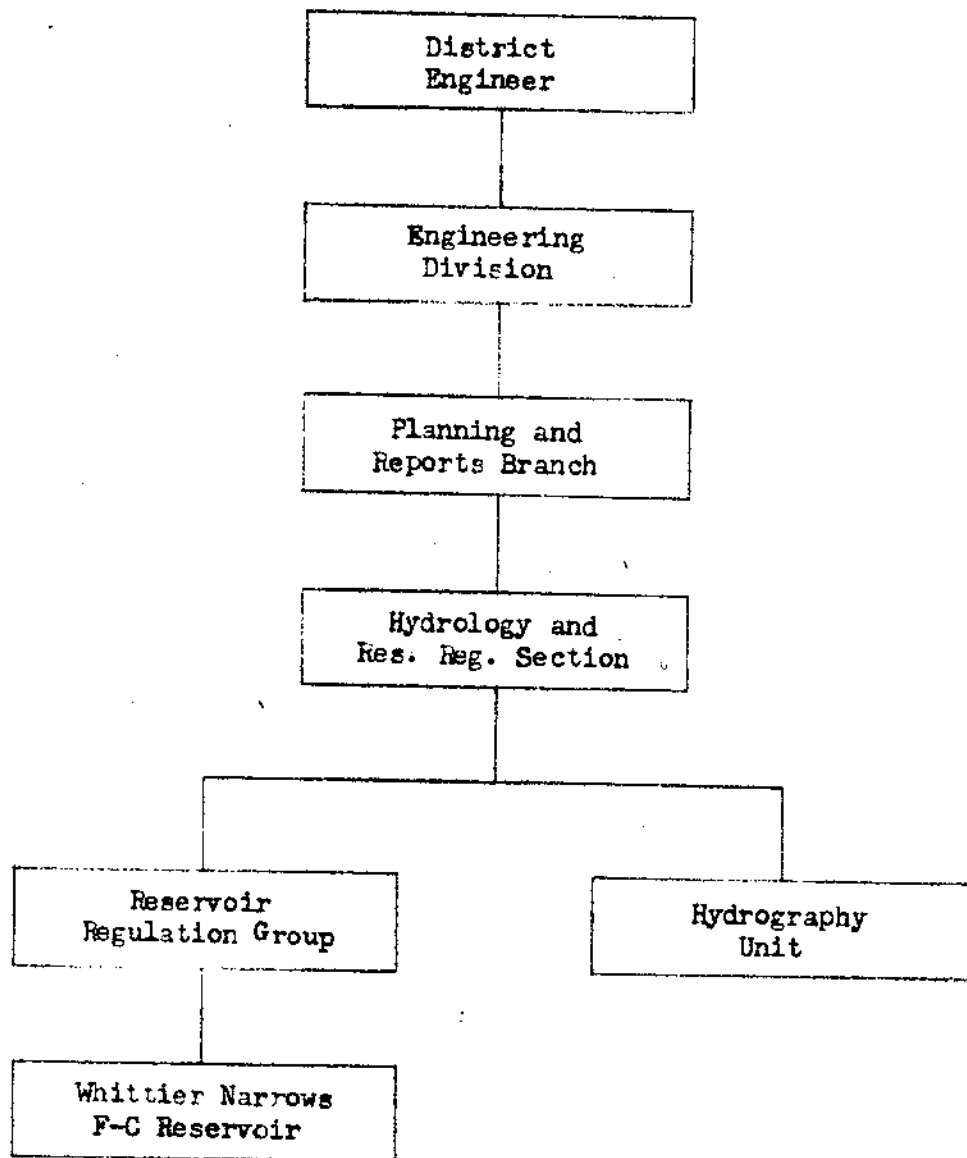


NORMAL ORGANIZATION FOR WHITTIER NARROWS RESERVOIR REGULATION



NOTE.--See plate B-2 for names and telephone numbers.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

NORMAL ORGANIZATION

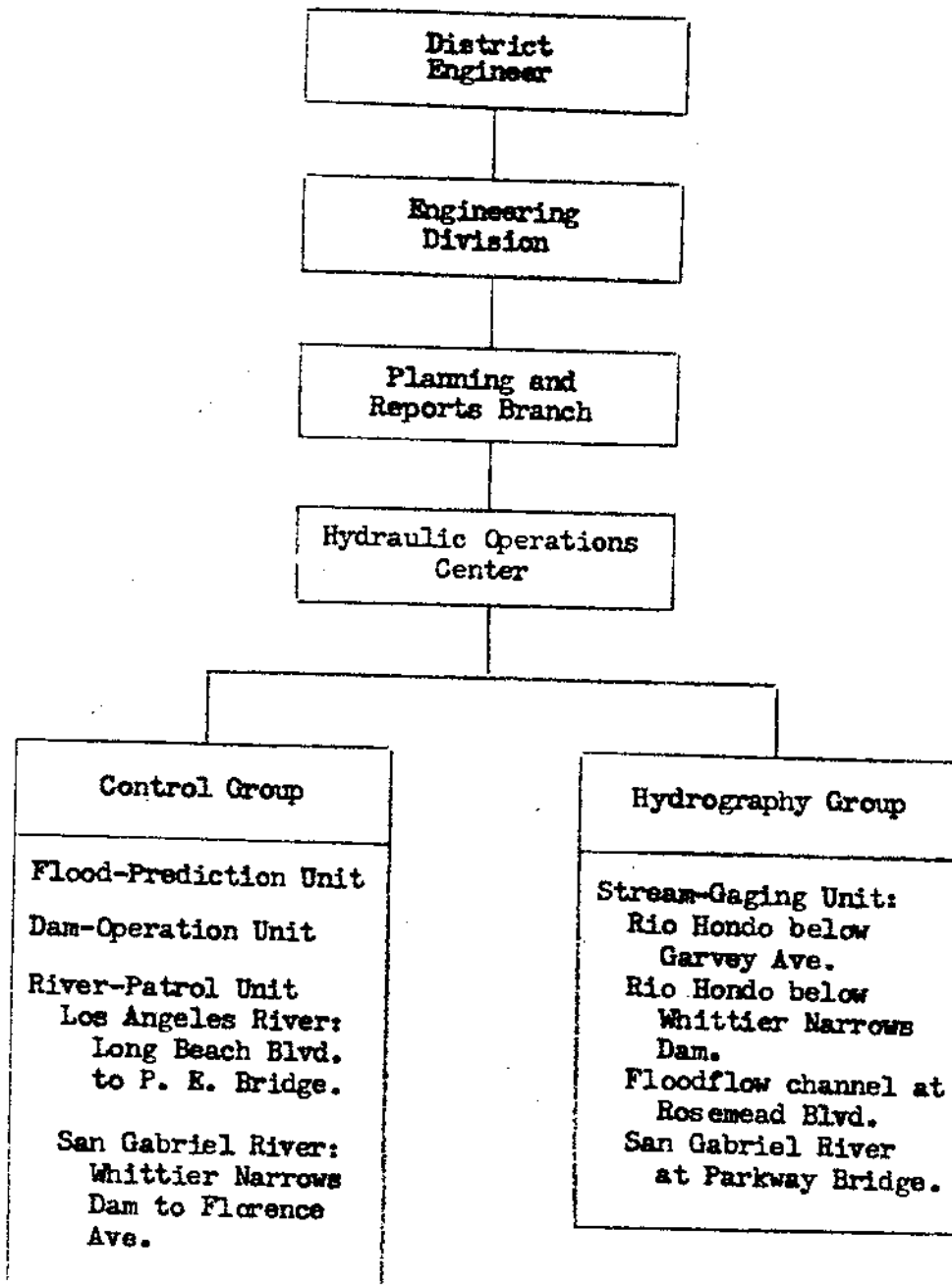
Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957  
PLATE B-1

WHITTIER NARROWS RESERVOIR, LOS ANGELES COUNTY DRAINAGE AREA  
 PERSONNEL CONCERNED WITH OPERATION DURING NORMAL PERIODS

TITLE	NAME	OFFICE PHONE	HOME PHONE
District Engineer	Newton, C. T., Col.	TUcker 1311, Ext. 311 After duty hours: TUcker 4760	NOrmandy 3-6613
Chief, Engineering Division	Thompson, H. W.	TUcker 1311, Ext. 493	DICKens 3-7062
Chief, Planning and Reports Branch	Cramer, S. F.	TUcker 1311, Ext. 502	SYcamore 4-5663
Chief, Hydrology and Res. Reg. Section	Tatum, F. E.	TUcker 1311, Ext. 491 After duty hours: TUcker 5141	CITrus 1-4772
Chief, Reservoir Regulation Group	Levin, G. B.	TUcker 1311, Ext. 345 After duty hours: TUcker 5141	ATLantic 0-9879
Chief, Hydrography Unit	Hauser, D. P.	TUcker 1311, Ext. 347 After duty hours: TUcker 5141	CLinton 7-2370
Dam Tender, Whittier Narrows F.-C. Reservoir	Stader, W. A.	Control house PARKview 1-8621	PARKview 1-8621

PLATE B-2

**ORGANIZATION DURING FLOOD EMERGENCIES FOR WHITTIER NARROWS  
RESERVOIR REGULATION**



NOTE.--See plate B-4 for  
names and telephone numbers.

