35
	2038	\$80	\$33
	2039	\$80	\$31
	2040	\$80	\$30
	2041	\$80	\$28
	2042	\$80	\$27
	2043	\$80	\$25
	2044	\$80	\$24
	2045	\$80	\$23
	2046	\$80	\$22
	2047	\$80	\$21
	2048	\$80	\$19
	2049	\$80	\$18
	2050	\$80	\$18
	2051	\$80	\$17
	2052	\$80	\$16
	2053	\$80	\$15
	2054	\$80	\$14
	2055	\$80	\$13
	2056	\$80	\$13
	2057	\$80	\$12
	2058	\$80	\$12
	2059	\$80	\$11
	2060	\$80	\$10
	2061	\$80	\$10
	2062	\$80	\$9
	2063	\$80	\$9
	2064	\$80	\$8
	2065	\$80	\$8
	2066	\$80	\$8
	2067	\$80	\$7
		Total per acre-foot	\$2,634
		Total for 7500 af	\$19,758,536

Present Values as of 2021

Note: The City of Gallup has not yet reached an agreement with the Jicarilla Apache Nation on the terms of a long-term water lease. For purposes of this report we have assumed that the price will be \$80 per acre-foot (in 2005\$), beginning when the City begins taking water in the year 2021. We also assume that prior to that time the City will pay an annual option fee equivalent in present value to the price for water in 2021. The City and the Jicarilla Nation may agree on terms very different from these.

Table D1- Scenario 1 - \$60 million/year Construction Schedule

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Summary of Annual O,M&R Charges by User

Project Completion In 2021

Jan-05 \$

CRSP Power Rate														
	Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Navajo	Fixed	\$0	\$0	\$0	\$1,670,058	\$1,670,058	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$5,301,442	\$5,301,442
	Variable	\$0	\$0	\$0	\$152,911	\$156,683	\$193,027	\$196,815	\$200,696	\$204,673	\$208,749	\$212,926	\$1,630,341	\$1,670,618
	Total	\$0	\$0	\$0	\$1,822,969	\$1,826,741	\$2,285,623	\$2,289,411	\$2,293,292	\$2,297,269	\$2,301,345	\$2,305,522	\$6,931,783	\$6,972,060
Gallup	Fixed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$998,668	\$998,668
	Variable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$724,781	\$724,781
	Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,723,449	\$1,723,449
Jicarilla	Fixed	\$0	\$0	\$0	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378
	Variable	\$0	\$0	\$0	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$101,785	\$101,785
	Total	\$0	\$0	\$0	\$632,662	\$632,662	\$632,662	\$632,662	\$632,662	\$632,662	\$632,662	\$632,662	\$640,163	\$640,163
Total	Fixed	\$0	\$0	\$0	\$2,208,436	\$2,208,436	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$6,838,488	\$6,838,488
	Variable	\$0	\$0	\$0	\$247,195	\$250,967	\$287,311	\$291,099	\$294,980	\$298,957	\$303,033	\$307,210	\$2,456,907	\$2,497,184
	Total	\$0	\$0	\$0	\$2,455,631	\$2,459,403	\$2,918,285	\$2,922,073	\$2,925,954	\$2,929,931	\$2,934,007	\$2,938,184	\$9,295,395	\$9,335,672
	Rounded	\$0	\$0	\$0	\$2,456,000	\$2,459,000	\$2,918,000	\$2,922,000	\$2,926,000	\$2,930,000	\$2,934,000	\$2,938,000	\$9,295,000	\$9,336,000
NTUA Power Rate														
	Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Navajo	Fixed	\$0	\$0	\$0	\$1,670,058	\$1,670,058	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$2,092,596	\$5,301,442	\$5,301,442
	Variable	\$0	\$0	\$0	\$338,397	\$346,730	\$451,326	\$459,562	\$468,002	\$476,651	\$485,514	\$494,597	\$3,650,792	\$3,740,872
	Total	\$0	\$0	\$0	\$2,008,455	\$2,016,788	\$2,543,922	\$2,552,158	\$2,560,597	\$2,569,246	\$2,578,110	\$2,587,193	\$8,952,234	\$9,042,314
Gallup	Fixed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$998,668	\$998,668
	Variable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,673,639	\$1,673,639
	Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,672,307	\$2,672,307
Jicarilla	Fixed	\$0	\$0	\$0	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378
	Variable	\$0	\$0	\$0	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$209,736	\$209,736
	Total	\$0	\$0	\$0	\$740,614	\$740,614	\$740,614	\$740,614	\$740,614	\$740,614	\$740,614	\$740,614	\$748,114	\$748,114
Total	Fixed	\$0	\$0	\$0	\$2,208,436	\$2,208,436	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$2,630,974	\$6,838,488	\$6,838,488
	Variable	\$0	\$0	\$0	\$540,632	\$548,965	\$653,562	\$661,797	\$670,237	\$678,886	\$687,750	\$696,833	\$5,534,167	\$5,624,247
	Total	\$0	\$0	\$0	\$2,749,068	\$2,757,402	\$3,284,536	\$3,292,771	\$3,301,211	\$3,309,860	\$3,318,723	\$3,327,807	\$12,372,655	\$12,462,735
	Rounded	\$0	\$0	\$0	\$2,749,000	\$2,757,000	\$3,285,000	\$3,293,000	\$3,301,000	\$3,310,000	\$3,319,000	\$3,328,000	\$12,373,000	\$12,463,000

Table D1- Scenario 1 - \$60 million/year Construction Schedule

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Summary of Annual O,M&R Charges by User

Project Completion In 2021

page 2

2023	2024	2025	2030	2035	2040	2045	2050	2055	2060	2065-70
\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442
\$1,711,894	\$1,754,193	\$1,797,542	\$2,030,954	\$2,400,803	\$2,592,986	\$2,592,986	\$2,592,986	\$2,592,986	\$2,592,986	\$2,592,986
\$7,013,336	\$7,055,635	\$7,098,984	\$7,332,396	\$7,702,245	\$7,894,428	\$7,894,428	\$7,894,428	\$7,894,428	\$7,894,428	\$7,894,428
\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668
\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781
\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449	\$1,723,449
\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378
\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785
\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163	\$640,163
\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488
\$2,538,460	\$2,580,759	\$2,624,108	\$2,857,520	\$3,227,369	\$3,419,552	\$3,419,552	\$3,419,552	\$3,419,552	\$3,419,552	\$3,419,552
\$9,376,948	\$9,419,247	\$9,462,596	\$9,696,008	\$10,065,857	\$10,258,040	\$10,258,040	\$10,258,040	\$10,258,040	\$10,258,040	\$10,258,040
\$9,377,000	\$9,419,000	\$9,463,000	\$9,696,000	\$10,066,000	\$10,258,000	\$10,258,000	\$10,258,000	\$10,258,000	\$10,258,000	\$10,258,000
2023	2024	2025	2030	2035	2040	2045	2050	2055	2060	2065-70
\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442	\$5,301,442
\$3,833,186	\$3,927,790	\$4,024,740	\$4,546,769	\$5,450,388	\$5,803,759	\$5,803,759	\$5,803,759	\$5,803,759	\$5,803,759	\$5,803,759
\$9,134,628	\$9,229,232	\$9,326,181	\$9,848,210	\$10,751,829	\$11,105,201	\$11,105,201	\$11,105,201	\$11,105,201	\$11,105,201	\$11,105,201
\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668	\$998,668
\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639
\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307	\$2,672,307
\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378	\$538,378
\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736
\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114	\$748,114
\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488	\$6,838,488
\$5,716,562	\$5,811,165	\$5,908,115	\$6,430,144	\$7,333,763	\$7,687,134	\$7,687,134	\$7,687,134	\$7,687,134	\$7,687,134	\$7,687,134
\$12,555,049	\$12,649,653	\$12,746,603	\$13,268,632	\$14,172,251	\$14,525,622	\$14,525,622	\$14,525,622	\$14,525,622	\$14,525,622	\$14,525,622
\$12,555,000	\$12,650,000	\$12,747,000	\$13,269,000	\$14,172,000	\$14,526,000	\$14,526,000	\$14,526,000	\$14,526,000	\$14,526,000	\$14,526,000

