

## IX - WATER CONTROL MANAGEMENT

### 9-01 Responsibilities and Organization

a. Corps of Engineers. Carbon Canyon Dam is owned, operated, and maintained by LAD, which has complete regulatory responsibility for the dam, reservoir, and the 4100 feet of channel downstream from the outlet works to Golden Avenue.

Water control decisions about reservoir regulation at Carbon Canyon Dam and other COE facilities in LAD are made by RRS. Table 9-1 shows an organizational chart depicting the chain of command for reservoir regulation.

Gate operation instructions to the dam operator are issued by RRS (see Section 5-6 and 5-7). In the event that communications between RRS and Carbon Canyon Dam are interrupted, a set of Standing Instructions to Dam Operator is included in Exhibit A. Dam operators are part of Operations Branch, Construction-Operations Division.

b. Other Federal Agencies. COE has complete responsibility for the regulation of Carbon Canyon Dam. Although COE receives data and information from other Federal and local agencies and informs these agencies of major decisions affecting Carbon Canyon Dam, no other agency has any responsibility in the regulation of Carbon Canyon Dam. USGS operates stream gauges in the watershed.

c. State and County Agencies. OCEMA has maintenance responsibility for Carbon Creek Channel, Carbon Canyon Channel between Golden Avenue and the Miller Retarding Basin Complex, and Carbon Canyon Diversion Channel. A number of projects downstream from the dam are also maintained and operated by OCEMA. These include flood retarding and groundwater recharge facilities.

The reservoir area is being developed as a recreational area by Orange County under a long term lease with the Federal Government. Existing recreational facilities are maintained by local interests.

d. Private Organizations. There is no involvement of private organizations in the regulation of Carbon Canyon Dam.

### 9-02 Interagency Coordination

LAD coordinates with other, Federal, State, County, and local organizations, as well as with the press (media), concerning water control at Carbon Canyon Reservoir.

a. Local Press and Corps of Engineers Bulletins. The Public Affairs Office of LAD is responsible for interfacing with the press regarding regulation at Carbon Canyon Dam and flows in the channel downstream of the dam. This is accomplished through interviews and the occasional issuance of press releases. LAD does not broadly issue flood watches or warnings or other status reports or forecasts to the general public. These are the responsibility of NWS.

b. National Weather Service. LAD utilizes NWS data and forecasts in the regulation of Carbon Canyon Dam. LAD shares data in the vicinity of Carbon Canyon Dam (as well as other areas) with NWS and USGS on real time basis and after the fact.

c. U.S. Geological Survey. LAD receives streamflow data from the USGS, primarily on a historical basis in southern California. LAD coordinates with USGS in many different ways, and shares its data with USGS.

d. OCEMA. OCEMA is responsible for maintenance and patrolling of Carbon Creek Channel, Carbon Canyon Diversion Channel, and the section of Carbon Canyon Channel between Golden Avenue and Miller Basin Complex. Release rates from Carbon Canyon Dam are not regulated by these channels. Changes can be made however, to assist in the groundwater recharge program of Miller Basin and the associated downstream channels, provided safety and operation of the dam are not hindered.

#### 9-03 Interagency Agreements

No interagency agreements exist with the exception of the land leased to Orange County for recreational purposes.

#### 9-04 Commissions, River Authorities, Compacts, and Committees

Carbon Canyon Dam is not involved in any commissions, compacts, or other formal multi-agency agreements.

#### 9-05 Reports

LAD prepares and files several types of reports. Additionally, each month during the runoff season, November through April, a flood situation and runoff potential report is prepared and sent to South Pacific Division of COE.

Seven specific forms are prepared in conjunction with the District's reservoir regulation at Carbon Canyon Dam. A copy of each of these forms is included as figures 9-1 through 9-7. These include: Flood Control Basin Operation Report (prepared by each dam operator), Rainfall Record (from manual readings of glass tube rain gauges), Reservoir Operation Report (daily report prepared by RRS), Record of Data from Digital Recorders (precipitation, water surface elevation, and downstream gauge height), Reservoir Computations (prepared by RRS), Record of Calls (both radio and telephone), and Monthly Reservoir Operation (operational hydrographs).

LAD also collects and files charts from recording instruments at Carbon Canyon Dam (and other dams), including precipitation, reservoir water surface elevation, and gate opening. Daily precipitation totals and, as needed, other data (such as unusually high intensities) are manually extracted from the precipitation charts, and the charts are sent to the National Climatic Data Center of NOAA. The other charts are maintained on file at the LAD District Office in RRS.