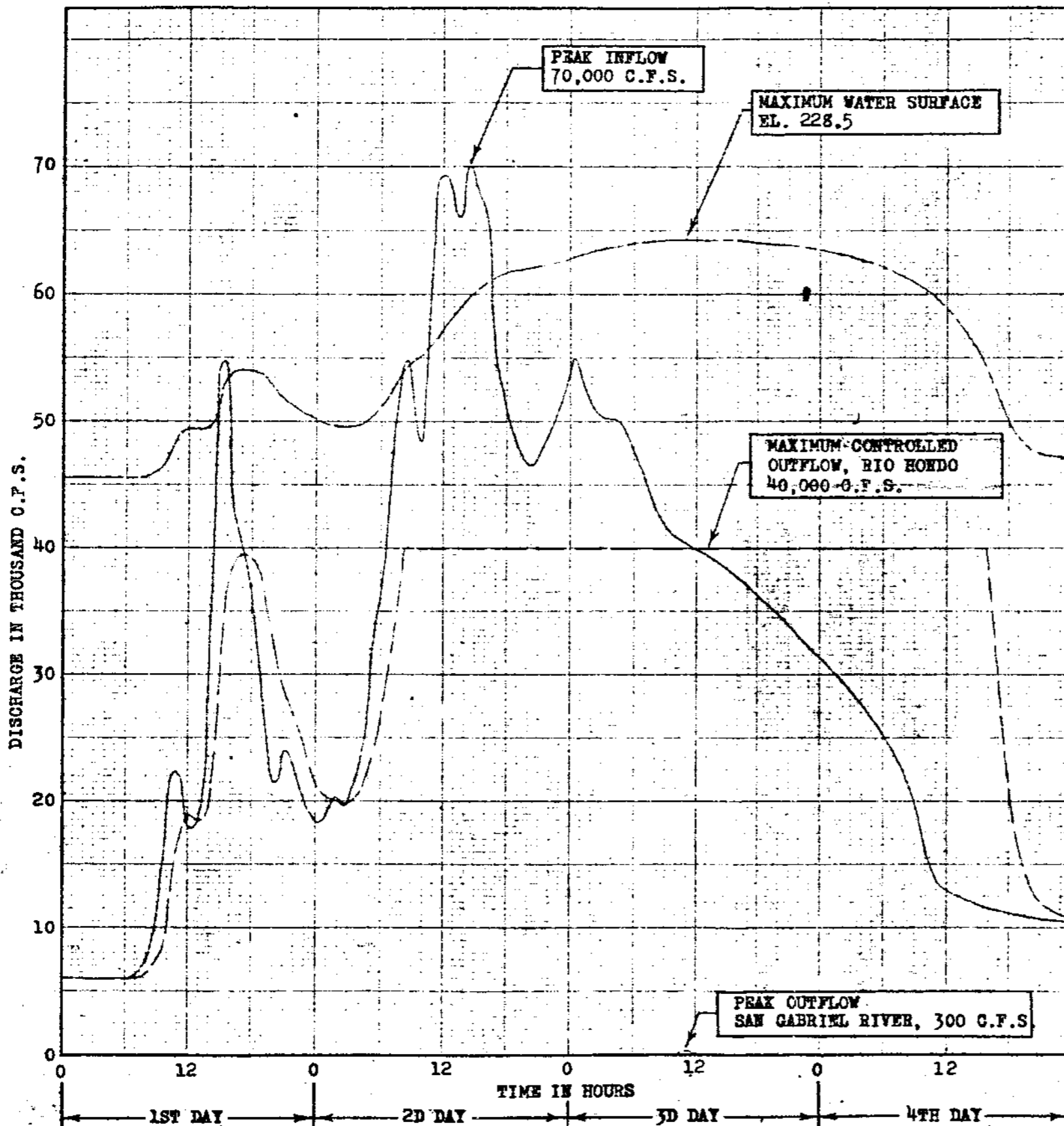
Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

ORGANIZATION DURING  
FLOOD EMERGENCIES

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

WHITTIER NARROWS RESERVOIR, LOS ANGELES COUNTY DRAINAGE AREA  
 PERSONNEL CONCERNED WITH OPERATION DURING FLOOD EMERGENCIES

TITLE	NAME	OFFICE PHONE	HOME PHONE
District Engineer	Newton, C. T., Col.	TUcker 1311, Ext. 311 After duty hours: TUcker 4760	NOrmandy 3-6613
Chief, Engineering Division	Thompson, H. W.	TUcker 1311, Ext. 493	DIckens 3-7062
Chief, Planning and Reports Branch	Cramer, S. F.	TUcker 1311, Ext. 502	SIcamore 4-5663
Chief, Hydraulic Operations Center	Tatum, F. E.	TUcker 1311, Ext. 491 After duty hours: TUcker 5141	CItrus 1-4772
Chief, Control Group	Levin, G. B.	TUcker 1311, Ext. 345 After duty hours: TUcker 5141	ATLantic 0-9879
Chief, Hydrography Group	Hauser, D. P.	TUcker 1311, Ext. 347 After duty hours: TUcker 5141	CLinton 7-2370



TOTAL DRAINAGE AREA.....	554 SQ. MI.
RAINFALL, MAXIMUM 24-HOUR.....	13.10 INCHES
RAINFALL, TOTAL STORM.....	18.20 INCHES
RUNOFF, MAXIMUM 24-HOUR.....	{ 199,000 AC.-FT. 3.70 INCHES
RUNOFF, MAXIMUM 4-DAY.....	{ 250,000 AC.-FT. 8.50 INCHES
RUNOFF, TOTAL SURFACE <sup>(1)</sup> .....	{ 198,000 AC.-FT. 6.70 INCHES

WATER SURFACE ELEVATION  
IN FEET ABOVE M.S.L.

(1) EXCLUDES BASE FLOW

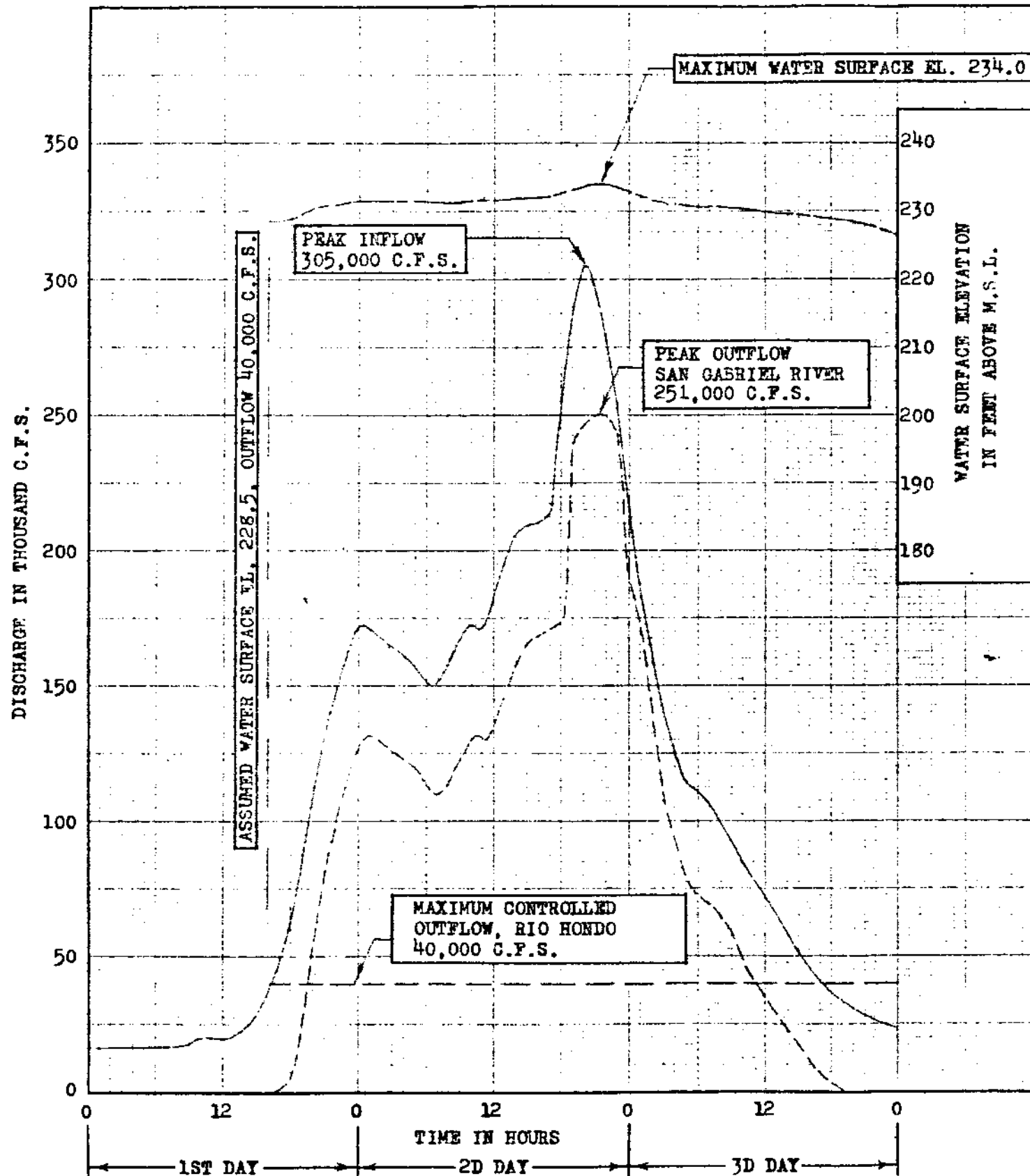
Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