Table D2 - 2040

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Allocation of Annual Fixed O,M&R Costs by User

Jan-05 \$

San Juan Branch		Joint Costs									
		Pumping Plants		Pipelines	Elec.Trans. Line	NIIP Canal	Water Treatment Plant Fixed O,M&R				
		Pumping Plants	Annual Maintenance	Annual Maintenance	Annual Maintenance	Annual Maintenance	Operators	Equipment Replacement	Dredging	Misc. @ 10%	Total
1	Water Treatment Plant (WTP)	River	\$86,751	\$0	\$7,692		\$815,741	\$617,381	\$206,576	\$163,970	\$1,803,669
2	NAPI turnout	01	\$171,628	\$10,312	\$5,361						
3	Shiprock Junction		\$0	\$91,359	\$0						
4	Sanostee turnout	02, 03	\$301,642	\$101,747	\$13,770						
5	Burnham Junction		\$0	\$50,219	\$0						
6	Newcomb turnout		\$0	\$19,291	\$39,600						
7	Sheepsprings turnout	04	\$140,630	\$53,668	\$29,568						
8	Naschitti turnout	05	\$131,941	\$26,261	\$72,813						
9	Tohatchi turnout	06	\$153,398	\$84,933	\$31,721						
10	Coyote Canyon Junction		\$0	\$26,895	\$11,134						
11	Twin Lakes turnout	07	\$144,678	\$12,584	\$30,660						
12	Ya-ta-hey Junction	08	\$152,870	\$25,055	\$5,361						
13	Gallup Junction		\$0	\$11,920	\$3,047						
14	Navajo Chapters		\$0	\$0	\$15,235						
10.1	Coyote Canyon turnout	11	\$80,434	\$18,122	\$8,408						
10.2	Standing Rock turnout	12	\$98,567	\$32,796	\$8,408						
10.3	Dalton Pass turnout	13	\$106,943	\$8,600	\$8,408						
12.1	Rock Springs turnout	09	\$116,819	\$16,385	\$8,408						
12.2	Window Rock turnout	10	\$109,915	\$28,233	\$39,418						
Cutter Branch											
21	WTP	Reservoir	\$0	\$0	\$2,331	\$37,559	\$815,741	\$86,856	\$822	\$90,342	\$993,761
22	Huerfano turnout	01, 02, 03	\$354,966	\$66,132	\$204,411						
23	Nageezi turnout	04	\$106,955	\$25,981	\$8,408						
24	Jicarilla turnout	05	\$120,017	\$31,647	\$75,392						
25	Counselor turnout	06	\$111,076	\$18,452	\$20,248						
26	Torreon turnout		\$0	\$13,969	\$3,047						
		Total	\$2,489,233	\$774,560	\$652,850	\$37,559	\$1,631,483	\$704,237	\$207,398	\$254,312	\$2,797,429

Annual pipeline OM&R estimated at 0.5% of capital cost
 Annual electric transmission line OM&R estimated at 3.0% of capital cost

Table D2 - 2040, page 2
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Fixed O,M&R Costs by User

Allocated Joint Costs							
Total Joint Costs	Allocation Ratios				Allocated Joint Costs		
	Navajo	Gallup	Jicarilla		Navajo	Gallup	Jicarilla
\$1,898,112	0.7724	0.2276	-		\$1,466,082	\$432,031	\$0
\$187,301	0.7724	0.2276	-		\$144,670	\$42,632	\$0
\$91,359	0.7686	0.2314	-		\$70,219	\$21,141	\$0
\$417,159	0.7384	0.2616	-		\$308,029	\$109,131	\$0
\$50,219	0.7278	0.2722	-		\$36,550	\$13,668	\$0
\$58,891	0.7263	0.2737	-		\$42,774	\$16,117	\$0
\$223,866	0.7176	0.2824	-		\$160,648	\$63,217	\$0
\$231,015	0.7134	0.2866	-		\$164,807	\$66,208	\$0
\$270,052	0.7037	0.2963	-		\$190,034	\$80,018	\$0
\$38,029	0.6901	0.3099	-		\$26,245	\$11,784	\$0
\$187,923	0.6493	0.3507	-		\$122,020	\$65,903	\$0
\$183,286	0.6313	0.3687	-		\$115,702	\$67,585	\$0
\$14,967	0.3830	0.6170	-		\$5,732	\$9,235	\$0
\$15,235	1.0000	-	-		\$15,235	\$0	\$0
\$106,965	1.0000	-	-		\$106,965	\$0	\$0
\$139,772	1.0000	-	-		\$139,772	\$0	\$0
\$123,951	1.0000	-	-		\$123,951	\$0	\$0
\$141,613	1.0000	-	-		\$141,613	\$0	\$0
\$177,566	1.0000	-	-		\$177,566	\$0	\$0
\$1,033,651	0.7422	-	0.2578		\$767,182	\$0	\$266,469
\$625,509	0.7422	-	0.2578		\$464,257	\$0	\$161,252
\$141,344	0.7258	-	0.2742		\$102,582	\$0	\$38,761
\$227,056	0.6834	-	0.3166		\$155,161	\$0	\$71,896
\$149,776	1.0000	-	-		\$149,776	\$0	\$0
\$17,016	1.0000	-	-		\$17,016	\$0	\$0
\$6,751,632					\$5,214,586	\$998,668	\$538,378

<i>Dedicated Costs</i>		
Service Area Pumping Plants		
Annual Maintenance		
Navajo	Gallup	Jicarilla
\$3,521		
\$3,521		
\$3,521		
\$3,521		
\$3,521		
\$3,521		
\$17,606		
\$3,521		
\$3,521		
\$3,521		
\$3,521		
\$19,953		
\$3,521		
\$3,521		
\$3,521		
\$3,521		
\$86,856		

