

4/3

Cenarios - for Plate Sprinklers:

Assumptions -

1. Irrigation allocation w/o sprinklers = \$2500/acre
i.e. total repayment from farmer and power revenues = \$50/acre/farm
2. Sprinkler cost = \$10/acre/annum w/o regard who pays
3. Repayment liability if no payment for sprinklers required = \$10/acre

Case A. Farmer buys sprinklers:

Farmer pays:

$$\text{Construction cost: } 10 \times 50 = \$500$$

$$\text{Sprinkler cost: } 10 \times 55 = \underline{\underline{550}} \\ \$1050 \text{ per acre}$$

Power revenues pay:

$$\text{Construction cost: } \$40 \times 50 = \underline{\underline{2000}} \text{ per acre}$$

Case B. Sprinkler cost added to project cost (i.e., USBR furnishes sprinklers)

$$\text{Total project cost} = 2500 + (10 \times 55) = \$3050/\text{acre}$$

Farmer pays:

$$\text{Construction cost: } 20 \times 50 = \$1000/\text{acre}$$

Power revenues pay:

$$\text{Construction cost: } 30 \times 50 = \$1500$$

$$\text{Sprinkler cost: } 10 \times \underline{\underline{55}} = \underline{\underline{550}} \\ \$2050/\text{acre}$$

\therefore Case B hurts power revenues by cost of sprinklers in development
since i.e. \$10 \times 5 \text{ acre} = \\$50/\text{acre}.

Notes: ① If choice is former pays for expansion or
grainity integration, B/M may be higher w/ grainity and
therefore smaller repayment ability. Financial ability
w/ spin-off could offset effect on power revenues
indicated above. ($\$1.44/\text{cwt}/\text{annum}$)

② Difference in interest rate might affect effect on
power revenues.

③ All of above expansion is probably remote

a. Seems most unlikely could get Congress to approve
USBR paying acquisition and replacement costs for spin-off
for 55 years.)

b. Should reanalyze on assumption initial
installation provided has project cost and former finances
~~and~~ maintenance and replacement. Seems good chance
this could ~~have~~ have value burden on power revenue
if compared to either grainity or former financing
of initial installation.

* It's important to note grainity would increase
O&G cost pumping and would induce downstream
salinity costs.

TO ALL BRANCH CHIEFS

THE ATTACHED PACKAGE CONTAINS DATA WHICH DESCRIBES THE ANIMAS-PLATA PROJECT PLAN AS CURRENTLY VISUALIZED BY THE PLAN FORMULATION BRANCH. THIS PACKAGE SHOULD BE ADEQUATE FOR YOU TO INITIATE MOST OF YOUR STUDIES. IT APPEARS THAT THE PLAN IS ABOUT 90 PERCENT FIRM. CHANGES COULD OCCUR WHICH MAY CAUSE MODIFICATIONS BUT THESE SHOULD BE MINOR AND AS THEY OCCUR WE WILL UPDATE THE INFORMATION PROVIDED YOU.

YOU SHOULD BE AWARE THAT THE FOLLOWING PLAN COMPONENTS HAVE NOT BEEN COMPLETED:

1. The 55,000 acre-feet of Industrial Water for the Southern Utes does not have tribal approval.
2. The 25,000 acre-feet of M&I water for Durango is unresolved.
3. Land areas included for the Tribes are under classification study and adjustments may be necessary.
4. New Mexico's allocations of project water supply to Irrigation and M&I has not been officially approved. Neither has the delivery point for M&I water for the San Juan County Communities been identified.

MAPS WHICH SHOW THE CANAL ALIGNMENTS AND THE LANDS PROPOSED FOR IRRIGATION ARE AVAILABLE ON REQUEST. THESE MAPS CONSIST OF REPRODUCTIONS OF USGS 7½ MINUTE QUADRANGLES. PROJECT FACILITIES ARE ALSO SHOWN ON THESE MAPS.

ANY COMMENTS OR SUGGESTIONS WILL BE APPRECIATED. AS SOON AS ALL PHASES OF THE PLAN HAVE BEEN APPROVED BY LOCAL INTEREST GROUPS WE WILL SEND THE PACKAGE TO COOPERATING FEDERAL AGENCIES.

ANIMAS - LA PLATA PROJECT

WESTERN COLORADO PROJECTS OFFICE

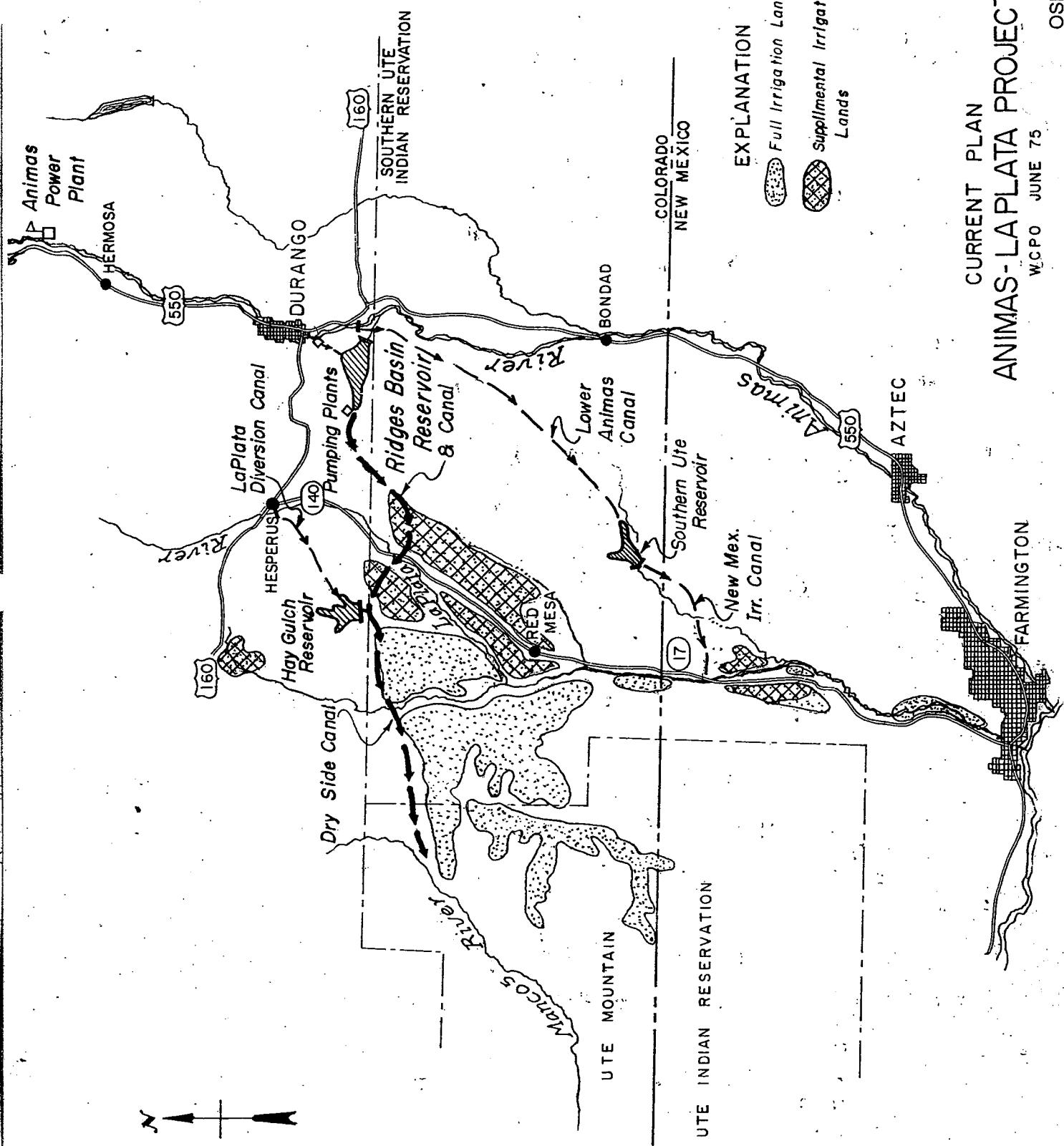
DURANGO, COLORADO

JUNE 1975

OSE-0976

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CURRENT PLAN
ANIMAS-LAPLATA PROJECT

W.CPO JUNE 75

OSE-0978

ANIMAS-LA PLATA PROJECT

Summary

June 1975

LOCATION

The Animas-La Plata Project would be located in La Plata and Montezuma Counties of southwestern Colorado and San Juan County of northern New Mexico in the Upper Colorado River Basin.

AUTHORIZATION

Authorization for the construction, operation and maintenance of the Animas-La Plata Project came under Title V of Public Law 90-537, September 30, 1968 as a participating project under the Colorado River Storage Project (CRSP) Act (70 Stat. 105; 43 U.S.C. 620).

PROJECT OBJECTIVES

The Animas-La Plata Project has been formulated as a multiple purpose water resource development. It would provide municipal and industrial water for the cities of Durango, Aztec and Farmington and for the development of resources on the Southern Ute and Ute Mountain Ute Indian Reservations. The project would provide irrigation water for lands in the La Plata River drainage, some of which are dry and others which have been historically irrigated, but are presently dry because of insufficient water supplies. Recreational opportunities and fish and wildlife enhancement would also be project objectives. In addition the project would provide minimal flood control.

The following paragraphs describe the current project plan. It appears to be more environmentally acceptable and would contribute less salinity to the River than the plan in the authorizing document. Refinements undoubtedly will occur as the plan is finalized. However, these should be minor and not effect the general plan concept.