RESERVOIR DESIGN  
FLOOD ROUTING

Ultimate Operation

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

TOTAL DRAINAGE AREA.....	554 SQ. MI.
RAINFALL, MAXIMUM 24-HOUR.....	17.40 INCHES
RAINFALL, TOTAL STORM.....	26.10 INCHES
RUNOFF, MAXIMUM 24-HOUR.....	406,300 AC.-FT. 13.80 INCHES
RUNOFF, MAXIMUM 4-DAY.....	690,100 AC.-FT. 23.40 INCHES

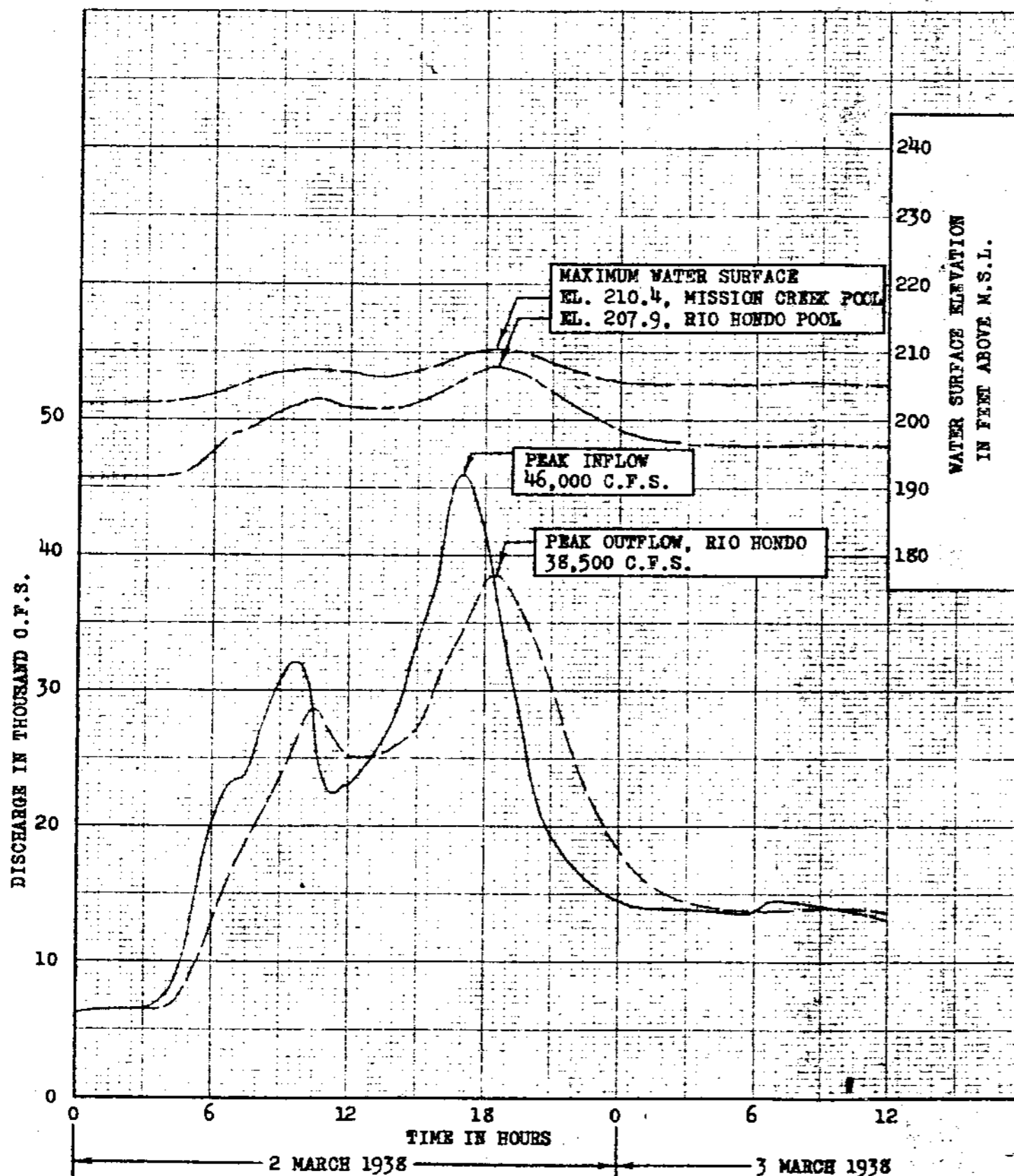


Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

SPILLWAY DESIGN  
 FLOOD ROUTING  
 Ultimate Operation

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957

TOTAL DRAINAGE AREA.....554 SQ. MI.  
 RAINFALL, MAXIMUM 24-HOUR.....0.30 INCHES  
 RAINFALL, TOTAL STORM.....10.80 INCHES  
 RUNOFF, MAXIMUM 24-HOUR..... $\left\{ \begin{array}{l} 48,400 \text{ AC.-FT.} \\ 1.60 \text{ INCHES} \end{array} \right.$



Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows P.-C. Reservoir  
 MODIFIED 2-3 MARCH 1938  
 FLOOD ROUTING  
 Ultimate Operation  
 Office of the District Engineer  
 Los Angeles, California.  
 To accompany report dtd. 1 Oct. 1957

**WHITTIER NARROWS F. C. B. OPERATION REPORT**  
**San Gabriel Spillway**

Month  
Year

Day	RES. W. S. ELEV. GAGE READING IN FEET			OUTLET CHANNEL	INFLOW CHANNEL	TAINTER GATE OPERATION GATE OPENING IN FEET											OBSERVER	REMARKS	
	Time	Type of Gage	Gage reading in feet	Time San Gabriel at Beverly G. Mt.	Time San Gabriel at Parkway G. Mt.	Time	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9				

PLATE B-8





RAINFALL REPORTING NETWORK

OBSERVER'S DAILY REPORTS

Station:					Month:		Year:		
Day	Normal time	Exact time	Reading	Emp- tied	Seasonal total	Temperature		Observer	Remarks
						Wet	Dry		
1	0800								
2	0800								
3	0800								
4	0800								
5	0800								
6	0800								
7	0800								
8	0800								
9	0800								
10	0800								
11	0800								
12	0800								
13	0800								
14	0800								
15	0800								
16	0800								
17	0800								
18	0800								
19	0800								
20	0800								
21	0800								
22	0800								
23	0800								
24	0800								
25	0800								
26	0800								
27	0800								
28	0800								
29	0800								
30	0800								
31	0800								
<b>TOTAL</b>									

SPL Form 31  
1 Sep 51

RESERVOIR OPERATION REPORT

Date \_\_\_\_\_ 19 \_\_\_\_

Hour \_\_\_\_\_

Radio call sign	Dam	Time of reading	Reservoir water-surface elevation	Outflow gage height	Rainfall		Gates at step No.	Remarks
					Since last report	Season total		
			<u>Ft, msl</u>	<u>Feet</u>	<u>Inches</u>	<u>Inches</u>		
WUK 424	Sepulveda							
WUK 410	Hansen		West East Comb					
WUK 423	Santa Fe							
WUK 405	Brea							
WUK 431	Fullerton							
WUK 419	Prado							
WUK 415	San Antonio							
WUK 417	Whittier Narrows	Rio Hondo Pool	West East Comb					LAC FCD Diversion Gate open _____ ft.
		Mission Creek Pool			_____	_____	_____	Upper Gate open _____ ft. Lower Gate open _____ ft.
		San Gabriel Pool			_____	_____		
		Inflow Gaging Station						
				Gage Height-Feet	Time of Reading			
Alhambra Wash near Klingerman St.				_____	_____			
Rio Hondo below Garvey Blvd.				_____	_____			
San Gabriel River at Parkway Bridge				_____	_____			

