

II - DESCRIPTION OF PROJECT

2-01 Location. Mathews Canyon Dam is located about 20 miles southeast of Caliente, Nevada and about 100 miles northeast of Las Vegas, Nevada. The drainage area above Mathews Canyon Dam comprises about 34 square miles in Lincoln County, Nevada, and consists of rolling hills and narrow valleys, with some alluvial wash. Mathews Canyon Dam project provides protection to downstream areas along Clover Creek, Meadow Valley Wash, and the lower Muddy River. Plate 2-01 shows the general location of the dam. Photos 2-1 and 2-2 show the Union Pacific Railroad Station at Caliente and Clover Creek at Meadow Valley Wash, respectively.

2-02 Purpose. The purpose of Mathews Canyon Dam is to provide protection from floods to areas comprising about 13,280 acres. This flood plain includes a portion of 80 miles of Union Pacific Railroad mainline, many miles of county roads, the City of Caliente, and about 3,500 acres of irrigated lands.

2-03 Physical Components. The Mathews Canyon Dam project consists of an embankment, outlet works (intake structure, conduit, and stilling basin), spillway, and reservoir. General plans of the dam embankment and spillway are shown on Plates 2-02 to 2-04. The following paragraphs provide a brief description of specific components in the project.

a. Embankment. The embankment is a compacted earthfill structure with a crest length of 800 feet and a crest width of 20 feet. The crest, at elevation 5,483 feet, msl, has a maximum height above streambed of 71 feet. The upstream slope is 1 vertical on 3 horizontal and the downstream slope is 1 vertical on 2-1/2 horizontal. Access roads traverse both faces as well as the crest of the embankment. The upstream slope is covered by a 2-foot layer of riprap for protection against wave action. To prevent scour from eddy currents that may develop from spillway discharges, a 4-foot layer of stone was placed on the downstream face below elevation 5,430 feet, msl. This detail is shown on Plate 2-03 as part of the relief well detail.

The embankment consists of mostly impervious material. A “chimney” of pervious material, 10 feet thick, rises in the center of the embankment and extends the full length from the left to the right abutment. A blanket of pervious material underlies the downstream part of the embankment and extends from the “chimney” to the downstream toe of the dam. Five relief wells are located along the downstream toe to relieve excessive seepage that may develop in the embankment. Continuous grout curtains, to prevent seepage through the foundation rock, are provided in both abutments. Sections of the embankment are shown on Plate 2-03.

b. Outlet Works. The outlet works is located in the embankment at the right

abutment (looking downstream) and consists of an intake structure, an ungated conduit and a stilling basin. The plan, profile and sections of the outlet works are shown on Plate 2-04 and 2-05. Studies were conducted to determine the type of conduit to be constructed as part of the outlet works. Consideration was given to the following: 1) ease of construction, 2) accessibility for inspection and maintenance, and 3) desirability of providing sufficient capacity to drain the reservoir in a reasonable length of time (estimated to be about 2 weeks). From these studies, it was found that the smallest practicable conduit that would meet these requirements was a 3.5 feet diameter conduit. The outlet discharge curve for the 3.5 feet diameter conduit is shown on Plate 2-06. A general description of the outlet works is contained in the following paragraphs.

(1) Intake Structure. The intake structure is a rectangular concrete tower, 19 feet high and 8.5 feet square, perforated by a series of intake ports 1.5 feet wide by 2 feet high. Inside the tower there is a bell-mouth conduit entrance. Photo 2-3 shows the intake structure located at the right abutment of Mathews Canyon Dam.

(2) Conduit. The conduit, an ungated reinforced-concrete structure, is 3.5 feet in diameter and 368 feet long. Elevations of the conduit's invert are 5,420.00 feet, msl at the upstream end, and 5,416.19 feet, msl at the downstream end. Referring back to the outlet discharge curve on Plate 2-06, the outflow curve reflects that within elevations 5,420 feet, msl and 5,425 feet, msl, the outflow is controlled by critical flow at the grade break at the entrance. When the water surface elevation exceeds elevation 5,425 feet, msl, the conduit entrance pressurizes. The curve generated beyond elevation 5,425 feet, msl is based on an equation for orifice flow, $Q = CA\sqrt{2gh}$, where $C = 0.526$. The maximum capacities with the water surface at the spillway crest (elevation 5,461.00 feet, msl) and at the top of the dam (elevation 5,483.00 feet, msl) are 260 cfs and 321 cfs, respectively. The conduit downstream of the entrance is designed to convey flows in an open channel condition for all discharges.