CURRENT PLAN

The current plan would use Ridges Basin Dam and Reservoir as the main storage feature of the project. The Durango Pumping Plant south of Durango would pump Animas River water into Ridges Basin Reservoir. In addition to the pumping plant, the facilities to accomplish the delivery would include a diversion dam on the Animas River, a pumpstock and an earthlined canal to the reservoir. When available, municipal and industrial water for Durango would be released from the canal directly to a treatment plant. When not pumping or when there are insufficient flows in the canal, municipal and industrial releases would be made from Ridges Basin Reservoir through a pipeline out of the north side of the reservoir. It is assumed that the municipal and industrial water would then be conveyed to a treatment

plant constructed by the city of Durango near the reservoir. In addition to storing a portion of Durango's municipal and industrial water, Ridges Basin Reservoir would provide storage for New Mexico municipal and industrial water, the Ute Mountain Ute Indian Tribe's industrial and irrigation water and irrigation water for the Colorado irrigators.

Municipal and industrial water for Farmington and Aztec would be supplied from the Animas River and supplemented by releases from Ridges Basin Reservoir when direct flow was insufficient.

The Ridges Basin Pumping Plant would pump water from Ridges Basin Reservoir into Ridges Basin Canal, which would then convey the water to the La Plata River drainage. Ridges Basin Canal would provide all of the irrigation water from Red Mesa and a base flow for the Dry Side area. The Dry Side Canal would extend westward from Hay Gulch and would serve all of the Dry Side area with flows from Ridges Basin Canal except during July and August, when releases would be needed from Hay Gulch Reservoir to supplement the flows from Ridges Basin Canal. Hay Gulch Reservoir would store excess La Plata River flows. Water would be diverted to Hay Gulch by the La Plata Diversion Dam and Canal.

The Lower Animas Canal would be located about four miles below the Durango Pumping Plant and would divert water from the Animas River by gravity to Southern Ute Reservoir. This water would be used for industrial purposes on the Southern Ute Indian Reservation and for irrigation in New Mexico. Water from the Lower Animas Canal would irrigate Southern Ute Indian lands by gravity means near the reservoir. Irrigation water for the New Mexico lands would be conveyed from the Southern Ute Reservoir by the New Mexico Irrigation Canal. Sprinkler irrigation would be provided to the Third Terrace and Tunnel Ditch areas of New Mexico. Pressure in most of these two areas would be provided from the slope of the ground, with only one small pumping plant required to supply pressure for part of the Third Terrace area.

The proposed Animas Power Plant would generate power to be used along with supplemental purchases from CRSP to provide power for project pumping. Animas River flows would be diverted from the river channel into a 1,750-cfs capacity tunnel; a minimum 50-cfs bypass has been assumed in all current studies. The tunnel inlet would be located on the first sharp bend south of the Tacoma Power Plant. The tunnel would convey water from the inlet to a penstock, which would lead to the power plant. It is planned that the power plant would be recessed in the canyon wall so that it would not detract from the area's scenery.

Sprinkler irrigation is planned for all project areas except the La Plata, New Mexico area; the La Plata, Colorado area above Ridges Basin Canal; and the Southern Ute Indian lands around Southern Ute Reservoir. The lateral systems would provide sprinkler pressure of 45 to 100 psi at the farm turn-outs. Pumping plants would provide this pressure where the ground slope was insufficient to pressurize the pipeline. Project drainage also would be provided.

Fisheries would be created in the inactive pool of project reservoirs and recreational facilities would be provided at each reservoir. A minimum stream bypass of 100 cfs is planned below both the Durango Pumping Plant and the Lower Animas Diversion Canal, except when the natural flow drops below 100 cfs.

SCHEDULE

The Definite Plan Report and Draft Environmental Statement are scheduled for completion by September 1976. The Final Environmental Statement should be available in January 1977.

CURRENT PLAN

MUNICIPAL AND INDUSTRIAL WATER (Acre-feet)

Durango, Colorado	25,000
Southern Ute Indian Reservation	55,000
Ute Mountain Ute Indian Reservation	6,000
New Mexico ^{1/}	<u>37,400</u>
	123,400

IRRIGATION (Land and Water Supply)

	(Acres)	(Acre-feet)
Colorado		
Full Service	43,830	75,200
Supplemental Service	<u>20,100</u>	<u>18,600</u>
Total Colorado	63,930	93,800
New Mexico		
Full Service	5,630	14,400
Supplemental Service	<u>3,930</u>	<u>6,600</u>
Total New Mexico	9,560	21,000
Total	73,490	114,800

CRSP DEPLETION (Acre-feet)

Colorado		
M & I	75,600	
Irrigation	<u>74,500</u>	
	150,100	
New Mexico		
M & I	19,100	
Irrigation	<u>15,000</u>	
	34,100	
Project Total		184,200

^{1/} Farmington, Aztec, et. al.

CURRENT PLAN

PROJECT FACILITIES

COSTS (January 1975 Prices in Dollars)

<u>Multi-Purpose Facilities</u>	<u>Cost</u>
Ridges Basin Dam & Reservoir	22,128,000
Hay Gulch Dam & Reservoir.	18,983,000
Southern Ute Dam & Reservoir	16,243,000
Animas Powerplant	42,871,000
Durango Pumping Plant ^{1/}	25,200,000
Ridges Basin Pumping Plant	11,500,000
Sprinkler Pumping Plants	8,997,000
Ridges Basin Canal	19,650,000
New Mexico Irrigation Canal.	4,278,000
Lower Animas Canal	45,000,000
Dry Side Canal	7,779,000
Durango Trunkline.	4,327,000
La Plata Diversion Dam & Canal	765,000
Pipe Laterals	51,926,000
Drains	4,136,000
Permanent Operating Facilities	665,000
Recreation Development	1,583,000
Temporary Camp	<u>731,000</u>
Construction Cost286,762,000
Interest During Construction.	<u>.27,959,000</u>
Total Investment.314,721,000

1/ Includes cost of Canal from pumpstock outlet to Ridges Basin Reservoir.

ANNUAL EQUIVALENT COST

Amortized Investment (3 1/4%, 100 years)	10,663,800
Operation, Maintenance & Replacement	657,300
Reclamation (excluding power purchase)	345,000
Power Purchase	98,700
Recreation	368,400
CRSP Depletion	
TOTAL	12,133,200

AVERAGE ANNUAL BENEFITS

	<u>Indirect</u>	<u>Direct</u>	<u>Total</u>
Irrigation	2,956,300	6,569,500	9,525,800
Municipal and Industrial	0	5,812,900	5,812,900
Fish and Wildlife	0	77,800	77,800
Recreation	0	309,000	309,000
TOTAL	2,956,300	12,769,200	15,725,500

BENEFIT-COST ANALYSIS

	<u>Direct</u>	<u>Total</u>
Benefit-Cost Ratio	1.05:1.0	1.30:1.0
Net Annual Benefits	636,000	3,592,300

EFFECTS ON COLORADO RIVER AT IMPERIAL DAM

Estimated Stream Depletion (acre-feet)

184,200

Estimated Effect of Salt Loading (mg/l)

1.2

ANIMAS-LA PLATA PROJECT
Current Plan
Irrigation Service

Area	Full or Supplemental Service	Irrigation Method	Acres Served	Project Water Supply (acre-feet)	Canal or River Served From	
					Reservoir Served	From
La Plata, CO	S.S.	gravity	6,000	6,590	—	La Plata River
Red Mesa	S.S.	sprinkler	13,720	11,400	Ridges Basin	Ridges Basin Canal
	F.S.	sprinkler	7,180	10,990	Ridges Basin	Ridges Basin Canal
	S.S.	gravity	380	630	—	La Plata River
Dry Side 1/	F.S.	sprinkler	35,640	59,970	Ridges Basin and Hay Gulch	Dry Side Canal
McDermott Tunnel Ditch	F.S.	gravity	1,570	4,240	—	Lower Animas Canal
Tunnel Ditch	F.S.	sprinkler	1,170	2,790	Southern Ute	NM Irrig. Canal
Third Terrace	F.S.	sprinkler	2,310	5,510	Southern Ute	NM Irrig. Canal
La Plata, NM	S.S.	gravity	3,930	6,600	Partially from Southern Ute & La Plata River	NM Irrig. Canal & La Plata River
	F.S.	gravity	1,590	5,140	Partially from Southern Ute & La Plata River	NM Irrig. Canal & La Plata River

1/ 560 acres of the 35,640 acres are located in New Mexico.

RECREATION

	RESERVOIR		
	Ridges Basin	Hay Gulch	Southern Ute
Normal High Water			
Surface Area (acres)	2,230	620	1,739
Elevation (ft. above M.S.L.)	6,960	7,220	6,281
Minimum			
Surface Area (acres)	1,718	120	615
Elevation (ft. above M.S.L.)	6,904	7,097	6,226
Average Pool			
Surface Area (acres)	1,984	384	1,337
Elevation (ft. above M.S.L.)	6,934	7,171	6,263
Estimated Annual Visitors	165,000	20,000	20,000
Annual Recreation Value (Dollars)	245,500	32,000	32,000

PROJECT FEATURES

RESERVOIRS

Total Capacity (acre-feet)	280,500	46,100	80,000
Active Capacity (acre-feet)	130,000	42,000	65,000
Inactive Capacity (acre-feet)	150,500	4,100	15,000
Normal Water Surface Elev. (ft. above M.S.L.)	6,960	7,220	6,281
Surface Area (acres)	2,230	620	1,739

DAMS

Height above Streambed (ft)	307	179	145
Crest Length (ft)	1,500	2,800	5,600
Crest Width (ft)	30	30	30
Type	Earth	Earth	Earth

PROJECT FEATURES (Cont.)