Total Annual Fixed OM&R Costs		
Dedicated Costs Plus		
Allocated Joint Costs		
Navajo	Gallup	Jicarilla
\$1,466,082	\$432,031	\$0
\$144,670	\$42,632	\$0
\$70,219	\$21,141	\$0
\$311,550	\$109,131	\$0
\$36,550	\$13,668	\$0
\$46,296	\$16,117	\$0
\$164,170	\$63,217	\$0
\$168,328	\$66,208	\$0
\$193,556	\$80,018	\$0
\$26,245	\$11,784	\$0
\$125,541	\$65,903	\$0
\$115,702	\$67,585	\$0
\$5,732	\$9,235	\$0
\$32,841	\$0	\$0
\$110,486	\$0	\$0
\$143,293	\$0	\$0
\$127,472	\$0	\$0
\$145,134	\$0	\$0
\$197,519	\$0	\$0
\$767,182	\$0	\$266,469
\$467,778	\$0	\$161,252
\$106,103	\$0	\$38,761
\$155,161	\$0	\$71,896
\$153,297	\$0	\$0
\$20,537	\$0	\$0
\$5,301,442	\$998,668	\$538,378

Table D2 - 2040, page 3
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Fixed O,M&R Costs by User

Total Annual Fixed OM&R Costs Cutter Lateral Only Scenario			
Navajo	Gallup	Jicarilla	
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$767,182	\$0	\$266,469	
\$467,778	\$0	\$161,252	
\$106,103	\$0	\$38,761	
\$155,161	\$0	\$71,896	
\$153,297	\$0	\$0	
\$20,537	\$0	\$0	
\$1,670,058	\$0	\$538,378	

[illegible]

Table D3 - 2040

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Projection of Peak Flows by Reach, Annually 2010-2020 and then by 5-Year Period, 2020 - 2070

		Design Capacity	Design Peak Deliveries	Total Deliveries (peak flows)																										
<i>San Juan Branch</i>		by Reach	by Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70				
Number	End	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs				
1	Water Treatment Plant (WTP)	59.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
2	NAPI turnout	59.18	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.62	0.64	0.66	0.67	0.76	0.86	0.97	0.97	0.97	0.97				
3	Shiprock Junction	58.21	6.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.22	4.32	4.43	4.54	4.65	5.26	5.95	6.72	6.72	6.72	6.72				
4	Sanostee turnout	51.49	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.29	1.32	1.35	1.38	1.57	1.77	2.00	2.00	2.00	2.00				
5	Burnham Junction	49.49	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.18	0.18	0.19	0.21	0.24	0.27	0.27	0.27	0.27				
6	Newcomb turnout	49.22	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.98	1.00	1.03	1.05	1.19	1.34	1.52	1.52	1.52	1.52				
7	Sheepsprings turnout	47.70	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.45	0.46	0.47	0.48	0.55	0.62	0.70	0.70	0.70	0.70				
8	Naschitti turnout	47.00	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.99	1.02	1.04	1.07	1.21	1.36	1.54	1.54	1.54	1.54				
9	Tohatchi turnout	45.46	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.28	1.31	1.34	1.38	1.56	1.76	1.99	1.99	1.99	1.99				
10	Coyote Canyon junction	43.47	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18	3.26	3.34	3.42	3.50	3.96	4.48	5.06	5.06	5.06	5.06				
11	Twin Lakes turnout	38.41	1.88	0.00	0.00	0.00	0.00	0.00	1.02	1.04	1.07	1.10	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.47	1.66	1.88	1.88	1.88	1.88	1.88				
12	Ya-ta-hey Junction	36.53	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23	9.46	9.69	9.93	10.18	11.51	13.01	14.70	14.70	14.70	14.70				
13	Gallup Junction	21.83	13.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47	13.47				
14	Navajo Chapters	8.36	8.36	0.00	0.00	0.00	0.00	0.00	2.57	2.55	2.52	2.49	2.47	2.44	5.25	5.38	5.51	5.65	5.79	6.54	7.40	8.36	8.36	8.36	8.36	8.36				
			59.18	0.00	0.00	0.00	0.00	0.00	3.59	3.59	3.59	3.59	3.59	3.59	42.17	42.88	43.61	44.36	45.12	49.25	53.91	59.18	59.18	59.18	59.18	59.18				
10.1	Coyote Canyon turnout	5.06	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.80	0.82	0.84	0.87	0.98	1.11	1.25	1.25	1.25	1.25	1.25				
10.2	Standing Rock turnout	3.81	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.09	0.09	0.09	0.10	0.12	0.13	0.13	0.13	0.13	0.13				
10.3	Dalton Pass turnout	3.68	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	2.37	2.43	2.49	2.55	2.88	3.26	3.68	3.68	3.68	3.68				
			5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18	3.26	3.34	3.42	3.50	3.96	4.48	5.06	5.06	5.06	5.06				
12.1	Rock Springs turnout	14.70	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.05	2.10	2.16	2.21	2.50	2.82	3.19	3.19	3.19	3.19	3.19				
12.2	Window Rock turnout	11.51	11.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.23	7.41	7.59	7.78	7.97	9.01	10.18	11.51	11.51	11.51	11.51	11.51				
			14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23	9.46	9.69	9.93	10.18	11.51	13.01	14.70	14.70	14.70	14.70	14.70				
<i>Cutter Branch</i>				2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-5				
21	WTP	8.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
22	Huerfano turnout	8.34	0.50	0.00	0.00	0.00	0.26	0.26	0.27	0.28	0.28	0.29	0.30	0.31	0.31	0.32	0.33	0.34	0.35	0.39	0.44	0.50	0.50	0.50	0.50	0.50				
23	Nageezi turnout	7.84	1.05	0.00	0.00	0.00	0.54	0.56	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.68	0.69	0.71	0.73	0.82	0.93	1.05	1.05	1.05	1.05	1.05				
24	Jicarilla turnout	6.79	2.15	0.00	0.00	0.00	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15				
25	Counselor turnout	4.64	2.63	0.00	0.00	0.00	1.36	1.39	1.43	1.46	1.50	1.53	1.57	1.61	1.65	1.69	1.73	1.78	1.82	2.06	2.33	2.63	2.63	2.63	2.63	2.63				
26	Torrecon turnout	2.01	2.01	0.00	0.00	0.00	1.04	1.06	1.09	1.12	1.14	1.17	1.20	1.23	1.26	1.29	1.33	1.36	1.39	1.57	1.78	2.01	2.01	2.01	2.01	2.01				
			8.34	0.00	0.00	0.00	5.34	5.42	5.51	5.59	5.67	5.76	5.85	5.94	6.04	6.13	6.23	6.33	6.44	7.00	7.63	8.34	8.34	8.34	8.34	8.34				

