

ABIQUIU DAM HISTORY

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In 1949, the Project Document was published as House Document No. 243, 81st Congress, 1st Session. It recommended construction of the Chamita Dam on the Rio Chama for the control of floods and sediment on the Rio Grande. By the Flood Control Act of 1948 and 1950 Congress authorized the construction of the Chamita Dam. Later, project investigation showed that it was more practical and economical to build a high dam at Abiquiu and a low dam at Chamita in lieu of a single high dam at Chamita. This plan was adopted. Subsequently, Chamita Dam was deleted by the Flood Control Act of 1960.

Construction of Abiquiu Dam was begun in FY 1956. The contractors on the flood control outlet were A.H. Horner Construction Co., and Mid Valley Utility Contractors Inc. The Mittry Construction Co. was awarded the contract for the embankment and spillway. Closure was effected in July 1959.

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The cost of construction of the project was \$21.2 million. Mr. Willie Trujillo lost his life and several men were injured during construction. To date (March 80), the cost benefit has been \$16 million.

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system utilized a two mile long belt loop to cover the one mile distance from the borrow site to the dam site. To accomodate the belt, a cut was made through the mesa finger located 3/4 mile west of the dam site.

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Lastly, D. Brief summary of the Evolution of Abiquiu Dam.
II Attention some of the current ~~is~~ public issues

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Purpose: ~~Flood and Sediment control.~~ No permanent pool was authorized although a minimal sediment pool was maintained.

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1973 Again pool increased, now to 4,000 ac.ft. to further increase sedimentation trap efficiency.

1974 Albuquerque proposed plans to be able to store up to 200,000 ac.ft. of water. Studies need to be done because any significant permanent storage above the proposed 44,400 ac.ft. recreation pool would reduce the utility of the proposed facilities at the Cerrito Boat Launch Area. The increased storage would not affect the other recreation areas because of their elevation.

1975 - 1976 Master Plan developed. ^{within this M.P.} Great expansion of recreational facilities considered. Several new areas around the lake are planned for development. Access easements to these lands will need to be acquired but the land is owned as fee simple.

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1986 Dam raised 13 feet and emergency spillway is widened from 40 to 80 feet because new weather data shows an increase of probable maximum rainfall.

1987 ^{one yr. later.} June 22, maximum pool record 6,262.06

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Slow

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Also City of Albuquerque unveils plans to start utilizing its stored water at Abiquiu for its municipal purposes. Will have a surface water treatment plant in operation by 2004. This could have dramatic effects on the water storage at Abiquiu Dam. Predictions indicate that the lake level will fluctuate dramatically and overall storage ~~will~~ be much less (about half) than what it is now unless other interested parties purchase rights to store water at Abiquiu.

3 main groups: 1. Recreational visitors, 2. Local Ranchers 3. Local Developers.
CURRENT ISSUES

1. Minimal recreational facilities:

Congestion at boat ramp (only public access to lake) causing an overlap of conflicting recreational activities. People are forced to swim, fish, and boat all in the same area. We have two boat ramps, but the newest one was built so high in elevation that it rarely extends into the water. Therefore, visitors can only use the one boat ramp that extends into the water again compounding the congestion problems.

Conflict of Recreational Interest.

Sea Space

Riana area is only adequate area for camping and picnicking thus these two activities overlap often causing problems with site availability and conflicts with day use hours and quiet hours for campers.

Adequate boat docking facilities have been difficult to maintain due to high winds and fluctuating lake elevations.

On the positive side, as recommended in the Master Plan, the boat ramp was recently widened from two lanes to four lanes by the Sea Bees out of California. This was done to alleviate some of the congestion problems on the ramp itself.

2. Adjacent ranchers:

Water access to lake for cattle.

Project boundary only partially fenced thus rampant cattle encroachment. Not consistent. Some ranchers fenced off while others have free range of the land.

3. General growth and development:

Problems with people trying to establish residency within flowage easement boundary. Already had four habital structures located within the flowage easement which led to a legal fiasco. Constantly monitoring these boundaries to avoid this problem in the future.

Regulatory problems: Most of the shoreline is private property and people are now trying

to build private boat ramps and boat docks. The lake has no shoreline management plan authorized thus docks are not permitted. (Have already been to court with this issue.) People are also excavating headwaters, etc. for construction purposes.

Provided by USCOE staff during site visit.

L-77
(portion)

Abiquiu Reservoir
Historical Storage
native

max storage
at Abiquiu

Annual

Date	Category	Otowi Volume (ac-ft)	SJC Storage (ac-ft)	Flood Control Storage (ac-ft)	Total Storage (ac-ft)	Elevation (ft)
03 Jun 75	Wet	1,185,800	0	110,300	110,300	6193.86
19 May 76	Dry	682,500	27,340	10,240	37,580	6161.44
03 Jun 77	Very Dry	296,500	24,170	3,150	27,320	6153.10
01 Jun 78	Dry	699,900	18,432	38,748	57,180	6172.91
28 Jun 79	Very Wet	1,888,700	27,093	119,807	146,900	6205.26
14 Jun 80	Very Wet	1,392,200	41,942	156,458	198,400	6219.65
01 Oct 81	Very Dry	416,900	36,087	97,313	133,400	6202.35
04 Jun 82	Wet	1,183,500	34,402	50,138	84,540	6185.80
14 Jun 83	Very Wet	1,402,500	88,382	87,118	175,500	6213.89
29 May 84	Very Wet	1,343,100	138,913	96,087	235,000	6228.09
12 Jun 85	Very Wet	2,169,100	180,666	202,114	382,780	6256.23
27 Jul 86	Very Wet	1,805,900	188,732	130,429	319,161	6246.74
22 Jun 87	Very Wet	1,662,400	186,992	215,226	402,258	6261.06
28 May 91	Very Wet	1,239,000	170,467	86,389	256,856	6235.24
07 Jun 93	Very Wet	1,489,400	177,818	86,654	264,472	6236.81
22 Jun 95	Very Wet	1,692,000	185,291	120,653	305,944	6244.90

Category is from S.S. Papadopoulos & Associates, INC. analysis of Otowi index flows from 1975-1999. Very dry flows are those below 691,000 af/year, dry flows are between 691,000 and 703,1000 af/year, average flows are between 703,100 and 1,072,000 af/year, wet flows are between 1,072,000 and 1,222,300 af/year and very wet flows are between 1,072,000 and 1,222,3000 af/year and higher. The amount in the flood control storage column is what could have been held in a conservation pool if space permitted. Keep in mind that in 1985, 1986, and 1987 Elephant Butte was full. The volumes in the flood control storage are with us getting up to channel capacity below Abiquiu and not cutting back for flood control below EB or SM Railroad Bridge. From the above table it can be seen that 20,000, 50,000, and 100,000 ac-ft could be stored in a conservation pool if enough space exists. The limitation on storing higher than 100,000 would be not enough space below 6220. The table illustrates why the waivers and conservation pool are something that can help with water management in the basin under the right conditions..

Flood pool begins at 6235'.

Run channel capacity (1800 cfs) below Abiquiu
75% of the time.

Authorized conservation pool now can only store
below 6220'.

Space will be freed up when SJC water being used.
Potential to store native water in Abiquiu.

Only authorized to store up to 6220.

Problem for irrigators is 1800 cfs. in May & June

This is the Missing
"L" # Source.

Do you remember where
it came from?

7
L-77

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