

BALMORHEA PROJECT
Balmorhea
Reeves County
Texas

HAER TX-129
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN ENGINEERING RECORD

BALMORHEA PROJECT

HAER No. TX-129

Location: Balmorhea, Reeves County, Texas

Date of Construction: 1917

Builders: C.B. Westerman, general contractor

Original, Current Owners and Uses: Reeves County Water Improvement District No. 1, irrigation

Significance: The Balmorhea Project is a well-preserved example of an early-twentieth-century irrigation system. Corporate projects of this type were once common in the Southwest before large-scale state and federal involvement.

Description: Balmorhea Lake was formed by an earthfill dam stretching 4,000' across Sandia Creek. The design of this dam was unusual due to the use of a trench puddled with clay running the length of the dam that helped limit seepage. The trench measured from 10' to 40' wide and 0' to 20' deep along the length of the dam. Selected clay was compacted in the trench and layers of earth were placed above to form the dam.

The lake still stores water for irrigation, although silting through the years has seriously reduced its capacity. The dams and control gate do not appear to have been altered since their construction in 1917.

History: Balmorhea was established in 1906 by a firm of land promoters (Balcolm, Morrow, and Rhea) after whom the town was named. It was located in the middle of a large tract of land that could be watered by San Solomon Springs. In 1911, the Pecos Valley Southern Railroad reached the town, which by then had a population of 250. Two alfalfa mills and a hotel had also been established.

The Balmorhea Project is located in one of the most remote regions of West Texas. The project was developed to provide storage for irrigation water from San Solomon Spring by placing a 4,000' dam across Sandia Creek. Lake Balmorhea was constructed in 1917 by the Reeves County Water Improvement District No. 1. The general contractor was C.B. Westerman, and the cost of construction was estimated to be \$121,700.

Additional sources of water for storage in the lake were obtained in 1946 when water rights from Phantom Lake Springs and Toyah Creek were acquired. The capacity of the lake in 1948 was 6,350 acre-feet.

Sources:

Dowell, Cleo Lafoy and Seth Darnaby Breeding. "Dams and Reservoirs in Texas. Historical and Descriptive Information." Texas Water Development Board Report No. 48, Austin, June 1967.

Sullivan, Vernon C. "Construction Methods Used in Building the Lower Reservoir Dam at the Balmorhea Project." *Transactions of the American Society of Civil Engineers* LXXXIII, no. 1430 (1919-1920): 305-315.

Webb, Walter Prescott, ed. *The Handbook of Texas*. Vol. 1. Austin: Texas State Historical Association, 1952.

Historians: Steve Rae, November 7, 1971

Project

Information:

The Balmorhea Project was inventoried for the Historic American Engineering Record as part of the Southwest Water Resources Project, a joint project with the Texas Tech Water Resources Center. The survey was subsequently published as *Water for the Southwest: Historical Survey and Guide to Historic Sites* by the American Society of Civil Engineers in September 1973.