Table 9-1

Chain of Command for Reservoir Regulation Decisions

Corps of Engineers

Los Angeles District

District Engineer

Office Phone Number

(213) 452-3961

Water Control Decisions

Gate Operations

Chief, Engineering Division

(213) 452-3629

Chief, Hydrology and Hydraulic Branch

(213) 452-3525

Chief, Reservoir Regulation Section

(213) 452-3527

Chief, Reservoir Regulation Unit

(213) 452-3530

Chief, Construction-Operations  
Division

(213) 452-3349

Chief, Operations Branch

(213) 452-3385

Chief, Operations and  
Maintenance Section

(626) 401-4008

Dam Operator Foreman

(818) 401-4006

Carbon Canyon Dam Operator

(714) 528-6822



### RAINFALL RECORD

STATION					<input type="checkbox"/> HOURLY <input type="checkbox"/> DAILY		DATE
HR	DA	TIME OF READING	GAGE READING	STORM TOTAL	SEASON TOTAL	OBSERVER	REMARKS (SNOW, TEMP., ETC.)
0000	1						
0100	2						
0200	3						
0300	4						
0400	5						
0500	6						
0600	7						
0700	8						
0800	9						
0900	10						
1000	11						
1100	12						
1200	13						
1300	14						
1400	15						
1500	16						
1600	17						
1700	18						
1800	19						
1900	20						
2000	21						
2100	22						
2200	23						
2300	24						
2400	25						
	26						
	27						
	28						
	29						
	30						
	31						
<b>TOTAL</b>							

# RESERVOIR OPERATION REPORT

DATE

TIT

RADIO CALL SIGN WUK	DAM	WATER SURFACE ELEVATION (FT. MSL)	DIGITAL RECORDER READINGS	RAINFALL			GATE SETTINGS <i>(Printed values show initial settings of gates prior to flood runoff)</i>
				DIGITAL RECORDER	GLASS TUBE		
					SINCE LAST REPORT (INCHES)	STORM TOTAL (INCHES)	
411	SEPULVEDA		WS GH				GATES OPEN 9.0 FT. <input type="checkbox"/>
412	HANSEN		WS GH				GATES OPEN 8.0 FT. <input type="checkbox"/>
419	SANTA FE		WS GH				# 14 OPEN 0.5 FT. <input type="checkbox"/>
416	BREA		WS GH				GATES OPEN 2.0 FT. <input type="checkbox"/>
417	FULLERTON		WS GH				GATES OPEN 1.1 FT. <input type="checkbox"/>
418	CARBON CANYON		WS GH				# 1 OPEN 0.5 FT. <input type="checkbox"/>
421	PRADO		WS GH				GATES 1 & 6 OPEN 1.0 FT. REM. GATES CLOSED <input type="checkbox"/>
420	SAN ANTONIO		WS GH				GATES CLOSED <input type="checkbox"/>
9-6 415	WHITTIER NARROWS RIO HONDO POOL	W. PIT	GH				LACFCO DIVERSION GATE OPEN      FT. GATE 1 OPEN      FT. GATES 2, 3, & 4 OPEN FT.      FT. <input type="checkbox"/>
		E. PIT					
		COMB.					
	SAN GABRIEL POOL	TELEMARK	GH				GATE # 8 OPEN 0.30 FT. <input type="checkbox"/>
		W. STAFF					
		E. STAFF					
COMB.							
429	PAINTED ROCK	RES: S T	XXXX	XXXX			GATES OPEN 0.5 FT HOOK; ANEMOMETER; TEMPERATURE; <input type="checkbox"/>
		B. PIT					
437	ALAMO	RES: S T	XXXX	XXXX			GATES CLOSED GATE NO. 3 BYPASS      CFS <input type="checkbox"/> HOOK; ANEMOMETER; TEMPERATURE; <input type="checkbox"/>