DIVERSION DAMS

La Plata

Capacity (Second-feet)
300

CANALS

	Length (miles)	Initial Capacity (Second-feet)
Lower Animas	19.0	550
New Mexico Irrigation	14.7	105
Ridges Basin	17.7	350
Dry Side	17.1	390
Laterals	151.0	Varies
Drains	65.0	Varies

PUMPING PLANTS

	Max. Capacity (Second-feet)	Maximum Dynamic Head (feet)	Installed Capacity (Kilowatts)	Energy Required (KW hours)
Durango	500	610	30,000	96,825,000
Ridges Basin	350	330	13,000	36,667,000
Sprinkler	vary	vary	8,000	13,629,000

POWERPLANT

	Max. Capacity (Second-feet)	Total Dynamic Head (feet)	Installed Capacity (Kilowatts)	Energy Produced (KW hours)
Animas	1,750	330	39,100	88,500,000

POWER PURCHASE

	Capacity (KW-mo)	Energy (KW hrs.)
	83,700	58,621,000

June 17, 1975

Animas-La Plata Project,
Preliminary Population Projections

Location	1940	1950	1960	1970	1980	1990	2000	2010	2020	2030
San Juan Co., N. Mex.	17,115	18,292	53,306	52,517	100,000	133,000	140,000	156,000	173,000	190,000
La Plata Co. Co.	15,494	14,880	19,225	19,199	22,000	30,000	33,500	37,500	41,000	45,000
Durango, Co.	5,887	7,459	10,530	10,333	12,500	15,000	17,000	19,000	21,750	25,000
Durango M&I Service Area	8,463	9,495	14,547	14,167	18,500	24,000	27,500	31,000	34,500	38,000

Projections are preliminary, made by the USBR, Western Colorado Projects Office, Durango, Colorado for Animas-La Plata Project Advance Planning. The projections include the impacts of construction of the Animas-La Plata Project.

ANIMAS POWERPLANT OPERATION
(HEAD = 330.0)

	FISH FLOW AT ROCK- WOOD	FISH DIVER- SION AND BYPASS	FLOW THRU PLANT 1750. CFS	KILLED ANIMAS	DIVERTED ANIMAS IN CANAL	RIVER AFTER ANIMAS PROJECT
				S.	CFS 550. CFS *	

1949	543.0	150.5	392.5	1065	72.4	579.0
1950	314.1	36.6	277.5	159	83.0	251.5
1951	282.9	36.6	246.3	661	83.2	193.1
1952	598.1	182.2	415.9	1123	102.9	576.8
1953	315.4	45.6	269.8	737	72.8	230.9
1954	321.1	36.6	284.5	774	74.8	200.0
1955	300.7	36.6	264.1	119	88.5	219.5
1956	292.7	36.6	256.1	696	79.9	203.3
1957	676.7	236.4	440.3	1198	107.8	517.6
1958	569.6	186.7	382.9	1035	65.6	559.2
1959	259.7	36.6	223.1	604	80.9	174.1
1960	423.1	74.5	348.6	948	83.7	323.6
1961	386.5	36.6	350.0	946	82.8	286.5
1962	466.2	61.3	404.9	1095	94.3	391.0
1963	283.9	36.6	247.3	664	61.5	238.2
1964	275.4	36.6	238.8	645	79.1	214.7
1965	667.5	156.9	510.6	1381	123.0	485.6
TOTAL	6976.7	1423.7	5553.0	15021	1436.1	5644.6

RIDGE'S BASIN RE COLO.

* REMAIN-
* TING

* FLOW AT
* LAPLATA
* DIVERS.

INFLOW FROM DURANGO M+I * IN
ANIMAS RIVER DEMAND FROM * P
PUMPS CANAL *

IRRIG. * DAM
SHORT- *
AGE *

1949	128.5	25.0	20.2	69	6	.9	36.0
1950	63.9	25.0	16.1	14	6	5.9	12.7
1951	45.1	25.0	6.3	55	7	4.8	10.4
1952	140.3	25.0	15.9	15	6	2.9	44.2
1953	85.7	25.0	11.0	99	9	4.5	14.6
1954	111.4	25.0	16.2	26	9	5.6	12.4
1955	77.9	25.0	9.5	62	3	4.2	10.6
1956	89.6	25.0	9.5	6	1	6.4	13.9
1957	208.6	25.0	22.4	59	6	4.6	43.5
1958	99.5	25.0	20.2	50	0	4.5	34.5
1959	77.4	25.0	12.8	57	1	7.4	8.7
1960	138.8	25.0	17.6	18	0	5.5	28.0
1961	124.6	25.0	16.4	14	7	4.8	20.7
1962	100.8	25.0	18.8	56	5	5.0	17.7
1963	72.4	25.0	14.7	18	4	6.1	13.0
1964	60.5	25.0	6.3	12	1	4.4	13.3
1965	199.6	25.0	22.4	2	3	0.0	36.4
TOTAL	1824.6	425.0	256.3	159	9	73.6	370.6

RED MESA AREA, COLO.

	IRRIG. DEMAND ACRES	IRRIG. SUPPLY ACRES	IRRIG. SHORTAGE ACRES	DEMAN DRYS AC	EOM CONTENT	IRRIG. DRYSIDE ACRES	IRRIG. SHORTAGE ACRES
12	1949	33.6	33.6	0.0	6	375.7	0.0
13	1950	33.6	33.6	0.0	6	262.7	0.0
14	1951	33.6	33.6	0.0	6	137.7	12.8
15	1952	33.6	33.6	0.0	6	266.0	0.0
16	1953	33.6	33.6	0.0	6	231.0	0.0
17	1954	33.6	30.7	2.9	6	133.8	12.8
18	1955	33.6	33.6	0.0	6	97.7	12.8
19	1956	33.6	30.7	2.9	6	88.1	12.8
20	1957	33.6	33.6	0.0	6	189.2	0.0
21	1958	33.6	33.6	0.0	6	285.1	0.0
22	1959	33.6	33.6	0.0	6	225.2	12.8
23	1960	33.6	33.6	0.0	6	241.1	0.0
24	1961	33.6	33.6	0.0	6	178.6	0.0
25	1962	33.6	33.6	0.0	6	160.7	12.8
26	1963	33.6	33.6	0.0	6	157.1	12.8
27	1964	33.6	33.6	0.0	6	134.3	12.8
28	1965	33.6	33.6	0.0	6	200.8	0.0
30	TOTAL	571.2	565.4	5.8	109	3364.9	102.2

LAPLATA INTERV.

TOTAL

	FLOW FROM DIVERS. DAM	FLOW AT STATE LINE	USE- ABLE RETURN FLOW	FLOW BELLOW LONG HOLLOW	TOTAL
1949	10.8	20.8	12.5	44.1	
1950	0.0	1.1	12.5	13.6	
1951	0.0	1.1	12.5	13.6	
1952	1.0	23.6	12.5	37.1	
1953	0.0	2.5	12.5	15.0	
1954	0.0	1.2	12.5	13.7	
1955	0.0	2.7	12.5	15.2	
1956	0.0	1.2	12.5	13.7	
1957	4.8	24.1	12.5	41.4	
1958	1.1	18.7	12.5	32.3	
1959	0.0	0.0	12.5	12.5	
1960	0.0	14.1	12.5	26.6	
1961	0.0	9.2	12.5	21.7	
1962	0.0	6.4	12.5	18.9	
1963	0.0	1.1	12.5	13.6	
1964	0.0	3.4	12.5	15.9	
1965	0.0	21.3	12.5	33.8	
TOTAL	17.9	152.5	212.5	382.9	

THIRD TUNNEL

ERRACE DITCH TOTAL

	SPRKL FROM	SPRKL FROM	SPRKL FROM
1949	5.8	2.9	8.7
1950	5.8	2.9	8.7
1951	5.8	2.9	8.7
1952	5.8	2.9	8.7
1953	5.8	2.9	8.7
1954	5.8	2.9	8.7
1955	5.8	2.9	8.7
1956	5.8	2.9	8.7
1957	5.8	2.9	8.7
1958	5.8	2.9	8.7
1959	5.8	2.9	8.7
1960	5.8	2.9	8.7
1961	5.8	2.9	8.7
1962	5.8	2.9	8.7
1963	5.8	2.9	8.7
1964	5.8	2.9	8.7
1965	5.8	2.9	8.7
TOTAL	98.6	49.3	147.9

LAPLATA, N.M. AREA

OPERATION

TOTAL	IRRIG. DEMAND FROM	IRRIG. SUPPLY FROM	IRRIG. SHORT- AGE	L	EVAP- ORATION FASE	EOM CONTENT
	RES.	RES.				
1949	9.0	9.0	0.0	0	6.2	598.6
1950	16.8	16.8	0.0	0	5.8	504.1
1951	16.8	16.6	.2	0	5.1	408.7
1952	10.6	10.6	0.0	0	6.1	578.2
1953	16.7	16.7	0.0	0	5.7	515.2
1954	17.0	16.5	.5	0	5.1	395.1
1955	16.2	14.8	1.4	0	4.3	296.7
1956	16.9	15.8	1.1	0	4.5	306.0
1957	9.0	8.5	.5	0	5.0	464.9
1958	9.2	9.2	0.0	0	6.0	538.0
1959	17.8	17.3	.5	0	5.1	412.0
1960	9.8	9.8	0.0	0	5.7	481.5
1961	12.0	11.8	.2	0	5.5	463.7
1962	13.5	13.5	0.0	0	6.0	547.8
1963	16.8	14.8	2.0	0	5.0	362.7
1964	15.5	10.7	4.8	0	3.9	224.6
1965	9.0	8.8	.2	0	5.6	549.5
TOTAL	232.6	221.2	11.4	0	90.5	7647.2