Note: Peak flows = average flows times 1.3 peaking factor

Table D4, page 1

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Projection of Peak Flows in Each Reach Allocated to Each Party, Annually 2010-2025

and then by 5-Year Period, 2020 - 2070

Navajo																							
Reach	2010 cfs	2011 cfs	2012 cfs	2013 cfs	2014 cfs	2015 cfs	2016 cfs	2017 cfs	2018 cfs	2019 cfs	2020 cfs	2021 cfs	2022 cfs	2023 cfs	2024 cfs	2025 cfs	2030 cfs	2035 cfs	2040 cfs	2045 cfs	2050 cfs	2055 cfs	2060-70 cfs
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.70	29.41	30.14	30.89	31.65	35.78	40.44	45.71	45.71	45.71	45.71	45.71
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.70	29.41	30.14	30.89	31.65	35.78	40.44	45.71	45.71	45.71	45.71	45.71
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.09	28.79	29.50	30.23	30.98	35.02	39.58	44.74	44.74	44.74	44.74	44.74
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.87	24.46	25.07	25.69	26.33	29.76	33.64	38.02	38.02	38.02	38.02	38.02
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.62	23.18	23.75	24.34	24.94	28.19	31.87	36.02	36.02	36.02	36.02	36.02
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.45	23.00	23.57	24.16	24.76	27.98	31.63	35.75	35.75	35.75	35.75	35.75
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.49	22.02	22.57	23.13	23.70	26.79	30.28	34.23	34.23	34.23	34.23	34.23
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.05	21.57	22.11	22.66	23.22	26.24	29.66	33.53	33.53	33.53	33.53	33.53
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.08	20.58	21.09	21.62	22.15	25.04	28.30	31.99	31.99	31.99	31.99	31.99
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.84	19.30	19.78	20.27	20.77	23.48	26.54	30.00	30.00	30.00	30.00	30.00
11	0.00	0.00	0.00	0.00	0.00	3.59	3.59	3.59	3.59	3.59	3.59	15.66	16.05	16.44	16.85	17.27	19.52	22.06	24.94	24.94	24.94	24.94	24.94
12	0.00	0.00	0.00	0.00	0.00	2.57	2.55	2.52	2.49	2.47	2.44	14.48	14.84	15.21	15.58	15.97	18.05	20.40	23.06	23.06	23.06	23.06	23.06
13	0.00	0.00	0.00	0.00	0.00	2.57	2.55	2.52	2.49	2.47	2.44	5.25	5.38	5.51	5.65	5.79	6.54	7.40	8.36	8.36	8.36	8.36	8.36
14	0.00	0.00	0.00	0.00	0.00	2.57	2.55	2.52	2.49	2.47	2.44	5.25	5.38	5.51	5.65	5.79	6.54	7.40	8.36	8.36	8.36	8.36	8.36
10.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18	3.26	3.34	3.42	3.50	3.96	4.48	5.06	5.06	5.06	5.06	5.06
10.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.39	2.45	2.51	2.57	2.64	2.98	3.37	3.81	3.81	3.81	3.81	3.81
10.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	2.37	2.43	2.49	2.55	2.88	3.26	3.68	3.68	3.68	3.68	3.68
12.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23	9.46	9.69	9.93	10.18	11.51	13.01	14.70	14.70	14.70	14.70	14.70
12.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.23	7.41	7.59	7.78	7.97	9.01	10.18	11.51	11.51	11.51	11.51	11.51

Navajo																							
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-5
21	0.00	0.00	0.00	3.19	3.27	3.36	3.44	3.52	3.61	3.70	3.79	3.89	3.98	4.08	4.18	4.29	4.85	5.48	6.19	6.19	6.19	6.19	6.19
22	0.00	0.00	0.00	3.19	3.27	3.36	3.44	3.52	3.61	3.70	3.79	3.89	3.98	4.08	4.18	4.29	4.85	5.48	6.19	6.19	6.19	6.19	6.19
23	0.00	0.00	0.00	2.94	3.01	3.08	3.16	3.24	3.32	3.40	3.49	3.57	3.66	3.75	3.84	3.94	4.45	5.03	5.69	5.69	5.69	5.69	5.69
24	0.00	0.00	0.00	2.39	2.45	2.52	2.58	2.64	2.71	2.77	2.84	2.91	2.99	3.06	3.14	3.21	3.63	4.11	4.64	4.64	4.64	4.64	4.64
25	0.00	0.00	0.00	2.39	2.45	2.52	2.58	2.64	2.71	2.77	2.84	2.91	2.99	3.06	3.14	3.21	3.63	4.11	4.64	4.64	4.64	4.64	4.64
26	0.00	0.00	0.00	1.04	1.06	1.09	1.12	1.14	1.17	1.20	1.23	1.26	1.29	1.33	1.36	1.39	1.57	1.78	2.01	2.01	2.01	2.01	2.01

and then by 5-Year Period, 2025 - 2070

[illegible]

Table D5, page 1

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Projection of Flows by Reach

Percentage of Peak Flows in Each Reach Allocated to Each Party, Annually 2010-2025
and then by 5-Year Period, 2025 - 2070

Reach	Navajo																							
	2010 %	2011 %	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	2025 %	2030 %	2035 %	2040 %	2045 %	2050 %	2055 %	2060-70 %	
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6806	0.6859	0.6911	0.6963	0.7015	0.7265	0.7501	0.7724	0.7724	0.7724	0.7724	0.7724	
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6806	0.6859	0.6911	0.6963	0.7015	0.7265	0.7501	0.7724	0.7724	0.7724	0.7724	0.7724	
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6759	0.6812	0.6865	0.6918	0.6970	0.7222	0.7461	0.7686	0.7686	0.7686	0.7686	0.7686	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6393	0.6449	0.6505	0.6560	0.6615	0.6884	0.7141	0.7384	0.7384	0.7384	0.7384	0.7384	
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6267	0.6324	0.6381	0.6437	0.6493	0.6767	0.7029	0.7278	0.7278	0.7278	0.7278	0.7278	
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6250	0.6307	0.6364	0.6420	0.6476	0.6750	0.7013	0.7263	0.7263	0.7263	0.7263	0.7263	
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6147	0.6205	0.6263	0.6320	0.6376	0.6654	0.6921	0.7176	0.7176	0.7176	0.7176	0.7176	
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6098	0.6156	0.6214	0.6272	0.6329	0.6608	0.6877	0.7134	0.7134	0.7134	0.7134	0.7134	
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5986	0.6044	0.6103	0.6161	0.6219	0.6502	0.6775	0.7037	0.7037	0.7037	0.7037	0.7037	
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5830	0.5890	0.5949	0.6008	0.6067	0.6355	0.6633	0.6901	0.6901	0.6901	0.6901	0.6901	
11	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.5376	0.5437	0.5497	0.5558	0.5618	0.5917	0.6209	0.6493	0.6493	0.6493	0.6493	0.6493	
12	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.5180	0.5242	0.5303	0.5364	0.5424	0.5726	0.6023	0.6313	0.6313	0.6313	0.6313	0.6313	
13	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.2804	0.2854	0.2904	0.2955	0.3006	0.3270	0.3545	0.3830	0.3830	0.3830	0.3830	0.3830	
14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	10.1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	10.2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	10.3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	12.1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	12.2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	