(3) Stilling Basin. The stilling basin was designed to dissipate energy from high velocity discharges leaving the outlet conduit. Energy is dissipated by the formation of a hydraulic jump. Major features of the stilling basin are a parabolic invert drop, a transition for channel expansion, a baffle wall and an exit sill. Detail sections for these features are shown on Plate 2-04. The stilling basin is also shown in Photos 2-4, 2-5, and 2-6.

c. Spillway. The spillway is made of reinforced concrete and is located in the left abutment. The crest is at elevation 5,461 feet, msl, rectangular in cross-section and leads into a 15.29-foot long ogee profile. A 50-foot long concrete approach channel leads to the crest. A 250-foot long concrete spillway channel transports discharges away from the crest. The spillway channel reduces in width from 50 feet at the toe of the ogee weir to 32.25 feet at the channel's downstream end. Downstream of the spillway channel a 40-foot long unlined trapezoidal channel leads to the natural streambed of Mathews Canyon.

Plan, profile, and sections of the spillway are shown on Plate 2-04.

d. Reservoir. Mathews Canyon Dam backs up a reservoir about 1-1/2 miles long and 1/2 mile wide when water surface reaches the spillway crest elevation of 5,461 feet, msl. Based on the latest available survey data (survey date August 1977), at spillway crest the reservoir covers an area of 299 acres and has a calculated gross capacity of 6,270 acre-feet. At the top of the dam (elevation 5,483 feet, msl) the reservoir has a calculated area of 415 acres and a calculated capacity of 14,576 acre-feet. The sediment-storage allotment is approximately 1,000 acre-feet. The required volume was determined from a study of silt-accumulation rates in the reservoirs in the southwest United States, where it was found that the silting rate was approximately 20 acre-feet per year. Gross capacity is the total reservoir storage capacity including the storage capacity allocated for sediment throughout the life of the project. Net capacity is the current overall storage capacity of a reservoir. *Gross Cap. = Total capacity + capacity allocated for sediment (throughout project life).* *Net Cap. = Gross capacity - sediment accumulation up to present time.* The reservoir is illustrated on Plate 2-06. The area and capacity curves based on the survey of 1977 are shown on Plate 2-07.

During scheduled maintenance, the maintenance crew excavates excess sediment that accumulates at the approach basin and around the intake tower. In 1990, the maintenance crew constructed a berm within the reservoir. The purpose of this berm is to direct sediment flows away from the approach basin and the intake tower so they do not plug up the outlet works. The berm allows inflows of sediment and water to pond at the upstream end of the reservoir, where the sediment would settle and the water would gradually flow toward the approach and intake. Scheduled maintenance is performed once every year. The reservoir and berm are shown on Photo 2-7.

2-04 Related Control Facilities. Mathews Canyon Dam operates in conjunction with Pine Canyon Dam to provide protection to the downstream areas along Clover Creek, Meadow Valley Wash, and the lower Muddy River. Pine Canyon Dam is located approximately 5 miles southwest of Mathews Canyon Dam and controls a drainage basin of about 45 square miles. The Pine Canyon Dam project was completed on 16 December 1957, and consists of an embankment and dike, an outlet works (intake structure and conduit), a spillway, and a reservoir. Pertinent data about Pine Canyon Dam are included in this manual under Exhibit B. Other existing projects located within the Muddy River Basin include various small dams and weirs constructed for the purposes of flood control, erosion control, irrigation, and recreation; however, none of these structures significantly affect large floods.

2-05 Real Estate Acquisition. The Mathews Canyon Dam Project encompasses an area of about 801 acres total. Land in fee comprised 205 acres where the dam and the majority of the reservoir basin are located. Easements on private and public domain lands comprising 350 acres and 246 acres, respectively, were both acquired with rights only to

subject the property to intermittent inundation as required to control flood waters. The Corps' reservoir taking line is at elevation 5,461 feet, msl. The highest elevation in easements is at elevation 5,500 feet, msl. Plate 2-06 shows the reservoir boundaries.