RIDGES BASIN RESERVOIR
AREA-CAPACITY TABLE

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6665	0	0	6701	126	2166
6666	3	2	6702	130	2294
6667	7	7	6703	134	2426
6668	10	15	6704	138	2562
6669	13	27	6705	142	2702
6670	17	42	6706	146	2847
6671	20	60	6707	151	2995
6672	23	82	6708	155	3148
6673	27	107	6709	159	3305
6674	30	135	6710	164	3467
6675	33	167	6711	168	3633
6676	37	202	6712	173	3804
6677	40	240	6713	178	3979
6678	43	282	6714	182	4159
6679	47	327	6715	187	4344
6680	50	375	6716	192	4534
6681	53	426	6717	197	4728
6682	56	481	6718	202	4928
6683	59	538	6719	207	5132
6684	62	598	6720	212	5341
6685	65	662	6721	217	5556
6686	68	728	6722	222	5775
6687	72	798	6723	227	5999
6688	75	872	6724	232	6229
6689	78	948	6725	237	6463
6690	82	1029	6726	242	6703
6691	86	1113	6727	247	6947
6692	89	1200	6728	253	7197
6693	93	1291	6729	258	7452
6694	97	1387	6730	263	7713
6695	101	1486	6731	269	7979
6696	105	1589	6732	274	8250
6697	109	1696	6733	280	8527
6698	113	1807	6734	285	8810
6699	118	1923	6735	291	9098
6700	122	2042	6736	297	9392
			6737	302	9691
			6738	308	9996
			6739	314	10308
			6740	320	10625

RIDGES BASIN RESERVOIR
AREA-CAPACITY TABLE

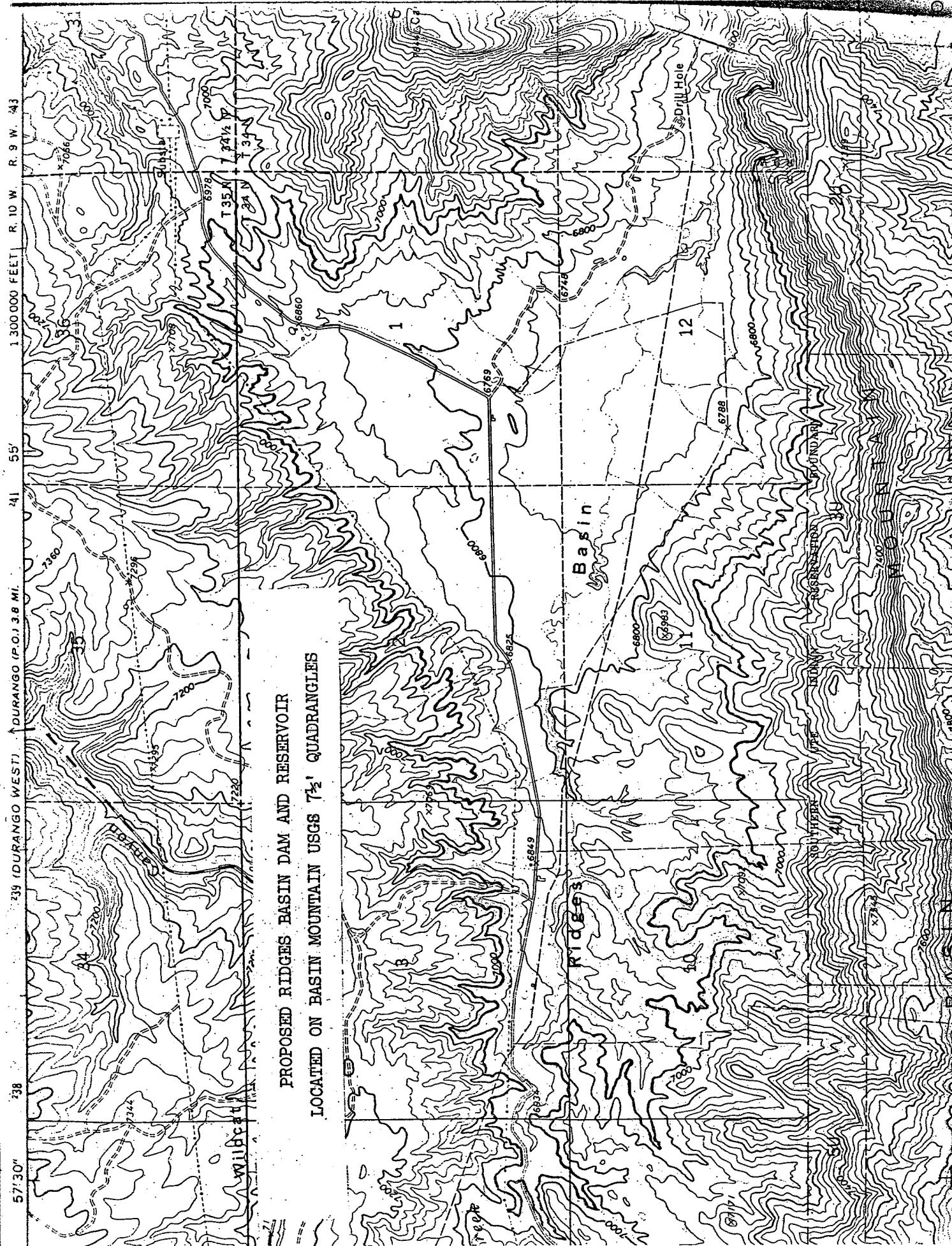
ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6741	326	10948	6781	598	29250
6742	332	11277	6782	605	29851
6743	338	11612	6783	613	30460
6744	344	11953	6784	620	31077
6745	350	12300	6785	628	31701
6746	357	12654	6786	636	32333
6747	363	13013	6787	644	32973
6748	369	13380	6788	652	33621
6749	376	13752	6789	660	34277
6750	382	14131	6790	668	34940
6751	389	14517	6791	676	35612
6752	395	14909	6792	684	36292
6753	402	15307	6793	692	36979
6754	409	15713	6794	700	37675
6755	415	16125	6795	708	38379
6756	422	16544	6796	716	39092
6757	429	16969	6797	725	39812
6758	436	17402	6798	733	40541
6759	443	17841	6799	742	41279
6760	450	18288	6800	750	42024
6761	457	18741	6801	759	42779
6762	463	19201	6802	767	43542
6763	470	19667	6803	776	44313
6764	476	20141	6804	784	45093
6765	483	20620	6805	793	45882
6766	490	21107	6806	802	46680
6767	497	21600	6807	811	47486
6768	504	22101	6808	820	48301
6769	511	22608	6809	829	49125
6770	518	23122	6810	838	49958
6771	525	23643	6811	847	50800
6772	532	24171	6812	856	51652
6773	539	24707	6813	865	52512
6774	546	25249	6814	874	53381
6775	553	25799	6815	883	54260
6776	560	26356	6816	892	55148
6777	568	26920	6817	902	56045
6778	575	27491	6818	911	56951
6779	583	28070	6819	921	57867
6780	590	28656	6820	930	58792

RIDGES BASIN RESERVOIR
AREA-CAPACITY TABLE

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6821	939	59727	6861	1324	104806
6822	948	60670	6862	1333	106135
6823	957	61622	6863	1342	107472
6824	966	62583	6864	1351	108819
6825	975	63554	6865	1360	110174
6826	984	64533	6866	1369	111539
6827	993	65521	6867	1378	112913
6828	1002	66519	6868	1388	114296
6829	1011	67525	6869	1397	115688
6830	1020	68541	6870	1406	117089
6831	1030	69566	6871	1415	118500
6832	1039	70600	6872	1425	119920
6833	1048	71644	6873	1434	121349
6834	1058	72697	6874	1443	122788
6835	1067	73759	6875	1453	124236
6836	1077	74831	6876	1462	125693
6837	1086	75913	6877	1471	127160
6838	1096	77004	6878	1481	128636
6839	1105	78104	6879	1490	130122
6840	1115	79214	6880	1500	131617
6841	1125	80334	6881	1509	133121
6842	1134	81464	6882	1518	134635
6843	1144	82603	6883	1527	136157
6844	1154	83752	6884	1536	137689
6845	1163	84910	6885	1545	139230
6846	1173	86079	6886	1554	140779
6847	1183	87257	6887	1564	142338
6848	1193	88445	6888	1573	143906
6849	1203	89643	6889	1582	145484
6850	1213	90851	6890	1591	147070
6851	1223	92069	6891	1600	148666
6852	1233	93297	6892	1610	150271
6853	1243	94535	6893	1619	151886
6854	1253	95783	6894	1628	153509
6855	1263	97041	6895	1638	155142
6856	1274	98310	6896	1647	156785
6857	1284	99589	6897	1657	158437
6858	1294	100878	6898	1666	160098
6859	1305	102177	6899	1675	161769
6860	1315	103487	6900	1685	163449

RIDGES BASIN RESERVOIR
AREA-CAPACITY TABLE

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6901	1693	165138	6941	2049	239815
6902	1702	166836	6942	2059	241869
6903	1710	168541	6943	2068	243933
6904	1718	170255	6944	2077	246005
6905	1727	171978	6945	2087	248087
6906	1735	173709	6946	2096	250179
6907	1744	175448	6947	2106	252279
6908	1752	177196	6948	2115	254390
6909	1760	178952	6949	2124	256509
6910	1769	180717	6950	2134	258639
6911	1777	182490	6951	2143	260777
6912	1786	184272	6952	2153	262926
6913	1795	186062	6953	2163	265083
6914	1803	187861	6954	2172	267251
6915	1812	189669	6955	2182	269428
6916	1820	191485	6956	2191	271614
6917	1829	193309	6957	2201	273810
6918	1838	195143	6958	2211	276016
6919	1846	196985	6959	2220	278231
6920	1855	198835	6960	2230	280457
6921	1864	200695			
6922	1873	202563			
6923	1882	204441			
6924	1891	206328			
6925	1900	208224			
6926	1910	210129			
6927	1919	212043			
6928	1928	213966			
6929	1937	215899			
6930	1946	217841			
6931	1956	219792			
6932	1965	221752			
6933	1974	223721			
6934	1984	225700			
6935	1993	227689			
6936	2002	229686			
6937	2012	231693			
6938	2021	233710			
6939	2031	235735			
6940	2040	237771			