Navajo		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70
21	0.0000	0.0000	0.0000	0.5977	0.6036	0.6095	0.6153	0.6211	0.6268	0.6325	0.6382	0.6438	0.6494	0.6550	0.6605	0.6660	0.6926	0.7181	0.7422	0.7422	0.7422	0.7422	0.7422	0.7422
22	0.0000	0.0000	0.0000	0.5977	0.6036	0.6095	0.6153	0.6211	0.6268	0.6325	0.6382	0.6438	0.6494	0.6550	0.6605	0.6660	0.6926	0.7181	0.7422	0.7422	0.7422	0.7422	0.7422	0.7422
23	0.0000	0.0000	0.0000	0.5773	0.5833	0.5892	0.5952	0.6010	0.6069	0.6127	0.6185	0.6243	0.6300	0.6357	0.6414	0.6470	0.6744	0.7007	0.7258	0.7258	0.7258	0.7258	0.7258	0.7258
24	0.0000	0.0000	0.0000	0.5269	0.5330	0.5391	0.5452	0.5513	0.5573	0.5634	0.5694	0.5754	0.5813	0.5873	0.5932	0.5991	0.6281	0.6563	0.6834	0.6834	0.6834	0.6834	0.6834	0.6834
25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table D5, page 2
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Projection of Flows by Reach
Percentage of Peak Flows in Each Reach Allocated to Each Party, Annually 2010-2025
and then by 5-Year Period, 2025 - 2070

Gallup																							Jicarilla
2010 %	2011 %	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	2025 %	2030 %	2035 %	2040 %	2045 %	2050 %	2055 %	2060-70 %	All Years %
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3194	0.3141	0.3089	0.3037	0.2985	0.2735	0.2499	0.2276	0.2276	0.2276	0.2276	0.2276	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3194	0.3141	0.3089	0.3037	0.2985	0.2735	0.2499	0.2276	0.2276	0.2276	0.2276	0.2276	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3241	0.3188	0.3135	0.3082	0.3030	0.2778	0.2539	0.2314	0.2314	0.2314	0.2314	0.2314	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3607	0.3551	0.3495	0.3440	0.3385	0.3116	0.2859	0.2616	0.2616	0.2616	0.2616	0.2616	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3733	0.3676	0.3619	0.3563	0.3507	0.3233	0.2971	0.2722	0.2722	0.2722	0.2722	0.2722	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3750	0.3693	0.3636	0.3580	0.3524	0.3250	0.2987	0.2737	0.2737	0.2737	0.2737	0.2737	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3853	0.3795	0.3737	0.3680	0.3624	0.3346	0.3079	0.2824	0.2824	0.2824	0.2824	0.2824	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3902	0.3844	0.3786	0.3728	0.3671	0.3392	0.3123	0.2866	0.2866	0.2866	0.2866	0.2866	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4014	0.3956	0.3897	0.3839	0.3781	0.3498	0.3225	0.2963	0.2963	0.2963	0.2963	0.2963	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4170	0.4110	0.4051	0.3992	0.3933	0.3645	0.3367	0.3099	0.3099	0.3099	0.3099	0.3099	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4624	0.4563	0.4503	0.4442	0.4382	0.4083	0.3791	0.3507	0.3507	0.3507	0.3507	0.3507	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4820	0.4758	0.4697	0.4636	0.4576	0.4274	0.3977	0.3687	0.3687	0.3687	0.3687	0.3687	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7196	0.7146	0.7096	0.7045	0.6994	0.6730	0.6455	0.6170	0.6170	0.6170	0.6170	0.6170	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.000																					

Jan-05 \$

Navajo Dam OM&R estimated at \$1.00 per acre-foot; Gallup's share assumed included in payments to Icarilla Apache Nation; therefore Icarilla assumed to pay both Icarilla and Gallup OM&R directly to dam operator.

Table D6, page 2

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Allocation of Annual Variable O,M&R Costs by User

CRSP Power Rates

Jan-05 \$

Navajo Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$635,734	\$651,500	\$667,657	\$684,215	\$701,184	\$792,551	\$895,825	\$1,012,555	\$1,012,555	\$1,012,555	\$1,012,555	\$1,012,555	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$151,058	\$154,804	\$158,643	\$162,577	\$166,609	\$188,319	\$212,858	\$240,595	\$240,595	\$240,595	\$240,595	\$240,595	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$190,981	\$195,692	\$200,520	\$205,468	\$210,539	\$237,841	\$268,702	\$303,583	\$303,583	\$303,583	\$303,583	\$303,583	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,139	\$2,173	\$2,207	\$2,241	\$2,277	\$2,469	\$2,686	\$2,932	\$2,932	\$2,932	\$2,932	\$2,932	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$68,810	\$70,507	\$72,246	\$74,029	\$75,855	\$85,696	\$96,806	\$109,370	\$109,370	\$109,370	\$109,370	\$109,370	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,346	\$57,722	\$59,132	\$60,578	\$62,059	\$70,034	\$79,048	\$89,236	\$89,236	\$89,236	\$89,236	\$89,236	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90,373	\$92,586	\$94,854	\$97,178	\$99,560	\$112,385	\$126,881	\$143,266	\$143,266	\$143,266	\$143,266	\$143,266	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$14,710	\$14,710	\$14,710	\$14,710	\$14,710	\$14,710	\$65,404	\$66,995	\$68,625	\$70,295	\$72,007	\$81,224	\$91,642	\$103,418	\$103,418	\$103,418	\$103,418	\$103,418	
12	\$0	\$0	\$0	\$0	\$0	\$12,805	\$12,680	\$12,551	\$12,419	\$12,283	\$12,144	\$72,068	\$73,856	\$75,687	\$77,564	\$79,488	\$89,845	\$101,553	\$114,786	\$114,786	\$114,786	\$114,786	\$114,786	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$4,963	\$4,914	\$4,864	\$4,813	\$4,761	\$4,707	\$10,126	\$10,377	\$10,634	\$10,898	\$11,168	\$12,624	\$14,269	\$16,128	\$16,128	\$16,128	\$16,128	\$16,128	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,858	\$8,052	\$8,252	\$8,457	\$8,667	\$9,796	\$11,072	\$12,515	\$12,515	\$12,515	\$12,515	\$12,515	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,089	\$8,289	\$8,495	\$8,705	\$8,921	\$10,084	\$11,398	\$12,883	\$12,883	\$12,883	\$12,883	\$12,883	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,967	\$15,339	\$15,719	\$16,109	\$16,508	\$18,659	\$21,091	\$23,839	\$23,839	\$23,839	\$23,839	\$23,839	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,659	\$35,518	\$36,399	\$37,302	\$38,227	\$43,208	\$49,277	\$55,202	\$55,202	\$55,202	\$55,202	\$55,202	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,886	\$36,776	\$37,688	\$38,623	\$39,581	\$44,738	\$51,151	\$57,157	\$57,157	\$57,157	\$57,157	\$57,157	
21	\$0	\$0	\$0	\$67,473	\$69,146	\$70,861	\$72,618	\$74,419	\$76,265	\$78,156	\$80,095	\$82,081	\$84,117	\$86,203	\$88,341	\$90,531	\$102,328	\$115,662	\$130,733	\$130,733	\$130,733	\$130,733	\$130,733	
22	\$0	\$0	\$0	\$45,587	\$46,711	\$47,863	\$49,044	\$50,254	\$51,495	\$52,765	\$54,068	\$55,403	\$56,770	\$58,172	\$59,609	\$61,081	\$69,007	\$77,967	\$88,094	\$88,094	\$88,094	\$88,094	\$88,094	
23	\$0	\$0	\$0	\$11,001	\$11,260	\$11,526	\$11,798	\$12,077	\$12,363	\$12,655	\$12,955	\$13,263	\$13,578	\$13,901	\$14,232	\$14,571	\$16,397	\$18,462	\$20,795	\$20,795	\$20,795	\$20,795	\$20,795	
24	\$0	\$0	\$0	\$12,833	\$13,151	\$13,477	\$13,812	\$14,154	\$14,505	\$14,865	\$15,234	\$15,611	\$15,998	\$16,395	\$16,802	\$17,219	\$19,462	\$21,998	\$24,865	\$24,865	\$24,865	\$24,865	\$24,865	
25	\$0	\$0	\$0	\$14,016	\$14,363	\$14,719	\$15,084	\$15,458	\$15,842	\$16,235	\$16,637	\$17,050	\$17,473	\$17,906	\$18,350	\$18,805	\$21,256	\$24,025	\$27,156	\$27,156	\$27,156	\$27,156	\$27,156	
26	\$0	\$0	\$0	\$2,001	\$2,051	\$2,102	\$2,154	\$2,208	\$2,262	\$2,318	\$2,376	\$2,435	\$2,495	\$2,557	\$2,620	\$2,685	\$3,035	\$3,431	\$3,878	\$3,878	\$3,878	\$3,878	\$3,878	
Total	\$0	\$0	\$0	\$152,911	\$156,683	\$159,027	\$160,815	\$162,096	\$163,749	\$165,226	\$166,534	\$167,770	\$168,934	\$170,026	\$171,149	\$172,302	\$173,484	\$174,695	\$175,935	\$177,204	\$178,501	\$179,825	\$181,176	