2-06 Public Facilities. Although Mathews Canyon Dam Project was originally authorized for recreational development (PL 78-534), no recreational facilities have been formally developed. However, there is a picnic site that was constructed to accommodate contractor employees and Los Angeles District employees working at the project site during the construction of the dam. This site, consisting of two restrooms, two picnic tables, and a barbeque pit, is not formally open to the public. In addition, since the camp site is located in a remote back-country far from any urban area, it does not receive many visitors outside of the Los Angeles District maintenance personnel. Photo 2-8 shows the picnic site.

**TABLE 2-1. Mathews Canyon Dam Water Control Manual
Storage Capacity Table (acre-feet)**

Survey Date: August 1977

ELEV	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
5,420.0	20.0	20.8	21.7	22.7	23.6	24.7	25.8	27.0	28.2	29.5
5,421.0	30.8	32.2	33.6	35.1	36.7	38.3	40.0	41.7	43.5	45.3
5,422.0	47.2	49.1	51.2	53.2	55.3	57.5	59.7	62.0	64.4	66.7
5,423.0	69.2	71.7	74.3	76.9	79.6	82.3	85.1	87.9	90.8	93.8
5,424.0	96.8	99.9	103.0	106.2	109.4	112.7	116.0	119.5	122.9	126.4
5,425.0	130.0	133.6	137.4	141.2	145.0	149.0	153.0	157.1	161.3	165.6
5,426.0	169.9	174.3	178.8	183.4	188.0	192.8	197.6	202.5	207.4	212.5
5,427.0	217.6	222.8	228.1	233.4	238.9	244.4	250.0	255.6	261.4	267.2
5,428.0	273.1	279.1	285.1	291.3	297.5	303.8	310.1	316.6	323.1	329.7
5,429.0	336.4	343.2	350.0	356.9	363.9	371.0	378.1	385.4	392.7	400.0
5,430.0	407.5	415.0	422.6	430.3	438.1	445.9	453.8	461.7	469.7	477.8
5,431.0	486.0	494.2	502.5	510.9	519.4	527.9	536.5	545.1	553.8	562.6
5,432.0	571.5	581.4	589.4	598.5	607.7	616.9	626.2	635.5	644.9	654.4
5,433.0	664.0	673.6	683.3	693.1	703.0	712.9	722.9	732.9	743.0	753.2
5,434.0	763.5	773.8	784.2	794.7	805.3	815.9	826.6	837.3	848.1	859.0
5,435.0	870.0	881.0	892.2	903.4	914.6	926.0	937.4	948.9	960.5	972.2
5,436.0	983.9	995.7	1,007.6	1,019.6	1,031.6	1,043.8	1,056.0	1,068.3	1,080.6	1,093.1
5,437.0	1,105.6	1,118.2	1,130.9	1,143.6	1,156.5	1,169.4	1,182.4	1,195.4	1,208.6	1,221.8
5,438.0	1,235.1	1,248.5	1,261.9	1,275.5	1,289.1	1,302.8	1,316.5	1,330.4	1,344.3	1,358.3
5,439.0	1,372.4	1,386.6	1,400.8	1,415.1	1,429.5	1,444.0	1,458.5	14,773.2	1,487.9	1,502.6
5,440.0	1,517.5	1,532.4	1,547.5	1,562.6	1,577.7	1,593.0	1,608.3	1,623.8	1,639.3	1,654.8
5,441.0	1,670.5	1,686.2	1,702.1	1,718.0	1,733.9	1,750.0	1,766.1	1,782.4	1,798.7	1,815.0
5,442.0	1,831.5	1,848.0	1,864.7	1,881.4	1,898.1	1,915.0	1,931.9	1,949.0	1,966.1	1,983.2
5,443.0	2,000.5	2,017.8	2,035.3	2,052.8	2,070.3	2,088.0	2,105.7	2,123.6	2,141.5	2,159.4
5,444.0	2,177.5	2,195.6	2,213.9	2,232.2	2,250.5	2,269.0	2,287.5	2,306.2	2,324.9	2,343.6
5,445.0	2,362.5	2,381.4	2,400.4	2,419.5	2,438.6	2,457.7	2,477.0	2,496.3	2,515.6	2,535.0
5,446.0	2,554.5	2,574.0	2,593.6	2,613.3	2,633.0	2,652.7	2,672.6	2,692.5	2,712.4	2,732.4
5,447.0	2,752.5	2,772.6	2,792.8	2,813.1	2,833.4	2,853.7	2,874.2	2,894.7	2,915.2	2,935.8
5,448.0	2,956.5	2,977.2	2,998.0	3,018.9	3,039.8	3,060.7	3,081.8	3,102.9	3,124.0	2,145.2