AREA-CAPACITY TABLE
HAY GULCH RESERVOIR

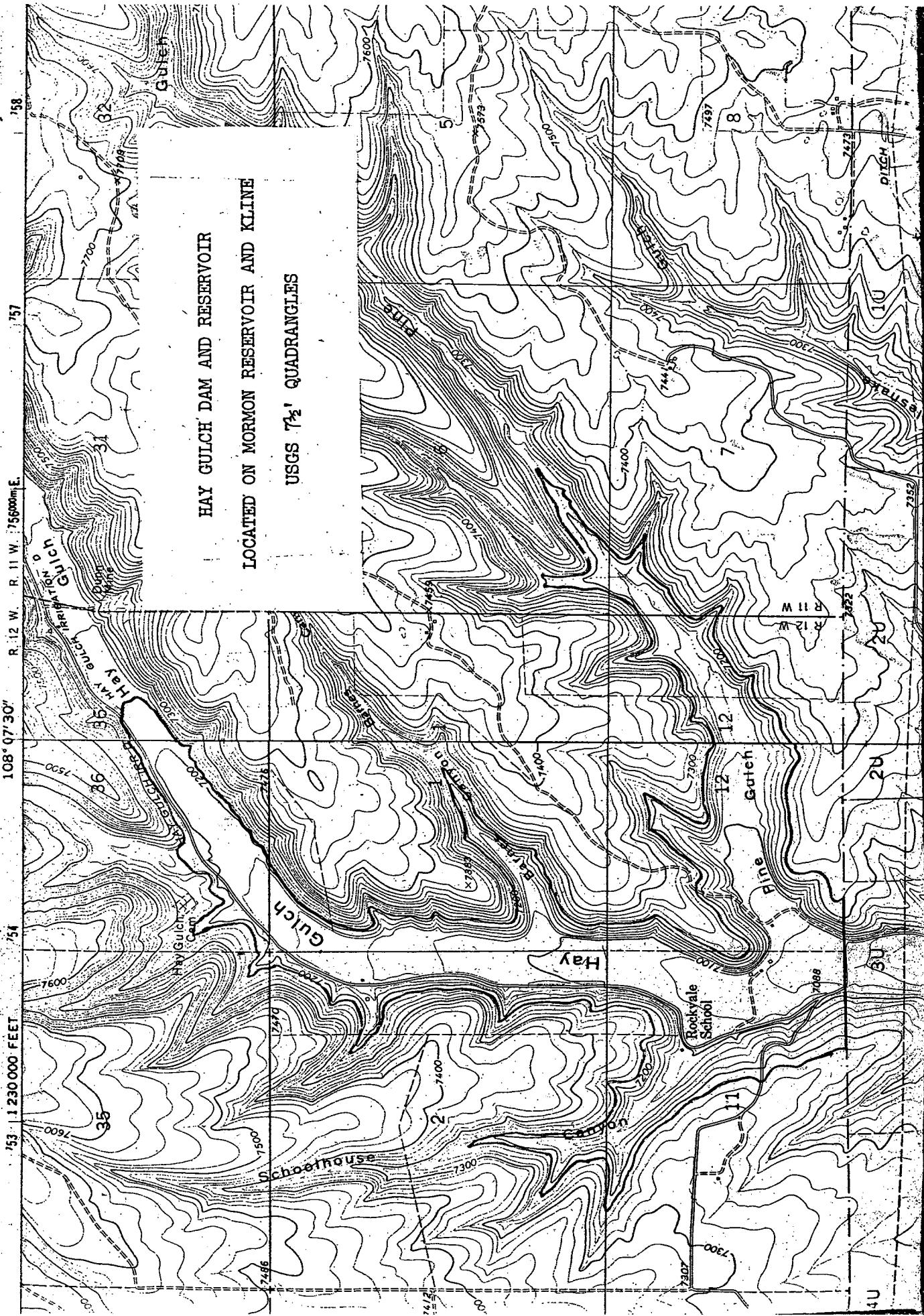
ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
7047	0	0	7096	115	2254
7048	1	0	7097	119	2371
7049	2	2	7098	122	2491
7050	2	4	7099	126	2615
7051	3	7	7100	130	2743
7052	4	10	7101	133	2875
7053	5	15	7102	136	3009
7054	6	21	7103	139	3146
7055	7	27	7104	142	3287
7056	9	35	7105	145	3430
7057	10	44	7106	148	3577
7058	11	55	7107	152	3727
7059	13	67	7108	155	3880
7060	15	81	7109	158	4037
7061	16	96	7110	161	4196
7062	18	114	7111	165	4360
7063	20	133	7112	168	4526
7064	22	154	7113	172	4696
7065	24	178	7114	175	4869
7066	27	203	7115	179	5046
7067	29	231	7116	182	5226
7068	32	261	7117	186	5410
7069	34	294	7118	189	5597
7070	37	330	7119	193	5788
7071	40	368	7120	196	5983
7072	42	409	7121	200	6181
7073	45	453	7122	204	6383
7074	48	499	7123	208	6589
7075	52	549	7124	211	6799
7076	54	602	7125	215	7012
7077	57	658	7126	219	7229
7078	59	715	7127	222	7449
7079	62	776	7128	225	7673
7080	64	839	7129	228	7899
7081	67	905	7130	232	8129
7082	70	973	7131	235	8363
7083	73	1045	7132	238	8599
7084	76	1119	7133	242	8840
7085	79	1196	7134	245	9083
7086	82	1276	7135	249	9330
7087	85	1359	7136	252	9580
7088	88	1445	7137	256	9834
7089	91	1535	7138	259	10092
7090	94	1628	7139	263	10353
7091	98	1723	7140	266	10617
7092	101	1823	7141	270	10885
7093	104	1925	7142	273	11157
7094	108	2031	7143	277	11432
7095	111	2141			

AREA-CAPACITY TABLE
HAY GULCH RESERVOIR

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
7144	281	11711	7191	481	29274
7145	284	11993	7192	486	29758
7146	288	12280	7193	492	30247
7147	292	12570	7194	497	30741
7148	296	12863	7195	502	31241
7149	299	13161	7196	508	31745
7150	303	13462	7197	513	32256
7151	307	13767	7198	518	32771
7152	310	14076	7199	524	33293
7153	314	14388	7200	529	33819
7154	318	14704	7201	535	34351
7155	322	15024	7202	540	34889
7156	325	15347	7203	545	35431
7157	329	15675	7204	551	35979
7158	333	16006	7205	556	36532
7159	337	16341	7206	561	37091
7160	341	16679	7207	567	37655
7161	344	17022	7208	572	38225
7162	348	17368	7209	578	38800
7163	352	17718	7210	583	39380
7164	356	18072	7211	589	39966
7165	360	18430	7212	594	40558
7166	364	18792	7213	600	41155
7167	368	19158	7214	605	41757
7168	372	19528	7215	611	42366
7169	376	19902	7216	617	42980
7170	380	20280	7217	622	43599
7171	384	20662	7218	628	44224
7172	388	21048	7219	634	44855
7173	392	21439	7220	640	45492
7174	396	21833	7221	645	46135
7175	401	22232	7222	651	46783
7176	405	22635	7223	657	47437
7177	410	23042	7224	663	48097
7178	415	23455	7225	669	48763
7179	420	23873	7226	675	49435
7180	425	24295	7227	681	50113
7181	430	24722	7228	687	50797
7182	435	25155	7229	693	51487
7183	440	25592	7230	700	52184
7184	445	26035	7231	706	52886
7185	450	26482	7232	712	53595
7186	455	26935	7233	718	54311
7187	460	27392	7234	725	55032
7188	465	27855	7235	731	55760
7189	471	28323	7236	737	56494
7190	476	28796	7237	744	57235

AREA-CAPACITY TABLE
HAY GULCH RESERVOIR

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
7238	750	57982	7276	1006	91299
7239	757	58736	7277	1012	92309
7240	763	59496	7278	1019	93324
7241	770	60262	7279	1025	94346
7242	776	61035	7280	1031	95374
7243	783	61815	7281	1037	96408
7244	790	62601	7282	1044	97448
7245	796	63394	7283	1050	98495
7246	803	64193	7284	1056	99548
7247	809	64999	7285	1062	100607
7248	816	65812	7286	1069	101673
7249	823	66632	7287	1075	102745
7250	830	67458	7288	1082	103823
7251	836	68291	7289	1088	104908
7252	843	69131	7290	1094	105999
7253	849	69977	7291	1101	107097
7254	856	70829	7292	1107	108201
7255	862	71688	7293	1114	109311
7256	869	72554	7294	1120	110428
7257	876	73427	7295	1127	111552
7258	882	74306	7296	1133	112682
7259	889	75192	7297	1140	113819
7260	896	76084	7298	1146	114962
7261	903	76983	7299	1153	116112
7262	909	77889	7300	1160	117268
7263	916	78802			
7264	923	79722			
7265	930	80649			
7266	937	81582			
7267	944	82522			
7268	951	83470			
7269	958	84424			
7270	965	85385			
7271	972	86353			
7272	979	87328			
7273	986	88311			
7274	993	89300			
7275	1000	90296			



