

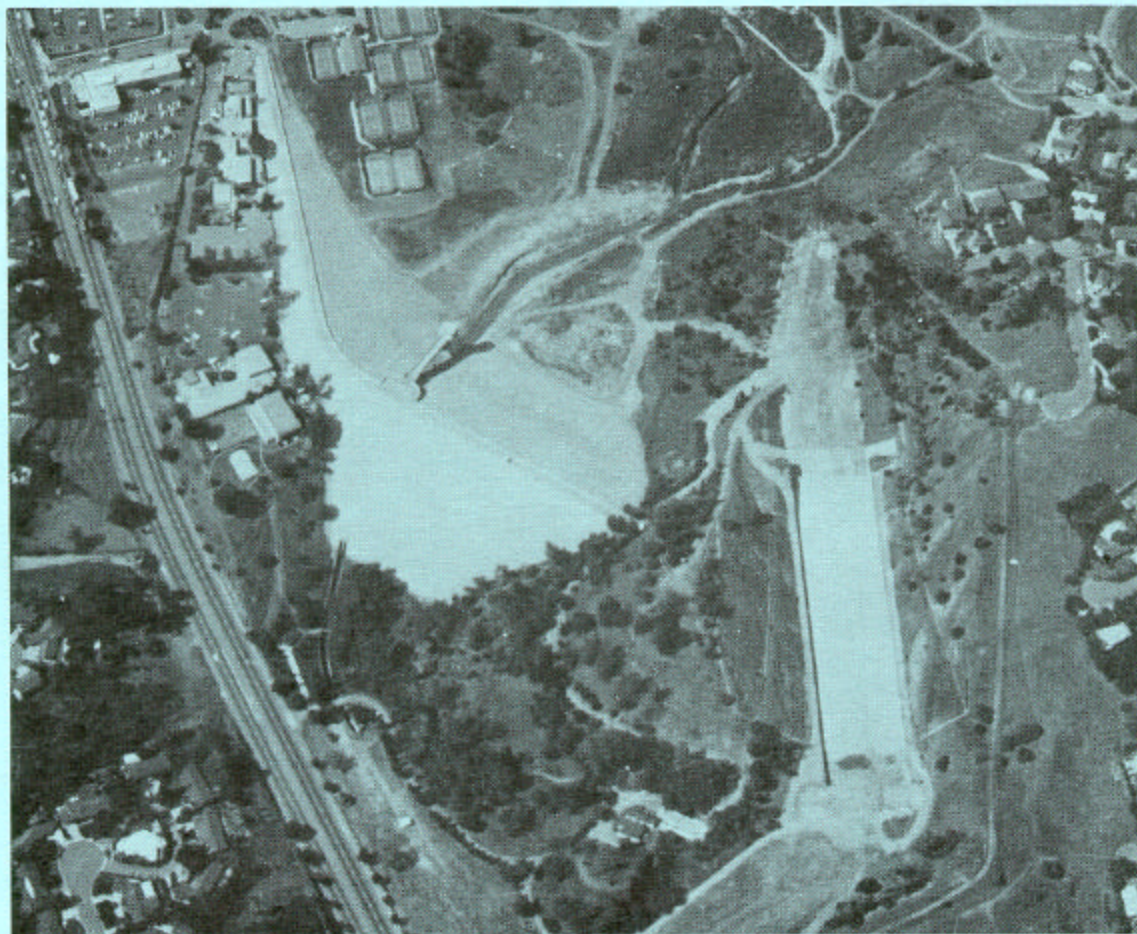


US Army Corps
of Engineers
Los Angeles District

WATER CONTROL MANUAL

BREA DAM
BREA CREEK

California



May 1990

**BREA DAM AND RESERVOIR
ORANGE COUNTY, CALIFORNIA**

**PERTINENT DATA
MAY 1990**

Construction Completed		March, 1942
Stream System		Brea Creek
Drainage Area sq. miles . .		22
Reservoir:		
Elevation		
Streambed at dam ft., NGVD . .		208.0
Spillway crest ft., NGVD . .		279.0
Spillway design surcharge level ft., NGVD . .		292.2
Top of dam ft., NGVD . .		295.0**
Area		
Spillway crest acres . .		162.7
Spillway design surcharge level acres . .		250.2
Top of dam acres . .		272.8
Capacity, gross		
Spillway crest acre-feet . .		4,008.5 (3.42*)
Spillway design surcharge level acre-feet . .		6,688.6 (5.70*)
Top of dam acre-feet . .		7,420.2 (6.32*)
Allowance for sediment (50-year) acre-feet . .		1,200 (1.02*)
Dam: - Type		Earthfill
Height above original streambed ft . .		87
Top Length ft . .		1,765
Top width ft . .		20
Freeboard ft . .		5.8+
Spillway: - Type	Ungated, overflow concrete ogee	
Crest Length ft . .		150
Design surcharge c.f.s . .		27,000
Outlets:		
Uncontrolled		
Number and size ft . .	2 - 3.0' W x 2.5' H	
Entrance invert elevation ft., NGVD . .		251
Controlled		
Gates - type	Vertical Lift	
Number and size ft . .	2 - 5' W x 8'H	
Entrance invert elevation ft., NGVD . .		208
Conduits		
Number and size ft . .	2 - 5' W x 8' H	
Length ft . .		484
Maximum capacity at spillway crest c.f.s . .		3,800
Regulated capacity at spillway crest c.f.s . .		1,500
Standard Project Flood:		
Duration (inflow) days . .		2
Total volume acre-feet . .	8,260 (7.04*)	
Inflow peak c.f.s . .		8,000
Outflow peak c.f.s . .		5,060
Maximum water surface elevation ft . .		283.2
Probable Maximum Flood:		
Duration (Inflow) hours . .		12
Total volume acre-feet . .	8,200 (6.99*)	
Inflow peak c.f.s . .		37,000
Outflow peak c.f.s . .		27,000
Maximum water surface elevation ft . .		292.2
Historic Maximums		
Maximum mean hourly inflow c.f.s . .		2,625
Date		3-1-83
Maximum release c.f.s . .		1,440
Date		3-1-83
Maximum storage acre-feet . .		1,073
Date		3-1-83
Maximum water surface elevation ft . .		252.0
Date		3-1-83
Real Estate Taking Line:		
By fee acres . .		236.65
By easements acres . .		62.08

*Inch of runoff

**Top of parapet watt elevation 298.0 feet



DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
630 Sansome Street, Room 720
San Francisco, California 94111-2206

REPLY TO
ATTENTION OF:

CESPD-ED-W (1110-2-240b)

MAR 20 1951

MEMORANDUM FOR *✓*Commander, Los Angeles District
Commander, Sacramento District

SUBJECT: Planned Deviations from Approved Water Control Plans

1. All planned deviations from approved water control plans for reservoir projects within the South Pacific Division must be coordinated with the Coastal Engineering and Water Management Division at CESPD. Approval must be given prior to implementation of the deviation.
2. Emergency deviations do not require prior approval but coordination must still be made as soon as is practical.

A handwritten signature in black ink, appearing to read "Roger F. Yankospe".

ROGER F. YANKOSPE
Brigadier General, U.S. Army
Commanding