PLATE B-11





**PRECIPITATION REPORTS**

HOURLY

DAILY

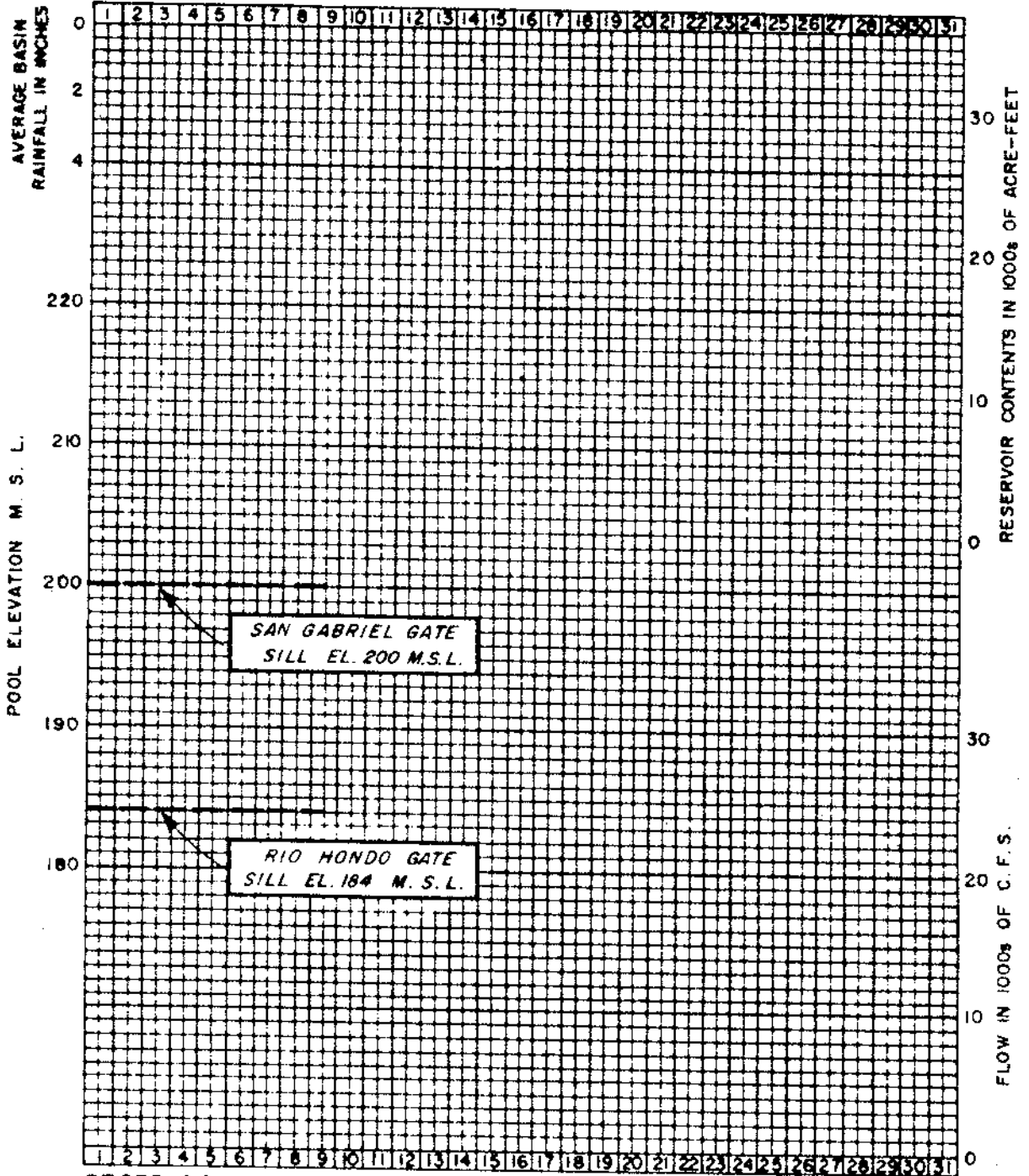
DATE

HOUR	DAY	AMT	SEAS	SNOW	AMT	SEAS	SNOW	AMT	SEAS	SNOW	AMT	SEAS	SNOW	AMT	SEAS	SNOW	AMT	SEAS	SNOW
PREV. TOT.																			
0100	1																		
0200	2																		
0300	3																		
0400	4																		
0500	5																		
0600	6																		
0700	7																		
0800	8																		
0900	9																		
1000	10																		
1100	11																		
1200	12																		
1300	13																		
1400	14																		
1500	15																		
1600	16																		
1700	17																		
1800	18																		
1900	19																		
2000	20																		
2100	21																		
2200	22																		
2300	23																		
2400	24																		
	25																		
	26																		
	27																		
	28																		
	29																		
	30																		
	31																		
TOTAL																			

PLATE B-14

SPL FORM 9 Jan 57 277

ENKW-51



RESERVOIR STORAGE BASED ON SURVEY DATED MAR. 1957

MONTH OF 19

MONTHLY RESERVOIR OPERATION  
 WHITTIER NARROWS FLOOD-CONTROL BASIN  
 SAN GABRIEL RIVER BASIN  
 D. A. 554 SQ. MILES

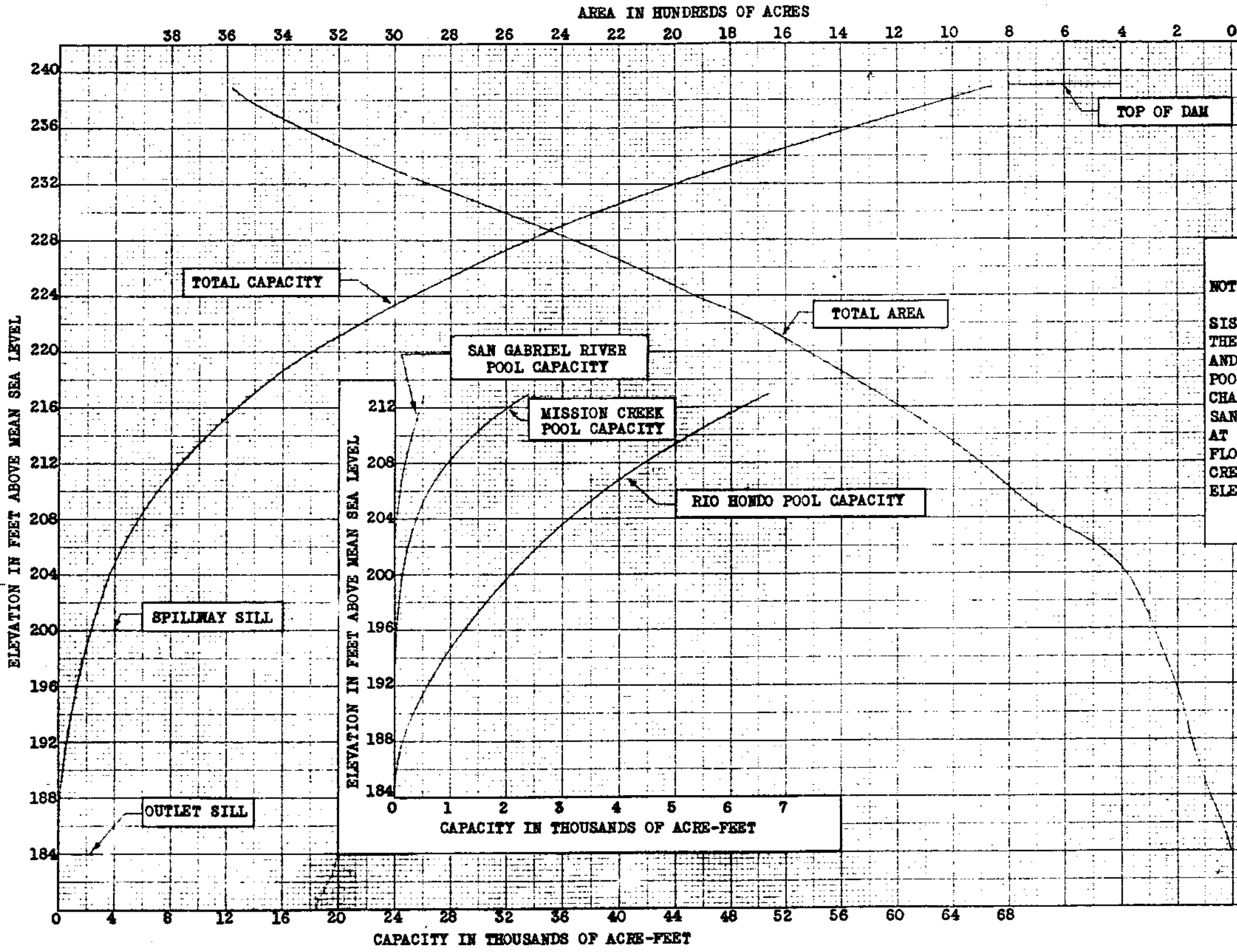
	ELEVATION M S L	GROSS STORAGE AC-FT
Conservation Pool		NONE
Full Pool	229	36,200 *

Outlet Capacity at Full Pool 74,700 c f s

OFFICE OF THE DISTRICT ENGINEER  
 LOS ANGELES, CALIFORNIA

\* Rio Hondo Outlet

FILE NO RO 07/



**NOTE:**  
 WHITTIER NARROWS RESERVOIR CONSISTS OF THREE POOLS AT LOW STAGES, THE SAN GABRIEL, THE MISSION CREEK, AND THE RIO HONDO. THESE THREE POOLS ARE CONNECTED BY A FLOODFLOW CHANNEL WITH THE INVERT BETWEEN THE SAN GABRIEL AND MISSION CREEK POOLS, AT ELEVATION 208. THE INVERT OF THE FLOODFLOW CHANNEL BETWEEN THE MISSION CREEK AND THE RIO HONDO POOLS IS AT ELEVATION 197.50.