HAY GULCH DAM AND RESERVOIR
LOCATED ON MORMON RESERVOIR AND KLINE
USGS 7½' QUADRANGLES

OSE-1002

1

AREA-CAPACITY TABLE
SOUTHERN UTE RESERVOIR

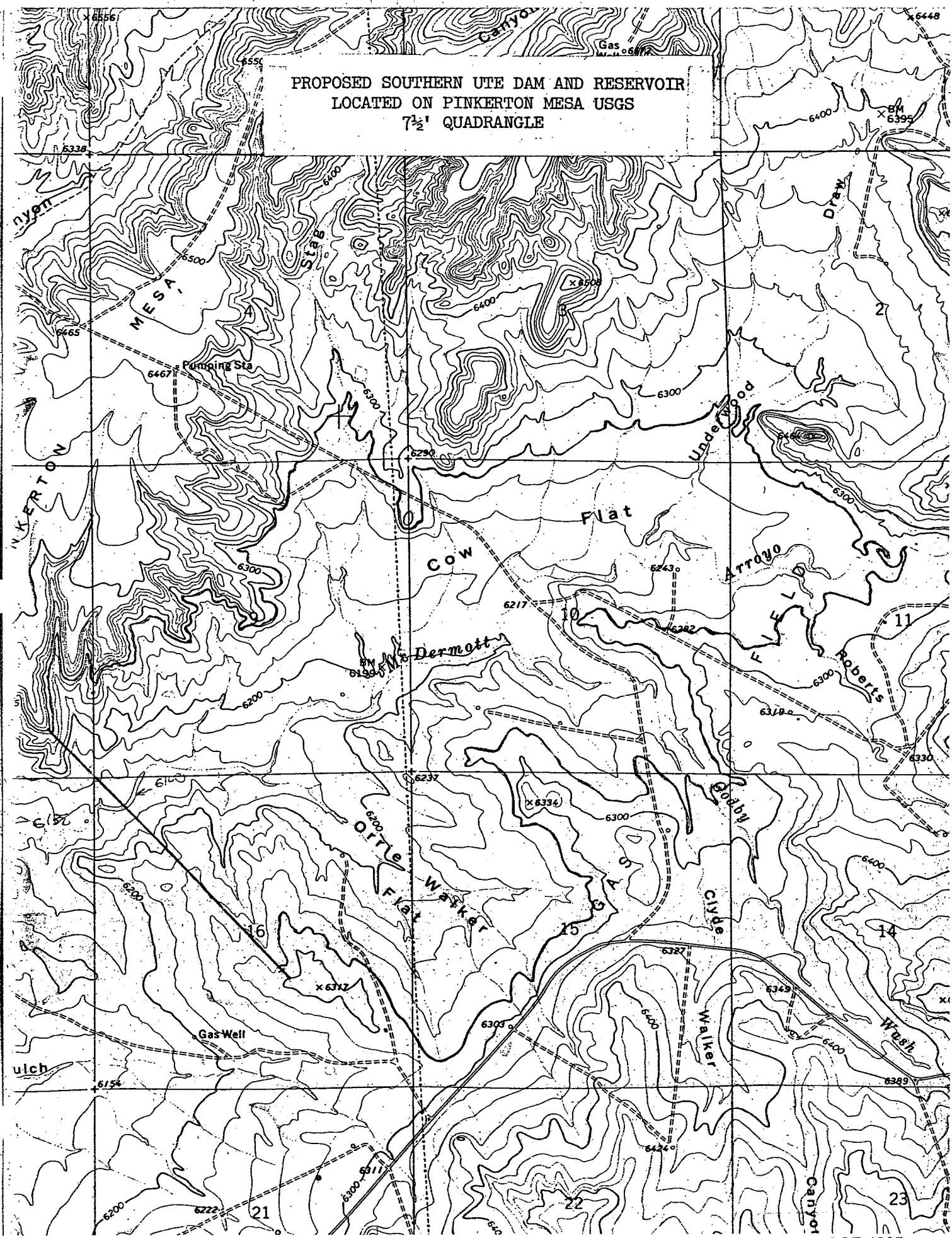
ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6140	0	0	6181	122	1901
6141	2	1	6182	128	2025
6142	4	4	6183	134	2156
6143	5	8	6184	140	2294
6144	7	14	6185	147	2437
6145	9	22	6186	153	2587
6146	11	32	6187	160	2744
6147	12	43	6188	167	2908
6148	14	56	6189	174	3078
6149	16	71	6190	181	3256
6150	18	88	6191	189	3441
6151	19	106	6192	196	3633
6152	21	126	6193	204	3833
6153	23	148	6194	211	4041
6154	25	172	6195	219	4256
6155	26	197	6196	227	4479
6156	28	224	6197	236	4711
6157	30	253	6198	244	4950
6158	32	284	6199	252	5199
6159	33	316	6200	261	5455
6160	35	350	6201	272	5722
6161	38	386	6202	283	5999
6162	41	426	6203	294	6288
6163	44	468	6204	306	6588
6164	47	514	6205	317	6899
6165	51	563	6206	329	7223
6166	54	616	6207	342	7558
6167	58	672	6208	354	7906
6168	62	732	6209	367	8266
6169	66	796	6210	379	8639
6170	70	863	6211	393	9025
6171	74	935	6212	406	9424
6172	78	1011	6213	419	9837
6173	82	1091	6214	433	10263
6174	87	1175	6215	447	10703
6175	91	1264	6216	461	11157
6176	96	1358	6217	476	11625
6177	101	1457	6218	490	12108
6178	106	1560	6219	505	12606
6179	111	1668	6220	520	13118
6180	116	1782			

AREA-CAPACITY TABLE
SOUTHERN UTE RESERVOIR

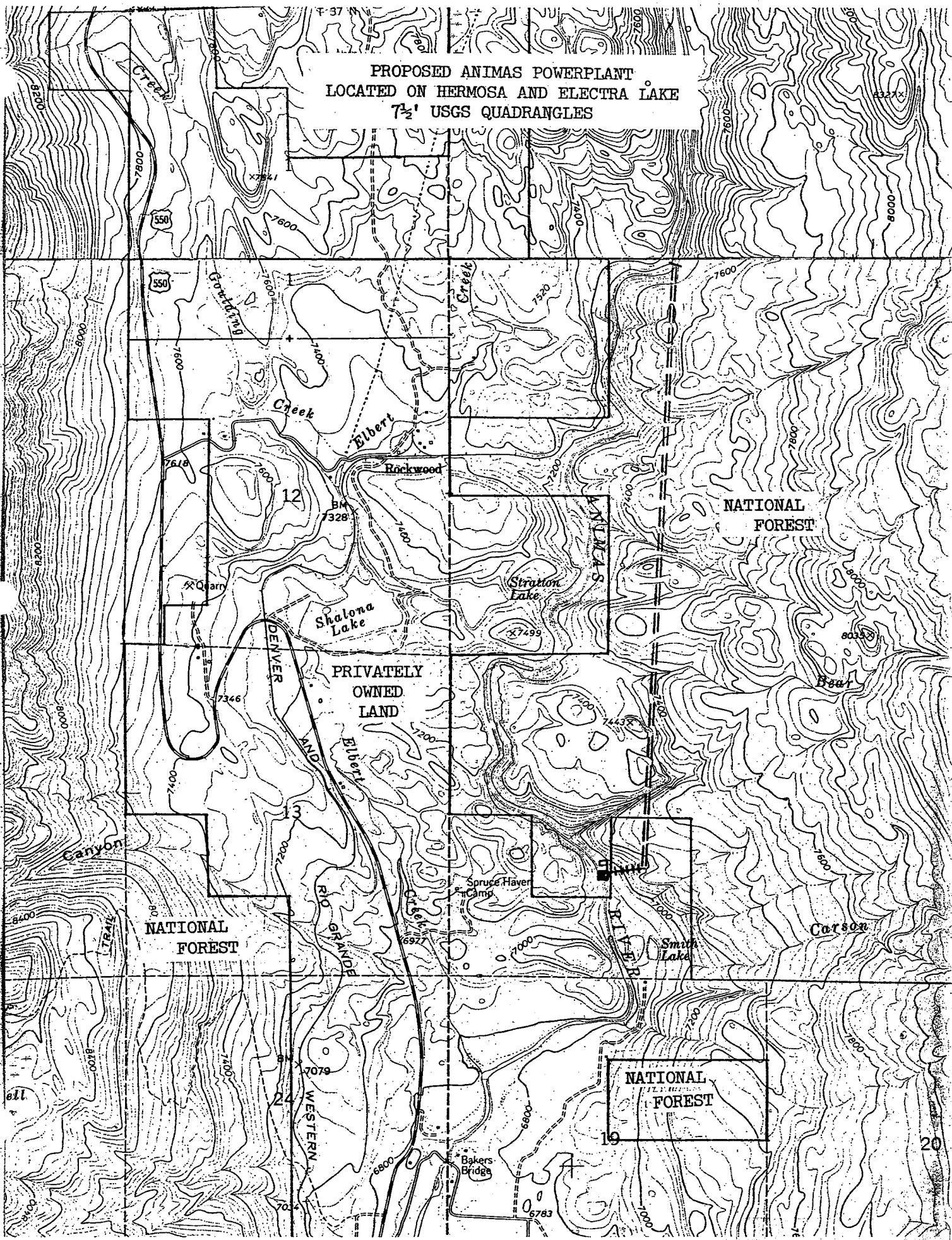
2

ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)	ELEVATION (FEET)	AREA (ACRES)	CAPACITY (AF)
6221	535	13646	6261	1296	49417
6222	551	14189	6262	1316	50722
6223	566	14747	6263	1337	52049
6224	582	15322	6264	1358	53397
6225	598	15912	6265	1380	54766
6226	615	16519	6266	1401	56156
6227	631	17142	6267	1423	57568
6228	648	17782	6268	1444	59001
6229	665	18439	6269	1466	60457
6230	682	19112	6270	1488	61934
6231	700	19804	6271	1510	63433
6232	718	20512	6272	1533	64955
6233	736	21239	6273	1555	66499
6234	754	21984	6274	1578	68066
6235	772	22746	6275	1601	69656
6236	791	23528	6276	1624	71268
6237	809	24328	6277	1647	72904
6238	828	25146	6278	1671	74563
6239	848	25984	6279	1694	76245
6240	867	26842	6280	1718	77952
6241	886	27718	6281	1739	79680
6242	904	28613	6282	1760	81429
6243	923	29527	6283	1781	83200
6244	942	30459	6284	1802	84991
6245	962	31411	6285	1823	86804
6246	981	32383	6286	1845	88638
6247	1001	33374	6287	1866	90493
6248	1021	34385	6288	1888	92370
6249	1041	35415	6289	1910	94269
6250	1061	36466	6290	1932	96190
6251	1082	37538	6291	1954	98133
6252	1102	38630	6292	1976	100098
6253	1123	39743	6293	1998	102085
6254	1144	40877	6294	2021	104094
6255	1166	42032	6295	2043	106126
6256	1187	43208	6296	2066	108181
6257	1209	44406	6297	2089	110258
6258	1231	45626	6298	2112	112359
6259	1253	46867	6299	2135	114482
6260	1275	48131	6300	2158	116628

