US Army Corps
of Engineers®

INTERIM
WATER CONTROL PLAN
(DURING CONSTRUCTION)

PRADO DAM & RESERVOIR
SANTA ANA RIVER, ORANGE COUNTY, CALIFORNIA

MAY 2003

PRADO DAM AND RESERVOIR
RIVERSIDE COUNTY, CALIFORNIA
PERTINENT DATA
(EXISTING PROJECT - Revised January 1993)

Construction Completed		April 1941
Stream System		Santa Ana River
Drainage Area	sq. mi.	2,255
Reservoir:		
Elevation		
Streambed at Dam	ft., m.s.l.	460.0
Debris Pool	ft., m.s.l.	490.0
Buffer Poll (Flood Season)	ft., m.s.l.	494.0
(Non-flood Season)	ft., m.s.l.	505.0
Spillway Crest	ft., m.s.l.	543.0
Revised Standard Project Flood Level (1969)	ft., m.s.l.	554.6
Spillway Design Surcharge Level (1941)	ft;. m.s.l.	556.0
Top of Dam	ft., m.s.l.	566.0
Revised Probable Maximum Flood Level (1969)	ft., m.s.l.	570.3**
Area		
Debris Pool	acres	768
Buffer Pool (Flood Season)	acres	1,081
(Non-flood Season)	acres	2,123
Spillway Crest	acres	6,566
Revised Standard Project Flood Level (1969)	acres	8,485.3
Spillway Design Surcharge Level (1941)	acres	8,769.5
Top of Dam	acres	11,030
Revised Probable Maximum Flood Level (1969)	acres	11,900**
Capacity, Gross (1988 Survey)		
Debris Pool	ac-ft(in.)	4,689 (0.04*)
Buffer Pool (Flood Season)	ac-ft(in.)	8,437 (0.07*)
(Non-flood Season)	ac-ft(in.)	25,760 (0.2*)
Spillway Crest	ac-ft(in.)	187,700 (1.50*)
Revised Standard Project Flood Level (1969)	ac-ft(in.)	283,414 (2.36*)
Spillway Design Surcharge Level (1941)	ac-ft(in.)	295,581 (2.46*)
Top of Dam	ac-ft(in.)	383,500 (3.10*)
Revised Probable Maximum Flood Level (1969)	ac-ft(in.)	436,000 (3.62*)**
Allowance for Sediment (50-year)	ac-ft(in.)	12,000 (0.10*)
Dam: - Type		Earth-fill
Height above Original Streambed	ft.	106
Top Length	ft.	2,280
Top Width	ft.	30
Design Freeboard (1941)	ft.	10
Spillway: - Type		Ungated Ogee
Crest Length	ft.	1,000
Design Surcharge/Discharge (1941)	ft/cfs	13/181,000
Outlets:		
Uncontrolled (Note: Both uncontrolled outlets are plugged)		
Controlled		
Gate Type		Vertical Lift
Number and Size		6 - 7'W x 12'H
Entrance Invert Elevation	ft., m.s.l.	460
Conduits		
Number and Size		2 - 13.5'W x 13.5'H
Length	ft., m.s.l.	750
Maximum Capacity at Spillway Crest	cfs	17,000
Maximum Regulated Reservoir Release	cfs	5,000
Revised Standard Project Flood (1969):		
Duration (Inflow)	days	4
Total Volume	ac-ft(in.)	488,000 (4.05*)
Maximum Water Surface Elevation	ft., m.s.l.	554.59
Inflow Peak	cfs	282,000
Outflow Peak	cfs	150,000
Revised Probable Maximum Flood (1969):		
Duration (Inflow)	days	6**
Total Volume	ac-ft(in.)	1,447,000 (12.24*)**
Maximum Water Surface Elevation	ft., m.s.l.	570.3**
Inflow Peak	cfs	670,000**
Outflow Peak	cfs	603,000**
Historic Maximums:		
Maximum Discharge on Record	cfs	5,992
Date		2-22-80
Maximum Water Surface Elevation	ft., m.s.l. (ac-ft)	528.0 (111,316)
Date		2-22-80

* Inches of Runoff over Watershed
** Note: Dam is Over-topped

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
333 Market Street, Room 923
San Francisco, California 94105-2195

REPLY TO
ATTENTION OF

CESPD-MT-E

JUL 18 2013

MEMORANDUM FOR Commander, Los Angeles District, ATTN: CESPL-ED-HR

SUBJECT: Approval – Prado Dam Interim Water Control Manual During Construction

The South Pacific Division, Water Management Team has completed the policy compliance and quality assurance review of subject document. A final copy should be provided to this office once completed. If you have any questions, please do not hesitate in contacting Ms. Theresa Mendoza of my staff at (415) 977-8106.

FOR THE COMMANDER:

Marda Q Stothers

MARDA Q. STOTHERS
Chief, Engineering & Construction Division

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