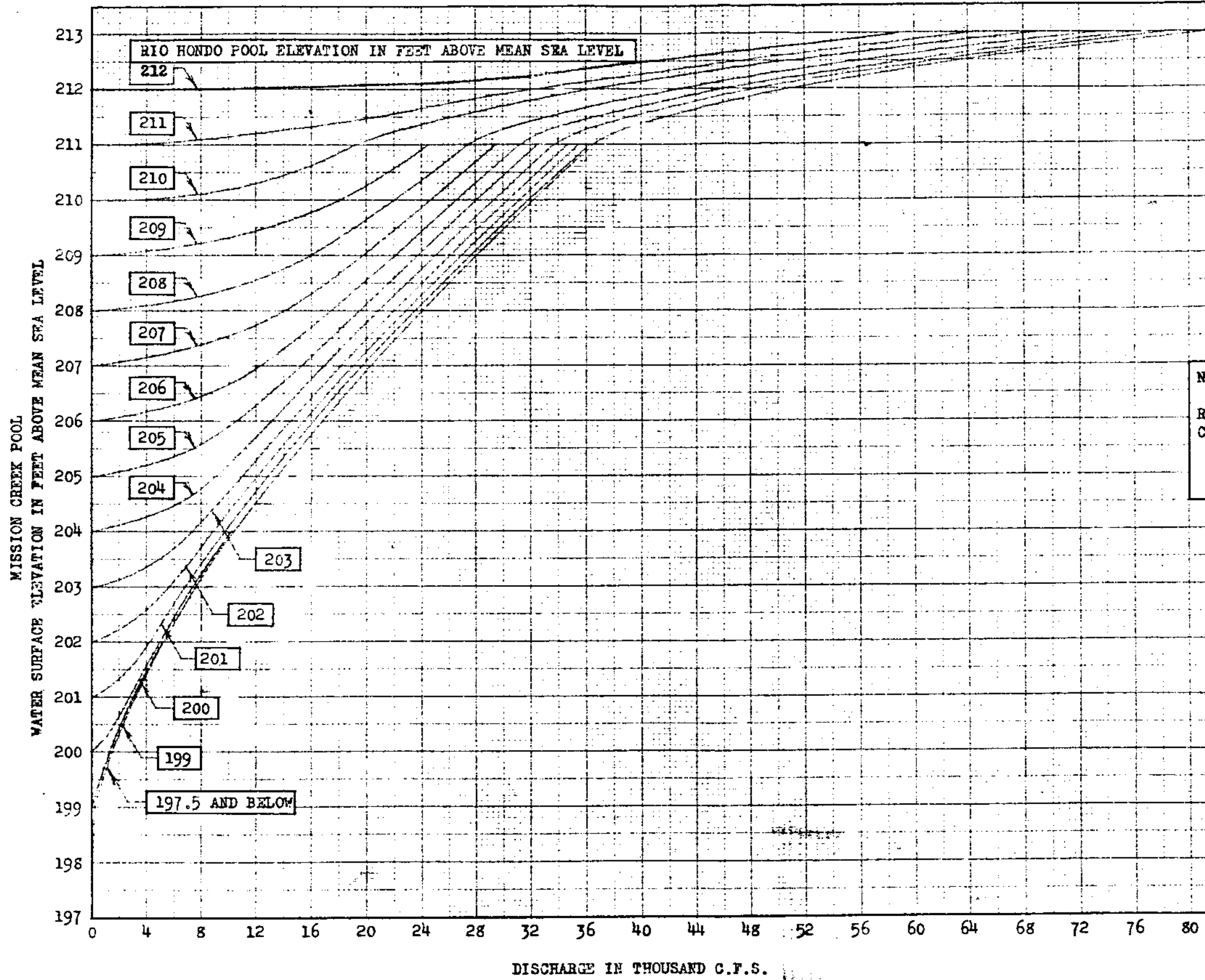
Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows P.-C. Reservoir

**AREA AND CAPACITY CURVES**

Based on original survey of Dec. 1948  
 and bottom resurvey ending Mar. 1957

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dt 1 Oct. 1957





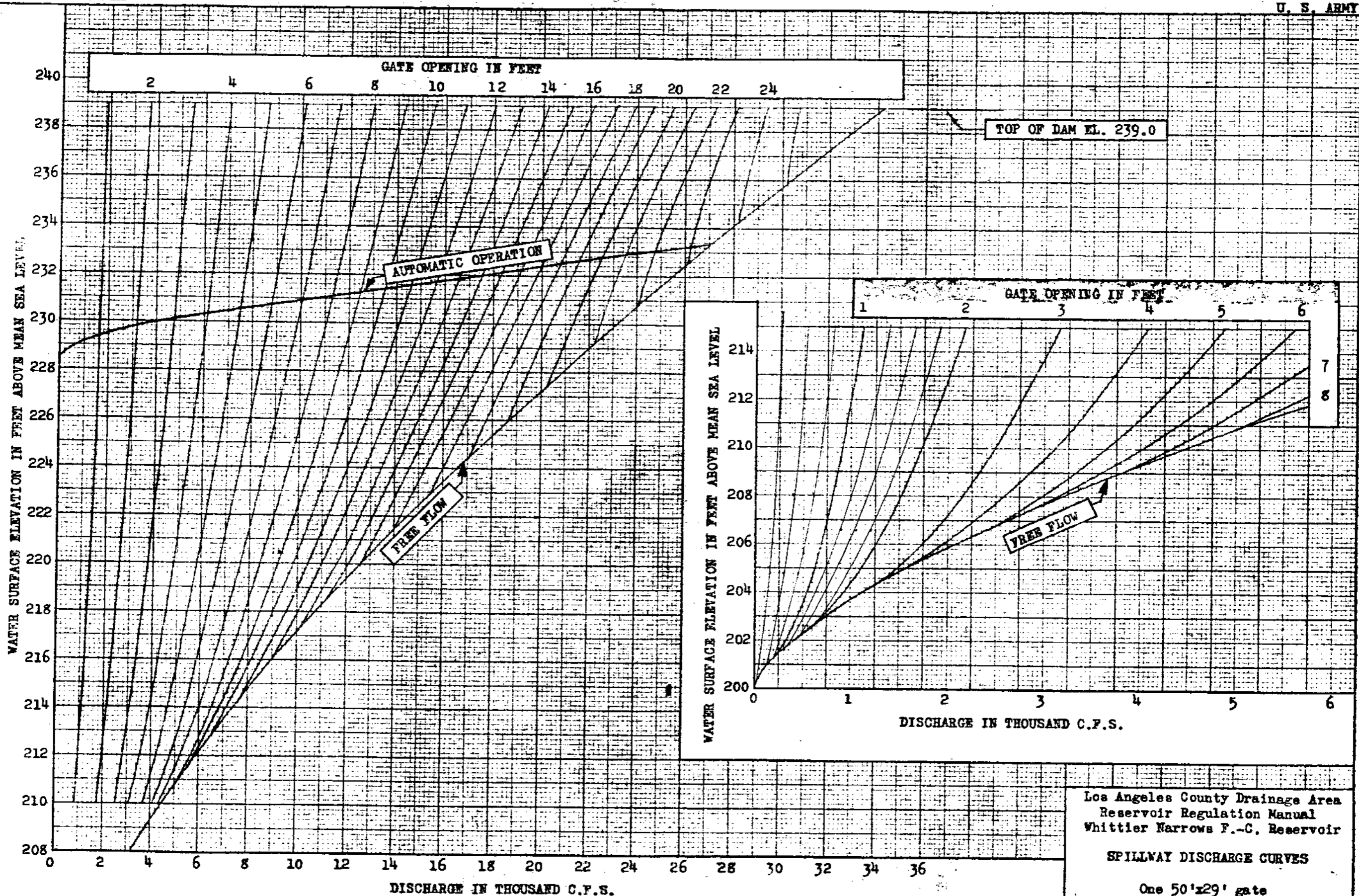
NOTE:  
 CURVES INCLUDE DISCHARGE OVER  
 ROSEMEAD BOULEVARD FOR MISSION  
 CREEK POOL ABOVE ELEVATION 211.0.

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

RATING CURVES

Flood flow channel at Rosemead Blvd.