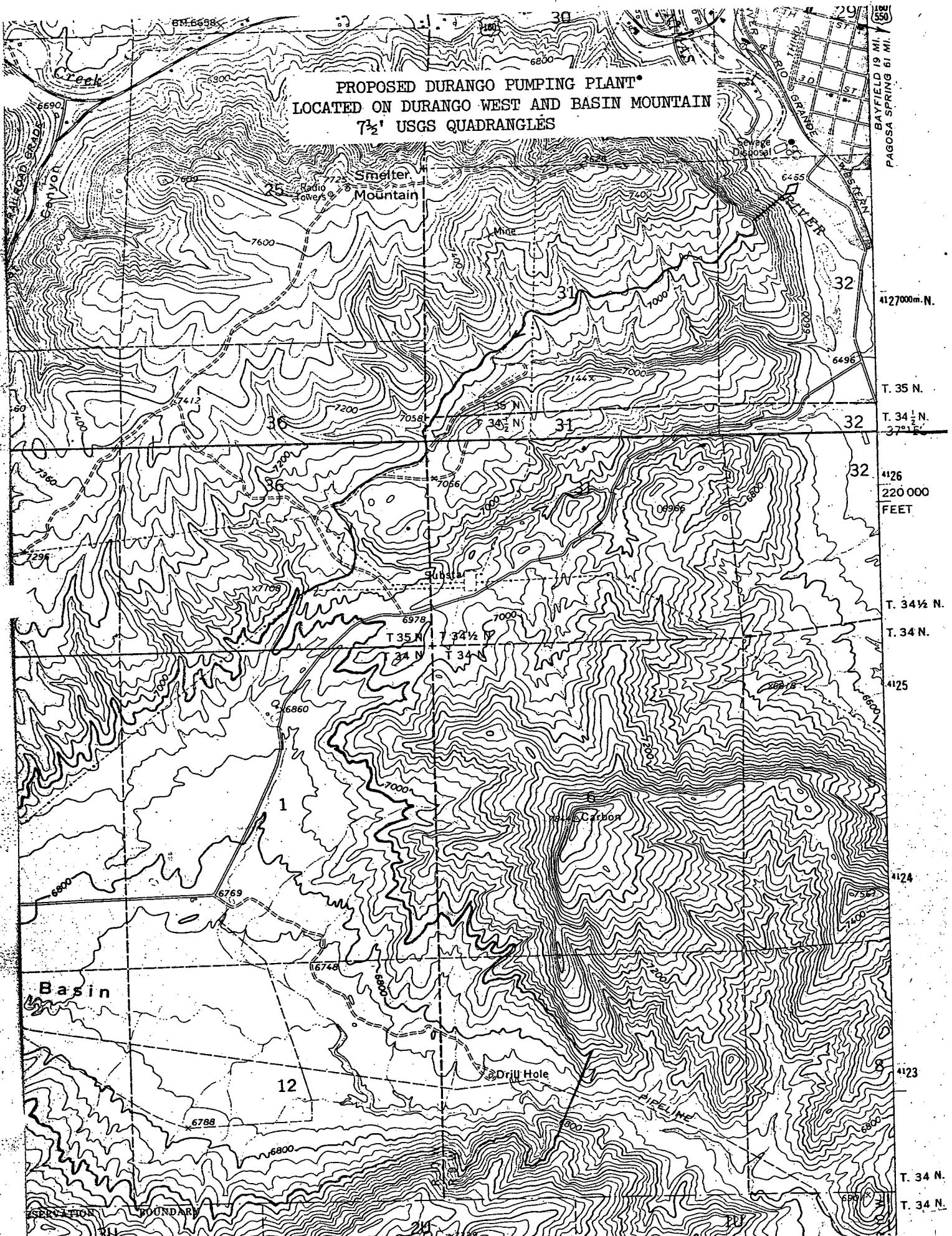
PROPOSED SOUTHERN UTE DAM AND RESERVOIR
LOCATED ON PINKERTON MESA USGS
 $7\frac{1}{2}'$ QUADRANGLE



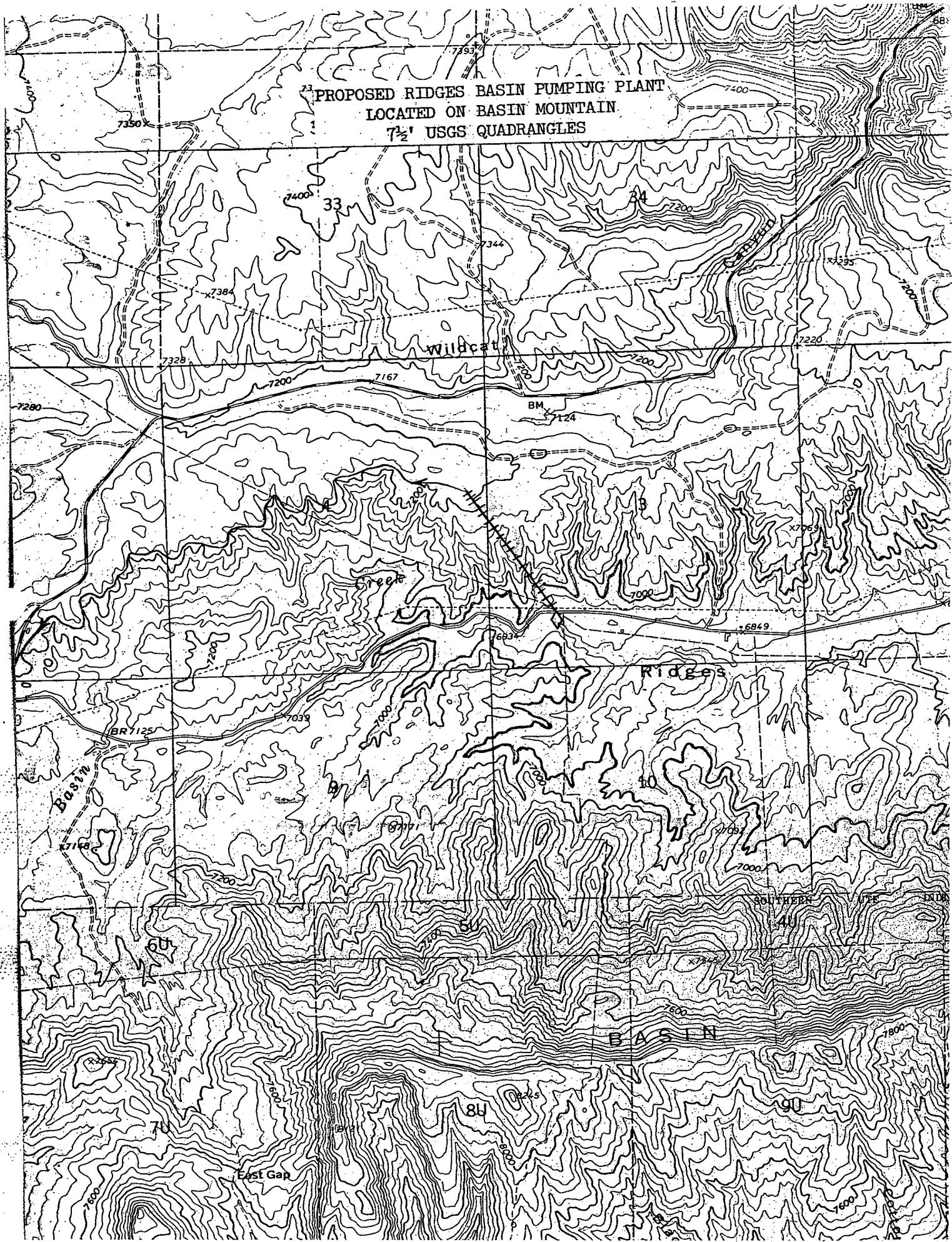
PROPOSED ANIMAS POWERPLANT
LOCATED ON HERMOSA AND ELECTRA LAKE
 $7\frac{1}{2}'$ USGS QUADRANGLES