FIGURE 9-3



# RESERVOIR COMPUTATIONS

HOURLY     DAILY

DAM	TIME OF READING (IF DAILY)	DATE
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COMPUTED BY	CHECKED BY	DATA SOURCE
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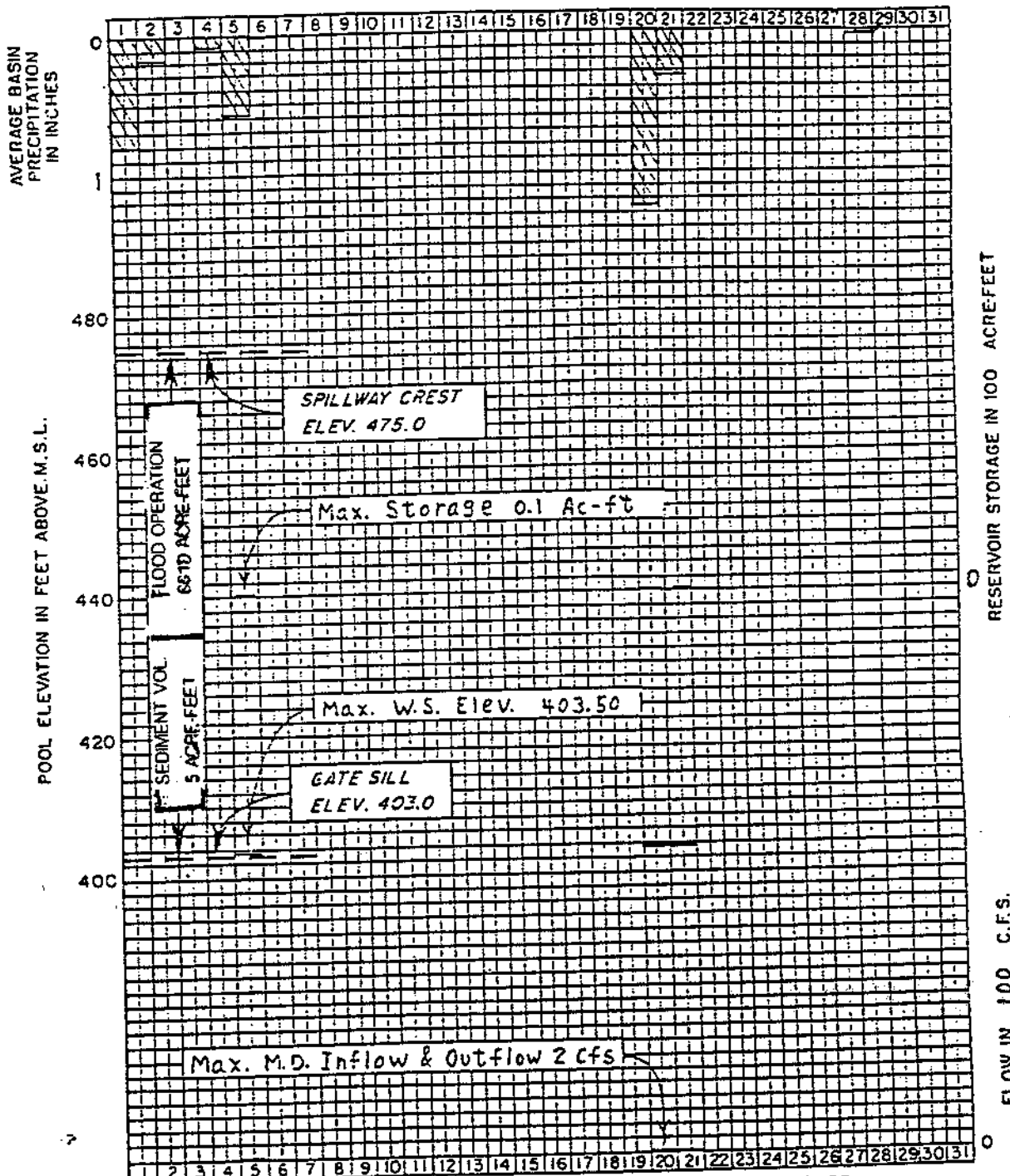
MR.	DA.	WATER SURFACE ELEV. FT.	STORAGE AC. FT.	GATE STEP NO.	INST. OUTFLOW			MRS.	STORAGE CHANGE		AV. OUTFLOW CFS	AV. INFLOW CFS	GATE SETTINGS FT.
					OUT-LETS CFS	DOWNSTREAM			ACRE- FEET	CFS			
						G. HT. FT.	FLOW CFS						
PREVIOUS REPORT													
	1												
	2												
	3												
	4												
	5												
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REMARKS	TOTAL
	MEAN





ENGCW-E-6



RESERVOIR STORAGE BASED ON SURVEY DATED SEPT 1969

MONTH OF JAN 1982

MONTHLY RESERVOIR OPERATION  
 CARBON CANYON FLOOD-CONTROL BASIN  
 SANTA ANA RIVER BASIN  
 DRAINAGE AREA 19.3 SQ. MILES  
 SOUTH PACIFIC DIVISION  
 LOS ANGELES DISTRICT

	ELEV	GROSS STORAGE (ACRE-FT.)
Conservation Pool		NONE
Flood Control Pool	4750	6610

Outlet Capacity at Full Pool 1,270 c.f.s.

NOTE: Although project is in the San Gabriel River Basin, flood flows are diverted into the Santa Ana River.

FILE NO. RO 10/82-01