5,449.0	3,166.5	3,187.8	3,209.2	3,230.7	3,252.2	3,273.7	3,295.4	3,317.1	3,338.8	3,360.6
5,450.0	3,382.5	3,404.4	3,426.5	3,448.6	3,470.8	3,493.1	3,515.5	3,538.0	3,560.5	3,583.2
5,451.0	3,605.9	3,628.7	3,651.6	3,674.6	3,697.7	3,720.9	3,744.2	3,767.5	3,791.0	3,814.5
5,452.0	3,838.1	3,861.8	3,885.6	3,909.5	3,933.4	3,957.5	3,981.6	4,005.9	4,030.2	4,054.6
5,453.0	4,079.1	4,103.7	4,128.4	4,153.1	4,178.0	4,202.9	4,227.9	4,253.0	4,278.2	4,303.5
5,454.0	4,328.9	4,354.4	4,379.9	4,405.6	4,431.3	4,457.1	4,483.0	4,509.0	4,535.1	4,561.2
5,455.0	4,587.5	4,613.8	4,640.2	4,666.7	4,693.2	4,719.7	4,746.3	4,773.0	4,799.8	4,826.5
5,456.0	4,853.4	4,880.3	4,907.3	4,934.3	4,961.4	4,988.5	5,015.7	5,043.0	5,070.3	5,097.7
5,457.0	5,125.1	5,152.6	5,180.1	5,207.7	5,235.4	5,263.1	5,290.9	5,318.7	5,346.6	5,374.6
5,458.0	5,402.6	5,430.7	5,458.8	5,487.0	5,515.2	5,543.5	5,571.1	5,600.3	5,628.8	5,657.3
5,459.0	5,685.9	5,714.5	5,746.3	5,772.0	5,800.8	5,829.7	5,858.7	5,887.7	5,916.7	5,945.8
5,460.0	5,975.0	6,004.2	6,033.5	6,062.9	6,092.4	6,121.9	6,151.5	6,181.2	6,211.0	6,240.8
5,461.0	6,270.7	6,300.7	6,330.7	6,360.9	6,391.1	6,421.3	6,451.7	6,482.1	6,512.6	6,543.2
5,462.0	6,573.8	6,604.5	6,635.3	6,666.2	6,697.1	6,728.1	6,759.2	6,790.4	6,821.6	6,852.9
5,463.0	6,884.3	6,915.8	6,947.3	6,978.9	7,010.6	7,042.1	7,074.2	7,106.1	7,138.0	7,170.1
5,464.0	7,202.2	7,234.4	7,266.7	7,299.0	7,331.4	7,363.9	7,396.5	7,429.1	7,461.8	7,494.6
5,465.0	7,527.5	7,560.4	7,593.4	7,626.5	7,659.7	7,692.9	7,726.2	7,759.6	7,793.0	7,826.5
5,466.0	7,860.1	7,893.8	7,927.5	7,961.3	7,995.2	8,029.1	8,063.1	8,097.2	8,131.4	8,165.6
5,467.0	8,199.9	8,234.3	8,268.7	8,303.2	8,337.8	8,372.5	8,407.2	8,442.0	7,476.9	8,511.9
5,468.0	8,546.9	8,582.0	8,617.2	8,652.4	8,687.7	8,723.1	8,758.6	8,794.1	8,829.7	8,865.4
5,469.0	8,901.1	8,936.9	8,972.8	9,008.8	9,044.8	9,080.9	9,117.1	9,153.3	9,189.6	9,226.0
5,470.0	9,262.5	9,299.0	9,335.6	9,372.3	9,409.0	9,445.8	9,482.7	9,519.6	9,556.5	9,593.3
5,471.0	9,630.7	9,667.9	9,705.1	9,742.4	9,779.8	9,817.2	9,854.7	9,892.2	9,929.9	9,967.6
5,472.0	10,005.3	10,043.1	10,081.0	10,118.9	10,156.9	10,195.0	10,233.1	10,271.3	10,309.6	10,347.9
5,473.0	10,386.3	10,424.8	10,463.3	10,501.8	10,540.5	10,579.2	10,618.0	10,656.8	10,695.7	10,734.7
5,474.0	10,773.7	10,812.8	10,851.9	10,891.2	10,930.5	10,969.8	11,009.2	11,048.7	11,088.2	11,127.8
5,475.0	11,167.5	11,207.2	11,247.1	11,286.9	11,326.9	11,366.9	11,407.1	11,447.3	11,487.5	11,527.9
5,476.0	11,568.3	11,608.8	11,649.4	11,690.0	11,730.7	11,771.5	11,812.4	11,853.4	11,894.4	11,935.5
5,477.0	11,976.7	12,018.0	12,059.3	12,100.7	12,142.2	12,183.7	12,225.4	12,267.1	12,308.9	12,350.8
5,478.0	12,392.7	12,434.7	12,476.8	12,519.0	12,561.2	12,603.5	12,645.9	12,688.4	12,731.0	12,773.6
5,479.0	12,816.3	12,859.1	12,901.9	12,944.9	12,987.9	13,030.9	13,074.1	13,117.3	13,160.7	13,204.0
5,480.0	13,247.5	13,291.0	13,334.6	13,378.2	13,421.9	13,465.7	13,509.5	13,553.3	13,597.2	13,641.2
5,481.0	13,685.2	13,729.2	13,773.3	13,817.5	13,861.7	13,906.0	13,950.3	13,994.7	14,039.1	14,083.6
5,482.0	14,128.2	14,172.8	14,217.4	14,262.1	14,306.9	14,351.7	14,396.5	14,441.1	14,486.4	14,531.4
5,483.0	14,576.5									