PROPOSED DURANGO PUMPING PLANT*
LOCATED ON DURANGO WEST AND BASIN MOUNTAIN
 $7\frac{1}{2}'$ USGS QUADRANGLES



PROPOSED RIDGES BASIN PUMPING PLANT
LOCATED ON BASIN MOUNTAIN
7½' USGS QUADRANGLES



ADDENDUM

ANIMAS-LA PLATA PROJECT

	<u>PLAN AT AUTHORIZATION</u>	<u>CURRENT PLAN</u>
<u>M&I WATER (ACRE-FEET) 1/</u>		
DURANGO, COLORADO	9,200	25,000
SOUTHERN UTE INDIAN	30,000	55,000
UTE MOUNTAIN UTE INDIAN	23,500	6,000
NEW MEXICO 2/	13,500	37,400
TOTAL	<u>76,200</u>	<u>123,400</u>
<u>IRRIGATION</u>		
<u>METHOD</u>	<u>GRAVITY (ACRES)</u>	<u>SPRINKLER (ACRES)</u>
COLORADO	<u>(AC-FT)</u>	<u>(AC-FT)</u>
FULL SERVICE		
NON-INDIAN	29,500	83,800
SOUTHERN UTE	600	1,400
UTE MOUNTAIN UTE	5,220	15,600
SUPPLEMENTAL SERVICE		
NON-INDIAN	20,100	34,400
FLORIDA EXCHANGE	--	3,700
TOTAL COLORADO	<u>55,420</u>	<u>138,900</u>
NEW MEXICO		
FULL SERVICE		
NON-INDIAN	9,500	34,200
UTE MOUNTAIN UTE	1,700	6,200
SUPPLEMENTAL SERVICE		
NON-INDIAN	5,500	9,600
TOTAL NEW MEXICO	<u>16,700</u>	<u>50,000</u>
PROJECT TOTAL	<u>72,120</u>	<u>188,900</u>
CRSP DEPLETION (ACRE-FEET)		
COLORADO		
M&I	37,100	75,600
IRRIGATION	75,200	74,500
TOTAL COLORADO	<u>112,300</u>	<u>150,100</u>
NEW MEXICO		
M&I	6,200	19,100
IRRIGATION	27,900	15,000
TOTAL NEW MEXICO	<u>34,100</u>	<u>34,100</u>
PROJECT TOTAL	<u>146,400</u>	<u>184,200</u>
CONSTRUCTION COST (JAN 1975)	<u>\$202,627,000</u>	<u>\$286,762,000</u>

- 1/ MUNICIPAL AND INDUSTRIAL WATER
 2/ FARMINGTON, AZTEC, ET. AL.
 3/ A PORTION WOULD BE GRAVITY SERVED

ANIMAS-LA PLATA PROJECT
NEW MEXICO PORTION

	PROJECT LAND (ACRES)	WATER SUPPLY (ACRE-FEET)	DEPLETION ¹ (ACRE-FEET)
MUNICIPAL AND INDUSTRIAL WATER	-	37,400	19,050
IRRIGATION			
NON-INDIAN SUPP. SERVICE	3,930	6,600	4,240
NON-INDIAN FULL SERVICE	5,070	13,440	10,000
UTE MT. UTE INDIAN FULL SERV.	560	1,000	810
IRRIGATION TOTALS	9,560	21,040	15,050
NEW MEXICO TOTALS	9,560	58,440	34,100

¹/ FIGURES INCLUDE DEPLETION FROM RESERVOIR EVAPORATION

ANIMAS-LA PLATA PROJECT
NEW MEXICO PORTION
RECONNAISSANCE COMPARISONS

IRRIGATION ALTERNATIVES (9,000 Ac.)

	B-C RATIO
ALL GRAVITY	.94 = 1.0
ALL SPRINKLER	.69 = 1.0
PART GRAVITY-PART SPRINKLER	.89 = 1.0

MUNICIPAL & INDUSTRIAL (37,400 AF)

SERVED FROM RIDGES BASIN RES.	3.60 = 1.0
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ALTERNATIVES INCLUDING M&I

ALL GRAVITY	1.64 = 1.0
ALL APRINKLER	1.29 = 1.0
PART GRAVITY-PART SPRINKLER	1.58 = 1.0

**ANIMAS-LA PLATA PROJECT
COLORADO PORTION**

	<u>LAND (ACRES)</u>	<u>PROJECT WATER SUPPLY (ACRE-FEET)</u>	<u>DEPLETION¹ (ACRE-FEET)</u>
MUNICIPAL & INDUSTRIAL WATER			
DURANGO	--	25,000	13,100
SOUTHERN UTE	--	55,000	56,400
UTE MOUNTAIN UTE	--	6,000	6,100
M&I TOTALS		86,000	75,600
IRRIGATION			
NON-INDIAN SUPP. SERVICE	20,100	18,600	13,100
NON-INDIAN FULL SERVICE	28,500	46,700	38,600
UTE MT. UTE INDIAN FULL SERVICE	11,500	20,500	16,800
SOUTHERN UTE INDIAN FULL SERVICE	<u>3,850</u>	<u>8,000</u>	<u>5,900</u>
IRRIGATION TOTALS	63,950	93,800	74,400
COLORADO TOTALS	63,950	179,800	150,000

Animas-La Plata Project
New Mexico Participation

Effect of consumptive use-diversion requirement revision for crop-ping pattern, temperature and precipitation station location changes on water supply and CRSP depletion.

	Data based on 3-5-75 computations	Data based on 8-14-75 computations	Difference
Irrigation			0
Acres	9,560	9,560	0
Water Supply (AF)	21,040	24,900	+3,860
Depletion (AF)	15,050	17,790	+2,740
M&I			-5,480
Water Supply (AF)	37,420	31,940	-2,740
Depletion (AF)	19,050	16,310	
Total			-1,620
Water Supply (AF)	58,460	56,840	0
Depletion (AF)	34,100	34,100	

KIRTLAND & WATERFLOW
FRUITLAND

POPULATION PROJECTIONS, WATER REQUIREMENTS, EXISTING SUPPLY, AND
SUPPLY NEEDED

MUNICIPAL AND INDUSTRIAL USE

	Population	Water requirement AF 1/2/	Usable water right AF 2/	Supply needed AF 2/	1990		2010		2030	
					Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF 2/	Population	Water requirement AF 1/
Jan.	5,760	—	—	—	—	—	—	—	—	—
Feb.	—	—	—	—	—	—	—	—	—	—
Mar.	—	—	—	—	—	—	—	—	—	—
Apr.	—	—	—	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—	—	—	—
June	—	—	—	—	—	—	—	—	—	—
July	—	—	—	—	—	—	—	—	—	—
Aug.	—	—	—	—	—	—	—	—	—	—
Sept.	—	—	—	—	—	—	—	—	—	—
Oct.	—	—	—	—	—	—	—	—	—	—
Nov.	—	—	—	—	—	—	—	—	—	—
Dec.	—	—	—	—	—	—	—	—	—	—
Total	5,760	1,190	0	1,190	8,570	4,780	0	1,780	12,730	3,640
										2,640

BLANCO
FLORA VISTA

POPULATION PROJECTIONS, WATER REQUIREMENTS, EXISTING SUPPLY, AND
SUPPLY NEEDED

MUNICIPAL AND INDUSTRIAL USE

	1990			2010			2030					
	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF 2/	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF 2/	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF 2/
Jan	1,610	—	—	—	—	—	—	—	—	—	—	—
Feb	—	—	—	—	—	—	—	—	—	—	—	—
Mar	—	—	—	—	—	—	—	—	—	—	—	—
Apr	—	—	—	—	—	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—	—	—	—	—	—
Jun	—	—	—	—	—	—	—	—	—	—	—	—
Jul	—	—	—	—	—	—	—	—	—	—	—	—
Aug	—	—	—	—	—	—	—	—	—	—	—	—
Sep	—	—	—	—	—	—	—	—	—	—	—	—
Oct	—	—	—	—	—	—	—	—	—	—	—	—
Nov	—	—	—	—	—	—	—	—	—	—	—	—
Dec	—	—	—	—	—	—	—	—	—	—	—	—
Total	1610	270	0	270	2,390	400	0	400	3,550	600	-0	600
					@180 \$/gal							

KIRTLAND & WATERFLOW
FRUITLAND

POPULATION PROJECTIONS, WATER REQUIREMENTS, EXISTING SUPPLY, AND
SUPPLY NEEDED
MUNICIPAL AND INDUSTRIAL USE

	1990			2010			2030					
	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF	Population	Water requirement AF 1/	Usable water right AF 2/	Supply needed AF
Tan	5,760	—	—	—	—	—	—	—	—	—	—	—
Jef	—	—	—	—	—	—	—	—	—	—	—	—
Mac	—	—	—	—	—	—	—	—	—	—	—	—
Ope	—	—	—	—	—	—	—	—	—	—	—	—
May	—	—	—	—	—	—	—	—	—	—	—	—
Kir	—	—	—	—	—	—	—	—	—	—	—	—
Wil	—	—	—	—	—	—	—	—	—	—	—	—
Aug	—	—	—	—	—	—	—	—	—	—	—	—
Sept	—	—	—	—	—	—	—	—	—	—	—	—
Oct	—	—	—	—	—	—	—	—	—	—	—	—
Nov	—	—	—	—	—	—	—	—	—	—	—	—
Dec	—	—	—	—	—	—	—	—	—	—	—	—
Total	5,760	1,190	0	1,190	8,570	4,780	0	1,780	12,730	3,640	0	2,640

BY LNUK	DATE 3-7-75	PROJECT FEATURE ANIMAS - LA PLATA	SHEET OF	BY CHKD BY	PROJECT FEATURE	SHEET -
CRSP DEPLETION RATES				DETAILS		

Diversion Requirement as of 3-5-75		Depletion Rate with Full Supply Water from Incidental Total Dept Irrigation Area		Project Water Supply as % of Full Project Water Requirement	
AF/AC	% AF/Acre	AF/AC	AF/Acre	AF/AC	AF/Acre
3.40	1.57	.37	.58	.215	.95
3.40	1.57	.37	.58	.215	.94
2.51	1.57	.27	.42	1.99	.95
2.51	1.57	.27	.42	1.99	.95

AREA
NEW MEXICO

- La Plata (F.S. Gravity)
- La Plata (F.S. Gravity)
- Third Terrace (F.S. Sprinkler)
- Tunnel Ditch (F.S. Sprinkler)

Colorado

- La Plata (S.S. Gravity, above RB, canal)
- Red Mesa (S.S. Sprinkler)
- Red Mesa (F.S. Sprinkler)
- Dry side (F.S. Sprinkler)
- La Plata (S.S. Gravity, New Mex. River)
- Mc Dermott (S.S. Gravity, F.S. Canal, f.)
- Dryside (F.S. Sprinkler, excluding stream)

// Same as La Plata area