Table D6, page 3
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Variable O,M&R Costs by User
CRSP Power Rates
Jan-05 \$

Gallup Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	\$290,883	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	\$70,899	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	\$106,189	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	\$42,508	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	\$34,648	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	\$58,709	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	\$53,896	
12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	\$67,049	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	\$724,781	

Table D6, page 4
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Variable O,M&R Costs by User
CRSP Power Rates
Jan-05 \$

Jicarilla Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	\$0	\$0	\$0	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	\$45,408	
22	\$0	\$0	\$0	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	\$30,263	
23	\$0	\$0	\$0	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	\$7,092	
24	\$0	\$0	\$0	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	\$11,521	
25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$94,284	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	\$101,785	

Table D7, page 1
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Variable O,M&R Costs by User
NTUA Power Rates
Jan-05 \$

San Juan Branch		Dedicated Variable OM&R Costs at Design Capacity (all Navajo)	Joint Variable O,M&R at Design Capacity					Navajo Dam OM&R	Projected Flow as a Percentage of Design Flow by Year																											
			Pump Plant Energy	WTP Energy	WTP Chemicals	WTP Misc.	Total		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70					
									2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70					
Reach	End	Booster Pump Energy																																		
1	Water Treatment Plant (WTP)		\$93,794	\$511,354	\$962,457	\$147,381	\$1,714,987		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7126	0.7246	0.7369	0.7495	0.7625	0.8322	0.9110	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
2	NAPI turnout		\$921,270				\$921,270		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7126	0.7246	0.7369	0.7495	0.7625	0.8322	0.9110	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
3	Shiprock Junction						\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7140	0.7259	0.7382	0.7508	0.7636	0.8330	0.9114	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
4	Sanoeste turnout	\$11,411	\$1,200,523				\$1,200,523		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7252	0.7367	0.7485	0.7606	0.7729	0.8396	0.9149	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
5	Burnham Junction						\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7291	0.7405	0.7521	0.7640	0.7762	0.8419	0.9161	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	Newcomb turnout	\$8,673					\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7297	0.7410	0.7526	0.7645	0.7766	0.8422	0.9163	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
7	Sheepsprings turnout	\$3,994	\$445,199				\$445,199		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7329	0.7441	0.7556	0.7673	0.7793	0.8441	0.9173	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
8	Naschitti turnout	\$8,844	\$357,554				\$357,554		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7345	0.7456	0.7570	0.7687	0.7806	0.8450	0.9178	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
9	Tohatchi turnout	\$11,354	\$586,004				\$586,004		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7381	0.7491	0.7603	0.7718	0.7836	0.8471	0.9189	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
10	Coyote Canyon Junction						\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7432	0.7539	0.7649	0.7762	0.7878	0.8501	0.9204	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
11	Twin Lakes turnout	\$10,727	\$454,541				\$454,541		0.0000	0.0000	0.0000	0.0000	0.0000	0.0935	0.0935	0.0935	0.0935	0.0935	0.0935	0.7584	0.7685	0.7788	0.7894	0.8003	0.8589	0.9251	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
12	Ya-ta-hey Junction		\$537,794				\$537,794		0.0000	0.0000	0.0000	0.0000	0.0000	0.0704	0.0697	0.0690	0.0683	0.0676	0.0668	0.7651	0.7749	0.7850	0.7953	0.8059	0.8628	0.9272	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
13	Gallup Junction						\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.1178	0.1167	0.1155	0.1143	0.1130	0.1118	0.8575	0.8634	0.8696	0.8758	0.8822	0.9168	0.9559	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
14	Navajo Chapters	\$47,698					\$0		0.0000	0.0000	0.0000	0.0000	0.0000	0.3077	0.3047	0.3016	0.2984	0.2952	0.2918	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
10.1	Coyote Canyon turnout	\$7,075	\$29,940				\$29,940		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
10.2	Standing Rock turnout	\$799	\$37,304				\$37,304		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
10.3	Dalton Pass turnout	\$20,997	\$49,511				\$49,511		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
12.1	Rock Springs turnout	\$18,201	\$145,064				\$145,064		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	1.7078	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
12.2	Window Rock turnout	\$65,672	\$103,373				\$103,373		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	1.9447	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
Cutter Branch									0.0000	0.0000	0.0000	0.6409	0.6504	0.6601	0.6701	0.6803	0.6908	0.7015	0.7125	0.7238	0.7353	0.7472	0.7593	0.7718	0.8387	0.9144	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
21	WTP			\$63,030	\$136,153	\$19,918	\$219,101	\$4,644	0.0000	0.0000	0.0000	0.6409	0.6504	0.6601	0.6701	0.6803	0.6908	0.7015	0.7125	0.7238	0.7353	0.7472	0.7593	0.7718	0.8387	0.9144	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
22	Huerfano turnout	\$2,853	\$347,195				\$347,195		0.0000	0.0000	0.0000	0.6409	0.6504	0.6601	0.6701	0.6803	0.6908	0.7015	0.7125	0.7238	0.7353	0.7472	0.7593	0.7718	0.8387	0.9144	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
23	Nageezi turnout	\$5,991	\$76,487				\$76,487		0.0000	0.0000	0.0000	0.6488	0.6581	0.6676	0.6774	0.6874	0.6976	0.7081	0.7189	0.7299	0.7412	0.7528	0.7647	0.7768	0.8423	0.9163	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
24	Jicarilla turnout		\$107,615				\$107,615		0.0000	0.0000	0.0000	0.6693	0.6781	0.6870	0.6962	0.7056	0.7153	0.7252	0.7353	0.7457	0.7563	0.7672	0.7784	0.7899	0.8515	0.9212	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
25	Counselor turnout	\$14,949	\$65,368				\$65,368		0.0000	0.0000	0.0000	0.5161	0.5289	0.5420	0.5555	0.5692	0.5834	0.5978	0.6127	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
26	Torreón turnout	\$11,468					\$0		0.0000	0.0000	0.0000	0.5161	0.5289	0.5420	0.5555	0.5692	0.5834	0.5978	0.6127	0.6279	0.6434	0.6594	0.6757	0.6925	0.7827	0.8847	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
		\$250,706	\$5,558,536	\$574,384	\$1,098,610	\$167,299	\$7,398,820	\$37,599																												