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957



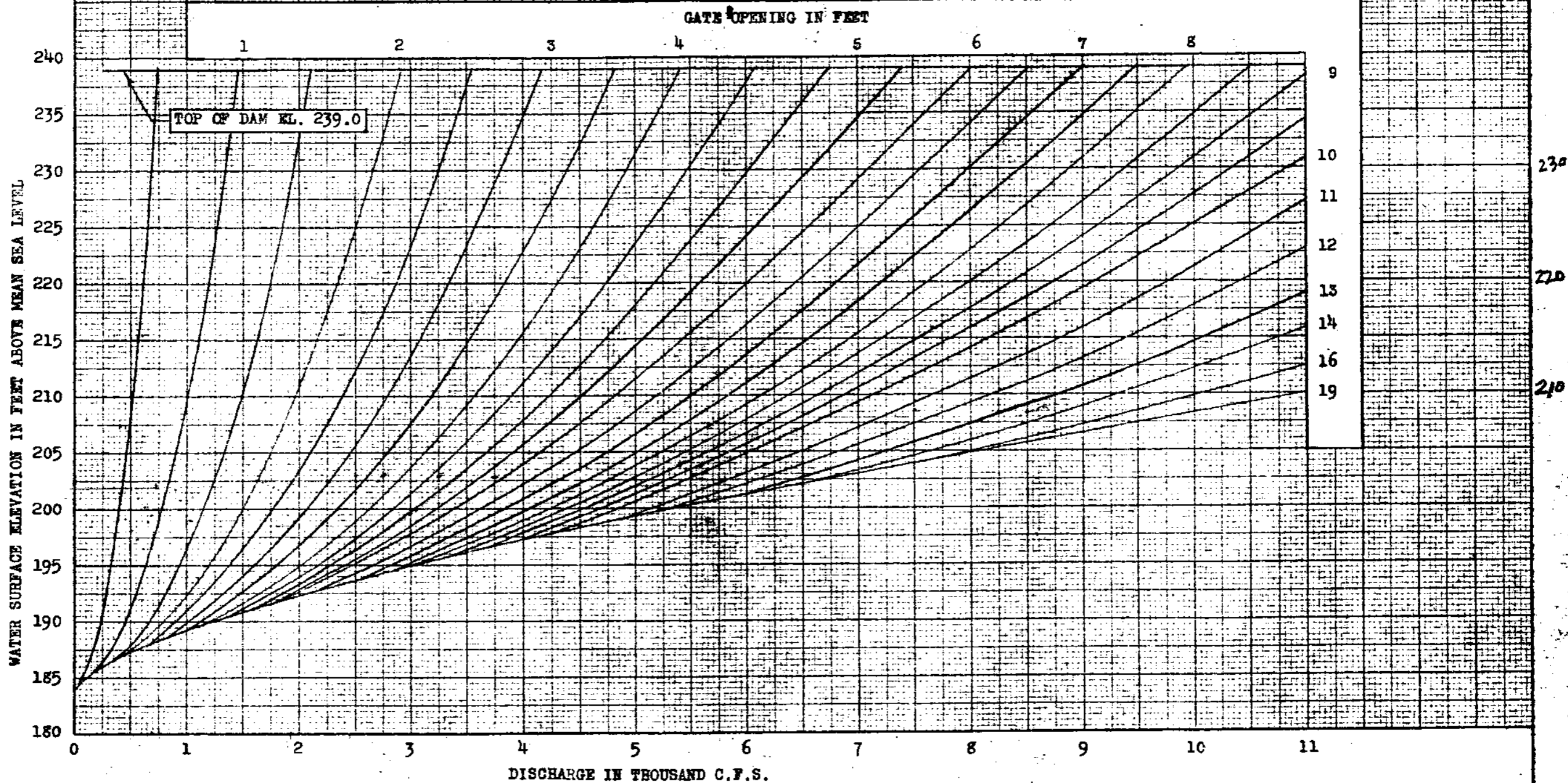
NOTE:  
 TO OBTAIN TOTAL SPILLWAY DISCHARGE, ADD DISCHARGES FOR EACH OF THE NINE IDENTICAL GATES.

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

SPILLWAY DISCHARGE CURVES

One 50'x29' gate

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957



NOTE:  
 TO OBTAIN TOTAL OUTLET DISCHARGE, ADD DISCHARGES FOR  
 EACH OF THE FOUR IDENTICAL GATES.

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

OUTLET DISCHARGE CURVES.

One 30' x 19' gated outlet

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtg 11 Oct. 1957

OVERTOPPING DEPTH 12.75 FEET

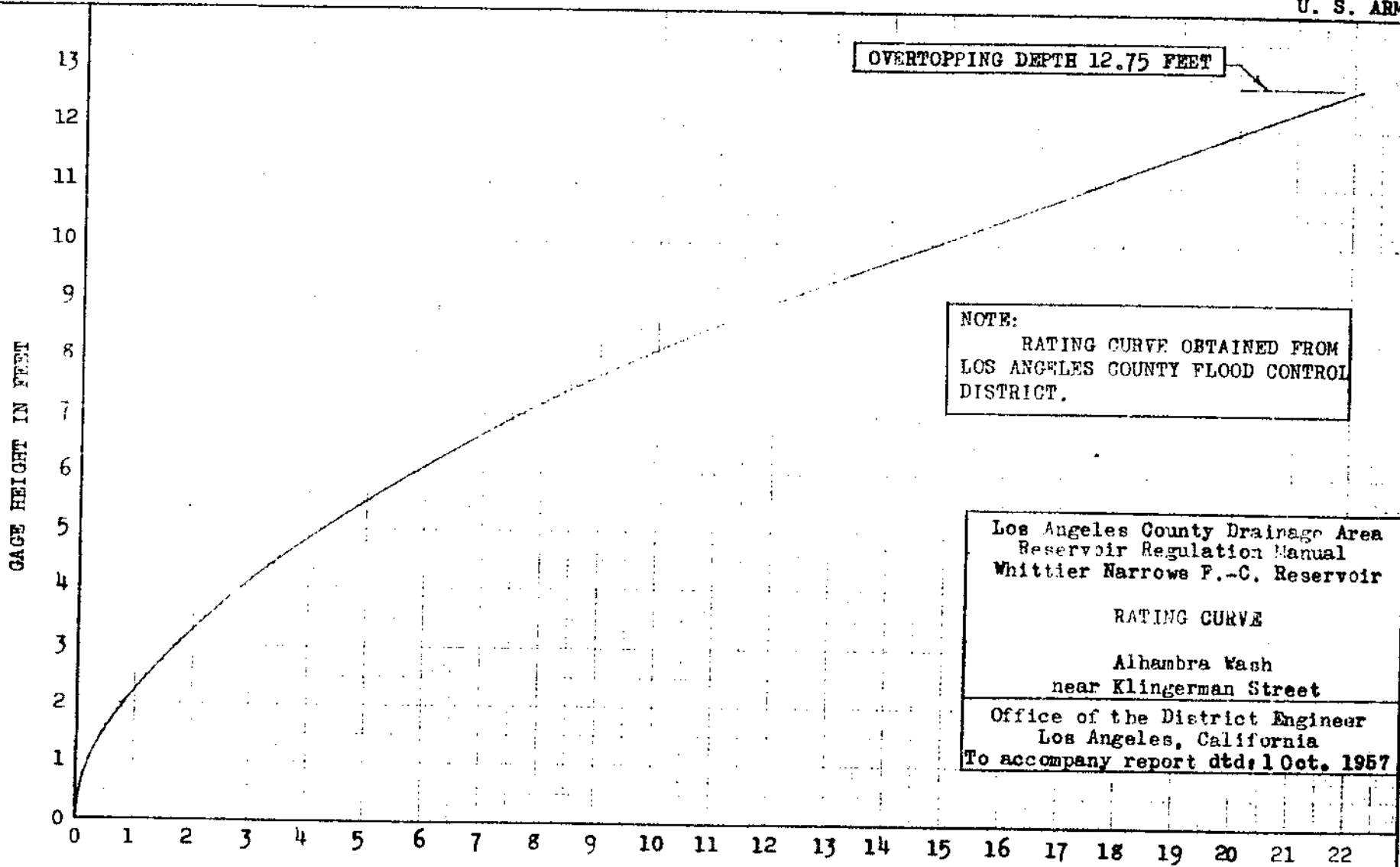
NOTE:  
RATING CURVE OBTAINED FROM  
LOS ANGELES COUNTY FLOOD CONTROL  
DISTRICT.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows P.-C. Reservoir