TABLE 2-2. Mathews Canyon Dam Water Control Manual
Surface Area Table (acres)
 Survey Date: August 1977

ELEV	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
5,420	8.0	8.0	9.0	9.0	10.0	10.0	11.0	11.0	11.0	12.0
5,421	12.0	13.0	13.0	14.0	14.0	15.0	15.0	16.0	17.0	17.0
5,422	18.0	18.0	19.0	19.0	20.0	21.0	21.0	22.0	22.0	23.0
5,423	24.0	24.0	25.0	26.0	26.0	27.0	28.0	29.0	29.0	30.0
5,424	31.0	31.0	32.0	33.0	34.0	35.0	35.0	36.0	37.0	38.0
5,425	39.0	39.0	40.0	40.0	41.0	42.0	42.0	43.0	43.0	44.0
5,426	45.0	45.0	46.0	47.0	47.0	48.0	49.0	49.0	50.0	51.0
5,427	51.0	52.0	53.0	53.0	54.0	55.0	55.0	56.0	57.0	57.0
5,428	58.0	59.0	60.0	60.0	61.0	62.0	63.0	63.0	64.0	65.0
5,429	66.0	66.0	67.0	68.0	69.0	69.0	70.0	71.0	72.0	73.0
5,430	73.0	74.0	75.0	75.0	76.0	77.0	78.0	78.0	79.0	80.0
5,431	80.0	81.0	82.0	83.0	83.0	84.0	85.0	86.0	86.0	87.0
5,432	88.0	89.0	89.0	90.0	91.0	92.0	92.0	93.0	94.0	95.0
5,433	96.0	96.0	97.0	98.0	99.0	100.0	100.0	101.0	102.0	103.0
5,434	104.0	104.0	105.0	106.0	107.0	108.0	109.0	109.0	110.0	111.0
5,435	112.0	113.0	113.0	114.0	115.0	115.0	116.0	117.0	117.0	118.0
5,436	119.0	119.0	120.0	121.0	121.0	122.0	123.0	123.0	124.0	125.0
5,437	126.0	126.0	127.0	128.0	128.0	129.0	130.0	130.0	131.0	132.0
5,438	133.0	133.0	134.0	135.0	135.0	136.0	137.0	138.0	138.0	139.0
5,439	140.0	141.0	141.0	142.0	143.0	144.0	144.0	145.0	146.0	147.0
5,440	147.0	148.0	149.0	150.0	150.0	151.0	152.0	153.0	154.0	154.0
5,441	155.0	156.0	157.0	158.0	159.0	159.0	160.0	161.0	162.0	163.0
5,442	163.0	164.0	165.0	166.0	167.0	168.0	168.0	169.0	170.0	171.0
5,443	172.0	173.0	174.0	174.0	175.0	176.0	177.0	178.0	179.0	180.0
5,444	180.0	181.0	182.0	183.0	184.0	185.0	186.0	187.0	188.0	188.0
5,445	189.0	190.0	190.0	191.0	192.0	192.0	193.0	193.0	194.0	194.0
5,446	195.0	196.0	196.0	197.0	197.0	198.0	199.0	199.0	200.0	200.0
5,447	201.0	201.0	202.0	203.0	203.0	204.0	204.0	205.0	206.0	206.0
5,448	207.0	207.0	208.0	209.0	209.0	210.0	210.0	211.0	212.0	212.0
5,449	213.0	213.0	214.0	215.0	215.0	216.0	216.0	217.0	218.0	218.0
5,450	219.0	220.0	220.0	221.0	222.0	223.0	224.0	225.0	226.0	226.0