NTUA rates used in this table are \$0.0200 per KWH plus \$198.00 per year per KW.
Navajo Dam OM&R estimated at \$1.00 per acre-foot; Gallup's share assumed included in payments to Jicarilla Apache Nation; therefore Jicarilla assumed to pay both Jicarilla and Gallup OM&R directly to dam operator.

Table D7, page 2
Navajo - Gallup Water Supply Project
San Juan River PNM Alternative - 2040
Allocation of Annual Variable O,M&R Costs by User
NTUA Power Rates
Jan-05 \$

Navajo Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$847,657	\$868,678	\$890,222	\$912,299	\$934,924	\$1,056,749	\$1,194,449	\$1,350,091	\$1,350,091	\$1,350,091	\$1,350,091	\$1,350,091	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$446,766	\$457,846	\$469,260	\$480,836	\$492,761	\$556,970	\$629,546	\$711,579	\$711,579	\$711,579	\$711,579	\$711,579	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$564,841	\$578,775	\$593,055	\$607,688	\$622,685	\$703,435	\$794,707	\$897,872	\$897,872	\$897,872	\$897,872	\$897,872	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,329	\$6,427	\$6,527	\$6,630	\$6,736	\$7,304	\$7,947	\$8,673	\$8,673	\$8,673	\$8,673	\$8,673	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$203,513	\$208,532	\$213,676	\$218,947	\$224,349	\$253,435	\$286,312	\$323,473	\$323,473	\$323,473	\$323,473	\$323,473	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$166,649	\$170,719	\$174,890	\$179,164	\$183,544	\$202,131	\$233,791	\$263,925	\$263,925	\$263,925	\$263,925	\$263,925	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$267,287	\$273,832	\$280,540	\$287,413	\$294,458	\$332,389	\$375,262	\$423,722	\$423,722	\$423,722	\$423,722	\$423,722	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$43,506	\$43,506	\$43,506	\$43,506	\$43,506	\$43,506	\$193,438	\$198,142	\$202,962	\$207,902	\$212,065	\$240,225	\$271,038	\$305,865	\$305,865	\$305,865	\$305,865	\$305,865	
12	\$0	\$0	\$0	\$0	\$0	\$37,873	\$37,501	\$37,120	\$36,729	\$36,329	\$35,918	\$213,149	\$218,435	\$223,852	\$229,403	\$235,093	\$265,726	\$300,352	\$339,489	\$339,489	\$339,489	\$339,489	\$339,489	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$14,678	\$14,534	\$14,386	\$14,234	\$14,079	\$13,920	\$29,947	\$30,690	\$31,451	\$32,231	\$33,030	\$37,334	\$42,199	\$47,698	\$47,698	\$47,698	\$47,698	\$47,698	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,240	\$23,816	\$24,407	\$25,012	\$25,633	\$28,973	\$32,748	\$37,015	\$37,015	\$37,015	\$37,015	\$37,015	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,923	\$24,516	\$25,124	\$25,747	\$26,386	\$29,824	\$33,710	\$38,103	\$38,103	\$38,103	\$38,103	\$38,103	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$44,269	\$45,366	\$46,491	\$47,644	\$48,826	\$55,188	\$62,380	\$70,508	\$70,508	\$70,508	\$70,508	\$70,508	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,506	\$105,048	\$107,653	\$110,323	\$113,059	\$127,791	\$278,832	\$163,265	\$163,265	\$163,265	\$163,265	\$163,265	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106,135	\$108,767	\$111,465	\$114,229	\$117,062	\$132,316	\$328,736	\$169,045	\$169,045	\$169,045	\$169,045	\$169,045	
21	\$0	\$0	\$0	\$85,708	\$87,834	\$90,012	\$92,244	\$94,532	\$96,876	\$99,279	\$101,741	\$104,264	\$106,850	\$109,500	\$112,215	\$114,998	\$129,983	\$146,920	\$166,065	\$166,065	\$166,065	\$166,065	\$166,065	
22	\$0	\$0	\$134,825	\$138,151	\$141,559	\$145,051	\$148,630	\$152,298	\$156,057	\$159,909	\$163,856	\$167,902	\$172,047	\$176,296	\$180,650	\$204,093	\$230,592	\$260,543	\$260,543	\$260,543	\$260,543	\$260,543	\$260,543	
23	\$0	\$0	\$32,537	\$33,303	\$34,089	\$34,893	\$35,718	\$36,563	\$37,429	\$38,316	\$39,226	\$40,158	\$41,113	\$42,092	\$43,095	\$48,497	\$54,562	\$61,503	\$61,503	\$61,503	\$61,503	\$61,503	\$61,503	
24	\$0	\$0	\$37,955	\$38,896	\$39,861	\$40,849	\$41,862	\$42,900	\$43,964	\$45,055	\$46,172	\$47,317	\$48,490	\$49,693	\$50,925	\$57,561	\$65,062	\$73,540	\$73,540	\$73,540	\$73,540	\$73,540	\$73,540	
25	\$0	\$0	\$41,453	\$42,481	\$43,534	\$44,614	\$45,720	\$46,854	\$48,016	\$49,207	\$50,427	\$51,678	\$52,959	\$54,273	\$55,619	\$62,866	\$71,058	\$80,317	\$80,317	\$80,317	\$80,317	\$80,317	\$80,317	
26	\$0	\$0	\$5,919	\$6,066	\$6,216	\$6,370	\$6,528	\$6,690	\$6,856	\$7,026	\$7,200	\$7,379	\$7,562	\$7,749	\$7,941	\$8,976	\$10,146	\$11,468	\$11,468	\$11,468	\$11,468	\$11,468	\$11,468	
Total	\$0	\$0	\$338,397	\$346,730	\$451,326	\$459,562	\$468,002	\$476,651	\$485,514	\$494,597	\$503,792	\$513,072	\$523,186	\$532,790	\$543,704	\$554,938	\$570,508	\$580,759	\$580,759	\$580,759	\$580,759	\$580,759	\$580,759	