RATING CURVE

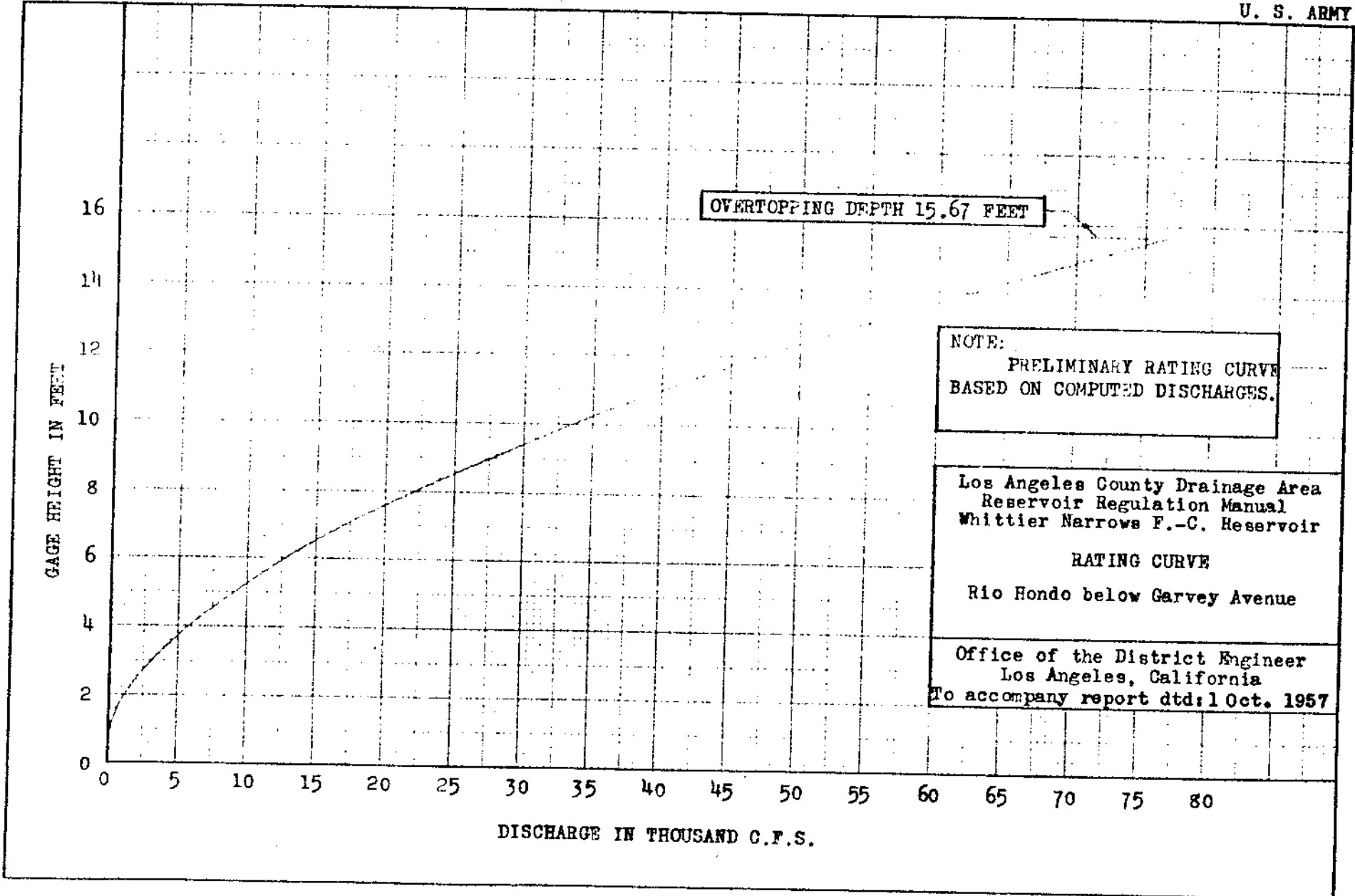
Alhambra Wash  
near Klingerman Street

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957



DISCHARGE IN THOUSAND C.F.S.

PLATE B-20



OVERTOPPING DEPTH 15.67 FEET

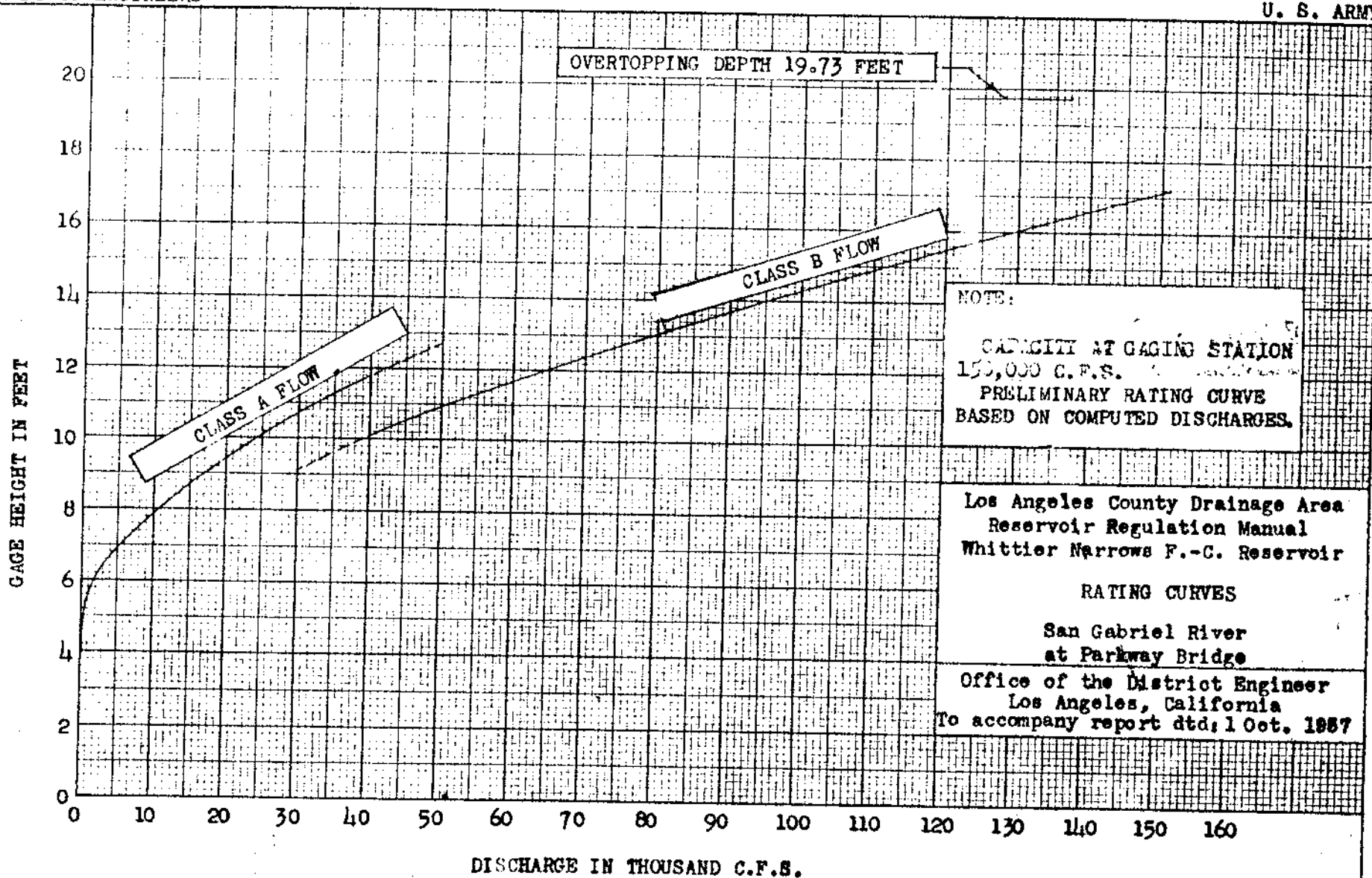
NOTE:  
PRELIMINARY RATING CURVE  
BASED ON COMPUTED DISCHARGES.

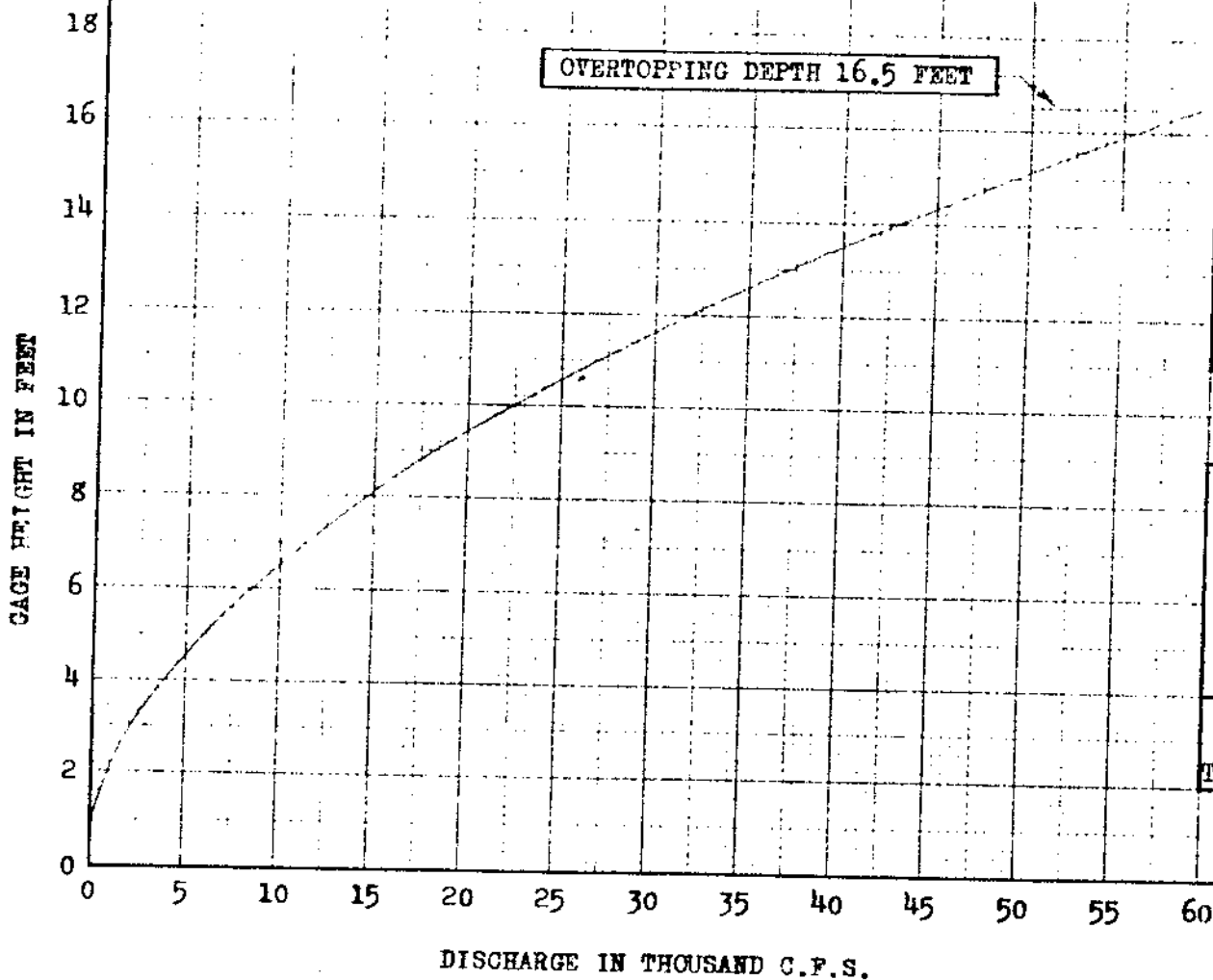
Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir  
  
RATING CURVE  
  
Rio Hondo below Garvey Avenue

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

PLATE B-21

DISCHARGE IN THOUSAND C.F.S.