5,451	227.0	228.0	229.0	230.0	231.0	232.0	232.0	233.0	234.0	235.0
5,452	236.0	237.0	238.0	239.0	239.0	240.0	241.0	242.0	243.0	244.0
5,453	245.0	246.0	247.0	247.0	248.0	249.0	250.0	251.0	252.0	253.0
5,454	254.0	255.0	256.0	256.0	257.0	258.0	259.0	260.0	261.0	262.0
5,455	263.0	263.0	264.0	265.0	265.0	266.0	266.0	267.0	267.0	268.0
5,456	268.0	269.0	270.0	270.0	271.0	271.0	272.0	272.0	273.0	274.0
5,457	274.0	275.0	275.0	276.0	277.0	277.0	278.0	278.0	279.0	279.0
5,458	280.0	280.0	281.0	282.0	282.0	283.0	283.0	284.0	284.0	285.0
5,459	286.0	286.0	287.0	287.0	288.0	288.0	289.0	290.0	290.0	291.0
5,460	291.0	292.0	293.0	294.0	294.0	295.0	296.0	296.0	297.0	298.0
5,461	299.0	299.0	300.0	301.0	302.0	302.0	303.0	304.0	304.0	305.0
5,462	306.0	307.0	307.0	308.0	309.0	310.0	310.0	311.0	312.0	313.0
5,463	313.0	314.0	315.0	316.0	316.0	317.0	318.0	319.0	319.0	320.0
5,464	321.0	322.0	322.0	323.0	324.0	325.0	325.0	326.0	327.0	328.0
5,465	329.0	329.0	330.0	331.0	331.0	332.0	333.0	334.0	334.0	335.0
5,466	336.0	336.0	337.0	338.0	339.0	339.0	340.0	341.0	342.0	342.0
5,467	343.0	344.0	345.0	345.0	346.0	347.0	347.0	348.0	349.0	350.0
5,468	350.0	351.0	352.0	353.0	353.0	354.0	355.0	356.0	356.0	357.0
5,469	358.0	359.0	359.0	360.0	361.0	362.0	362.0	363.0	364.0	365.0
5,470	366.0	366.0	367.0	367.0	368.0	368.0	369.0	370.0	370.0	371.0
5,471	371.0	372.0	373.0	373.0	374.0	374.0	375.0	376.0	376.0	377.0
5,472	377.0	378.0	378.0	379.0	380.0	380.0	381.0	381.0	382.0	383.0
5,473	383.0	384.0	384.0	385.0	386.0	386.0	387.0	387.0	388.0	389.0
5,474	389.0	390.0	390.0	391.0	392.0	392.0	393.0	393.0	394.0	395.0
5,475	395.0	396.0	397.0	398.0	399.0	399.0	400.0	401.0	402.0	403.0
5,476	403.0	404.0	405.0	406.0	407.0	407.0	408.0	409.0	410.0	411.0
5,477	411.0	412.0	413.0	414.0	415.0	416.0	416.0	417.0	418.0	419.0
5,478	420.0	420.0	421.0	422.0	423.0	424.0	425.0	425.0	426.0	427.0
5,479	428.0	429.0	430.0	430.0	431.0	432.0	433.0	434.0	435.0	435.0
5,480	436.0	437.0	437.0	437.0	438.0	438.0	439.0	439.0	439.0	440.0
5,481	440.0	441.0	441.0	441.0	442.0	442.0	443.0	443.0	443.0	444.0
5,482	444.0	444.0	445.0	445.0	446.0	446.0	446.0	447.0	447.0	448.0
5,483	448.0									