Table D7, page 3
 Navajo - Gallup Water Supply Project
 San Juan River PNM Alternative - 2040
 Allocation of Annual Variable O,M&R Costs by User
 NTUA Power Rates
 Jan-05 \$

Gallup Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060-70	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	\$390,349	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	\$209,691	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	\$314,062	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	\$125,720	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	\$102,473	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	\$173,636	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	\$159,403	
12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	\$198,305	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	\$1,673,639	

Table D7, page 4
 Navajo - Gallup Water Supply Project
 San Juan River PNM Alternative - 2040
 Allocation of Annual Variable O,M&R Costs by User
 NTUA Power Rates
 Jan-05 \$

Jicarilla Share of Variable O,M&R Costs by Year																								
Reach	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2035	2040	2045	2050	2055	2060	
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	\$7,501	
2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	\$0	\$0	\$0	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	\$57,680	
22	\$0	\$0	\$0	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	\$89,505	
23	\$0	\$0	\$0	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	\$20,975	
24	\$0	\$0	\$0	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	\$34,075	
25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$202,236	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	\$209,736	

Table D8 - 2040

Navajo - Gallup Water Supply Project

San Juan River PNM Alternative - 2040

Cost of Water to Navajo Nation

Discount rate = 2.875%

Year		peak cfs		Annual afy	Discounted		CRSP charge \$4.12/af	Discounted to 2021
		Main Lateral	Cutter Lateral		Peak cfs	Annual afy		
2013	1	-	3.19	3.19	1,779	4.01	2,232	\$7,321
2014	2	-	3.27	3.27	1,823	3.99	2,223	\$7,503
2015	3	3.59	3.36	6.95	3,868	8.23	4,585	\$15,920
2016	4	3.59	3.44	7.03	3,915	8.10	4,511	\$16,111
2017	5	3.59	3.52	7.12	3,962	7.97	4,438	\$16,306
2018	6	3.59	3.61	7.20	4,011	7.84	4,367	\$16,506
2019	7	3.59	3.70	7.29	4,061	7.72	4,297	\$16,711
2020	8	3.59	3.79	7.38	4,112	7.60	4,230	\$16,922
2021	9	28.70	3.89	32.59	18,145	32.59	18,145	\$74,676
2022	10	29.41	3.98	33.39	18,595	32.46	18,076	\$76,528
2023	11	30.14	4.08	34.22	19,056	32.34	18,006	\$78,426
2024	12	30.89	4.18	35.07	19,529	32.21	17,937	\$80,371
2025	13	31.65	4.29	35.94	20,013	32.09	17,868	\$82,364
2026	14	32.44	4.39	36.83	20,510	31.96	17,800	\$84,407
2027	15	33.24	4.50	37.74	21,018	31.84	17,731	\$86,500
2028	16	34.07	4.61	38.68	21,540	31.72	17,663	\$88,645
2029	17	34.91	4.73	39.64	22,074	31.60	17,595	\$90,844
2030	18	35.78	4.85	40.62	22,621	31.48	17,528	\$93,097
2031	19	36.67	4.97	41.63	23,182	31.36	17,460	\$95,405
2032	20	37.57	5.09	42.66	23,757	31.24	17,393	\$97,771
2033	21	38.51	5.21	43.72	24,346	31.12	17,327	\$100,196
2034	22	39.46	5.34	44.81	24,950	31.00	17,260	\$102,681
2035	23	40.44	5.48	45.92	25,569	30.88	17,194	\$105,227
2036	24	41.44	5.61	47.06	26,203	30.76	17,128	\$107,837
2037	25	42.47	5.75	48.22	26,853	30.64	17,062	\$110,511
2038	26	43.52	5.89	49.42	27,519	30.52	16,997	\$113,252
2039	27	44.60	6.04	50.64	28,201	30.41	16,931	\$116,061
2040	28	45.71	6.19	51.90	28,900	30.29	16,866	\$118,939
2041	29	45.71	6.19	51.90	28,900	29.44	16,395	\$118,939
2042	30	45.71	6.19	51.90	28,900	28.62	15,937	\$118,939
2043	31	45.71	6.19	51.90	28,900	27.82	15,491	\$118,939
2044	32	45.71	6.19	51.90	28,900	27.04	15,058	\$118,939
2045	33	45.71	6.19	51.90	28,900	26.29	14,638	\$118,939
2046	34	45.71	6.19	51.90	28,900	25.55	14,228	\$118,939
2047	35	45.71	6.19	51.90	28,900	24.84	13,831	\$118,939
2048	36	45.71	6.19	51.90	28,900	24.14	13,444	\$118,939
2049	37	45.71	6.19	51.90	28,900	23.47	13,069	\$118,939
2050	38	45.71	6.19	51.90	28,900	22.81	12,703	\$118,939
2051	39	45.71	6.19	51.90	28,900	22.18	12,348	\$118,939
2052	40	45.71	6.19	51.90	28,900	21.56	12,003	\$118,939
2053	41	45.71	6.19	51.90	28,900	20.95	11,668	\$118,939
2054	42	45.71	6.19	51.90	28,900	20.37	11,342	\$118,939
2055	43	45.71	6.19	51.90	28,900	19.80	11,025	\$118,939
2056	44	45.71	6.19	51.90	28,900	19.25	10,717	\$118,939
2057	45	45.71	6.19	51.90	28,900	18.71	10,417	\$118,939
2058	46	45.71	6.19	51.90	28,900	18.18	10,126	\$118,939
2059	47	45.71	6.19	51.90	28,900	17.68	9,843	\$118,939
2060	48	45.71	6.19	51.90	28,900	17.18	9,568	\$118,939
2061	49	45.71	6.19	51.90	28,900	16.70	9,301	\$118,939
2062	50	45.71	6.19	51.90	28,900	16.24	9,041	\$118,939
2063	51	45.71	6.19	51.90	28,900	15.78	8,788	\$118,939
2064	52	45.71	6.19	51.90	28,900	15.34	8,542	\$118,939
2065	53	45.71	6.19	51.90	28,900	14.91	8,304	\$118,939
2066	54	45.71	6.19	51.90	28,900	14.50	8,072	\$118,939
2067	55	45.71	6.19	51.90	28,900	14.09	7,846	\$118,939
2068	56	45.71	6.19	51.90	28,900	13.70	7,627	\$118,939
2069	57	45.71	6.19	51.90	28,900	13.31	7,414	\$118,939
2070	58	45.71	6.19	51.90	28,900	12.94	7,206	\$118,939
Total					1,287.32	716,842	\$5,585,213	\$2,950,140
Annual Equivalent					48.85	27,203		27,203
							Total PV per acre foot	\$108.45

Note: Navajo annual equivalent is calculated for the purpose of determining the levelized cost per acre foot to amortize the present value capital costs over the 58 year period of water deliveries. CRSP charge for water has a present value of \$108.45 per acre foot. This charge was amortized over 50 years at the CRSP interest rate of 2.875% to determine an annual charge of \$4.12 per acre foot. This charge is then applied to all water delivered to the Navajos.