Note: This table was generated using the storage values shown in Table 2-1.



Photo 2-1. Union Pacific Railroad at Caliente, Nevada.



Photo 2-2. Clover Creek at Meadow Valley Wash on Hwy 93, Caliente, NV.



Photo 2-3. Intake structure and staff boards at right abutment.



Photo 2-4. Looking upstream at outlet tunnel and stilling basin.



Photo 2-5. Looking downstream at stilling basin.



Photo 2-6. Riprap at the Transition from Stilling Basin to Outlet Channel

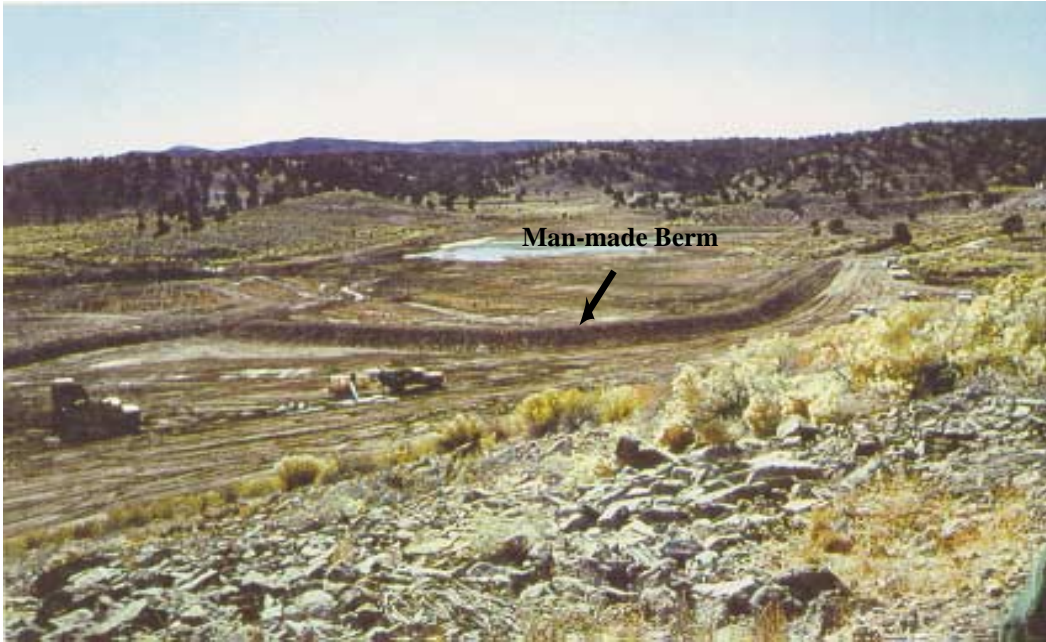


Photo 2-7. Mathews Canyon Reservoir from top of dam.



Photo 2-8. Sheltered picnic area at Mathews Canyon Dam looking towards the reservoir.