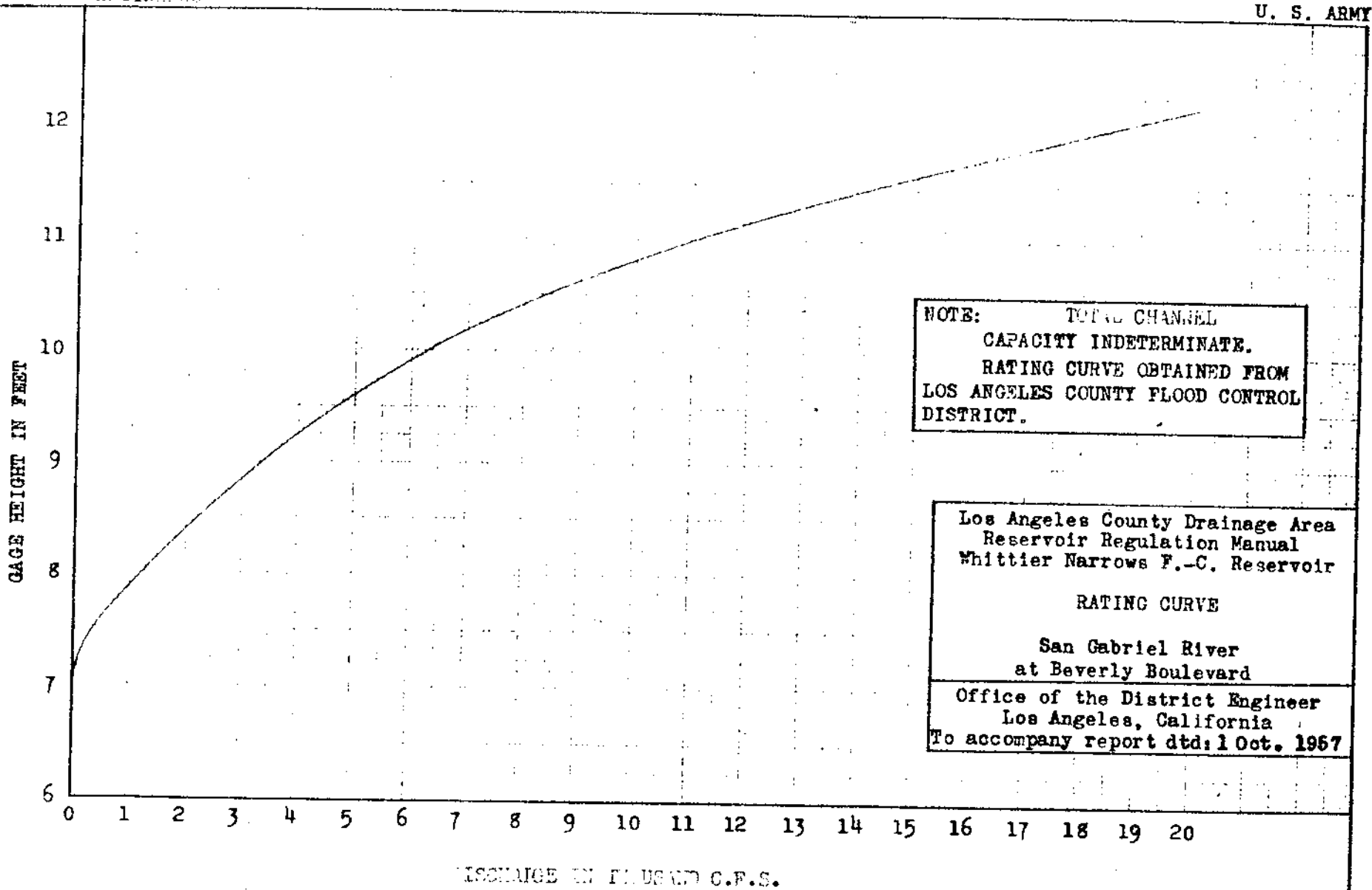




NOTE:  
PRELIMINARY RATING CURVE  
BASED ON COMPUTED DISCHARGES.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir  
  
RATING CURVE  
  
Rio Hondo  
below Whittier Narrows Dam

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957



NOTE: TOTAL CHANNEL  
CAPACITY INDETERMINATE.  
RATING CURVE OBTAINED FROM  
LOS ANGELES COUNTY FLOOD CONTROL  
DISTRICT.

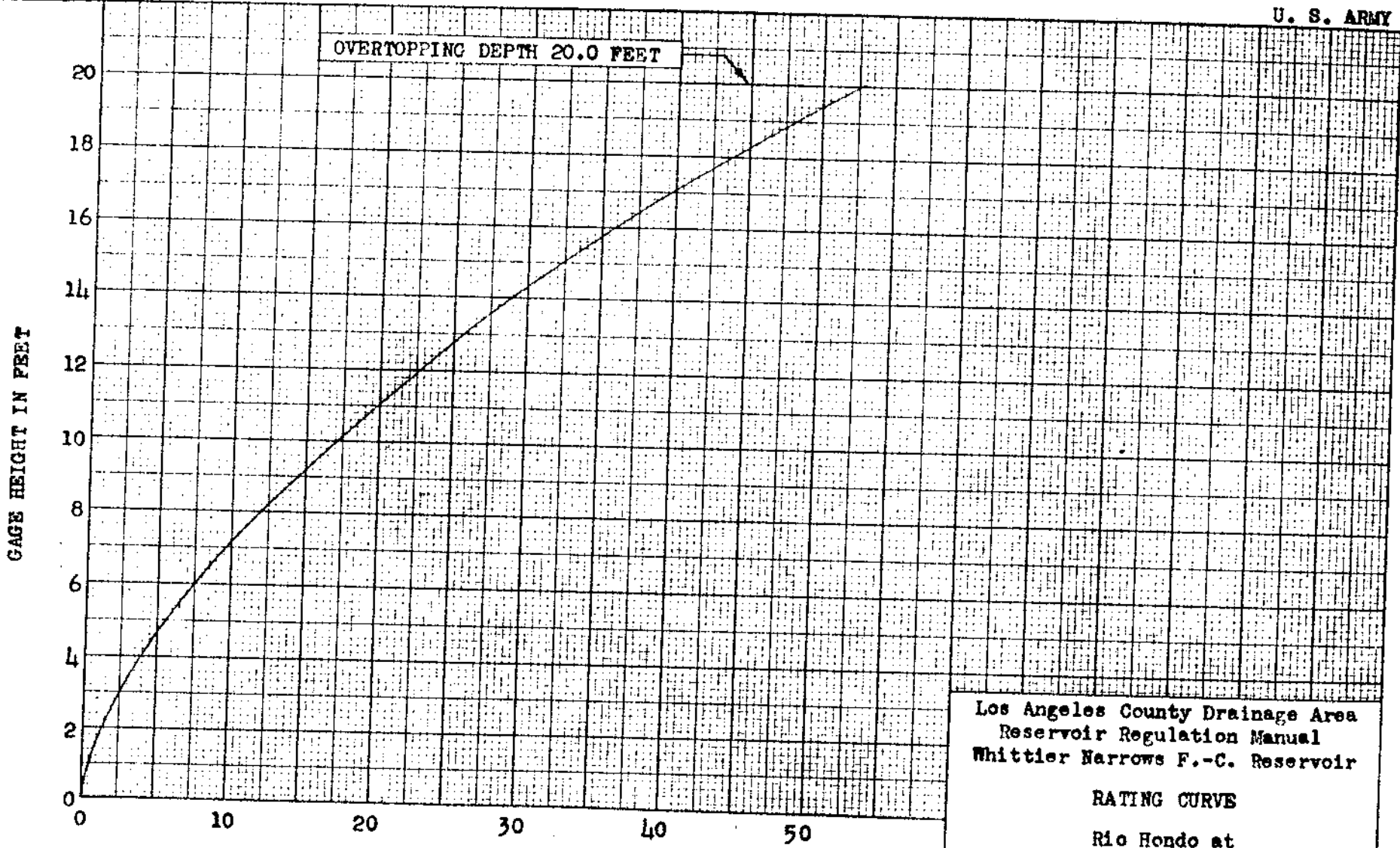
Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

RATING CURVE

San Gabriel River  
at Beverly Boulevard

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1967





OVERTOPPING DEPTH 20.0 FEET

GAGE HEIGHT IN FEET

DISCHARGE IN THOUSAND C.F.S.

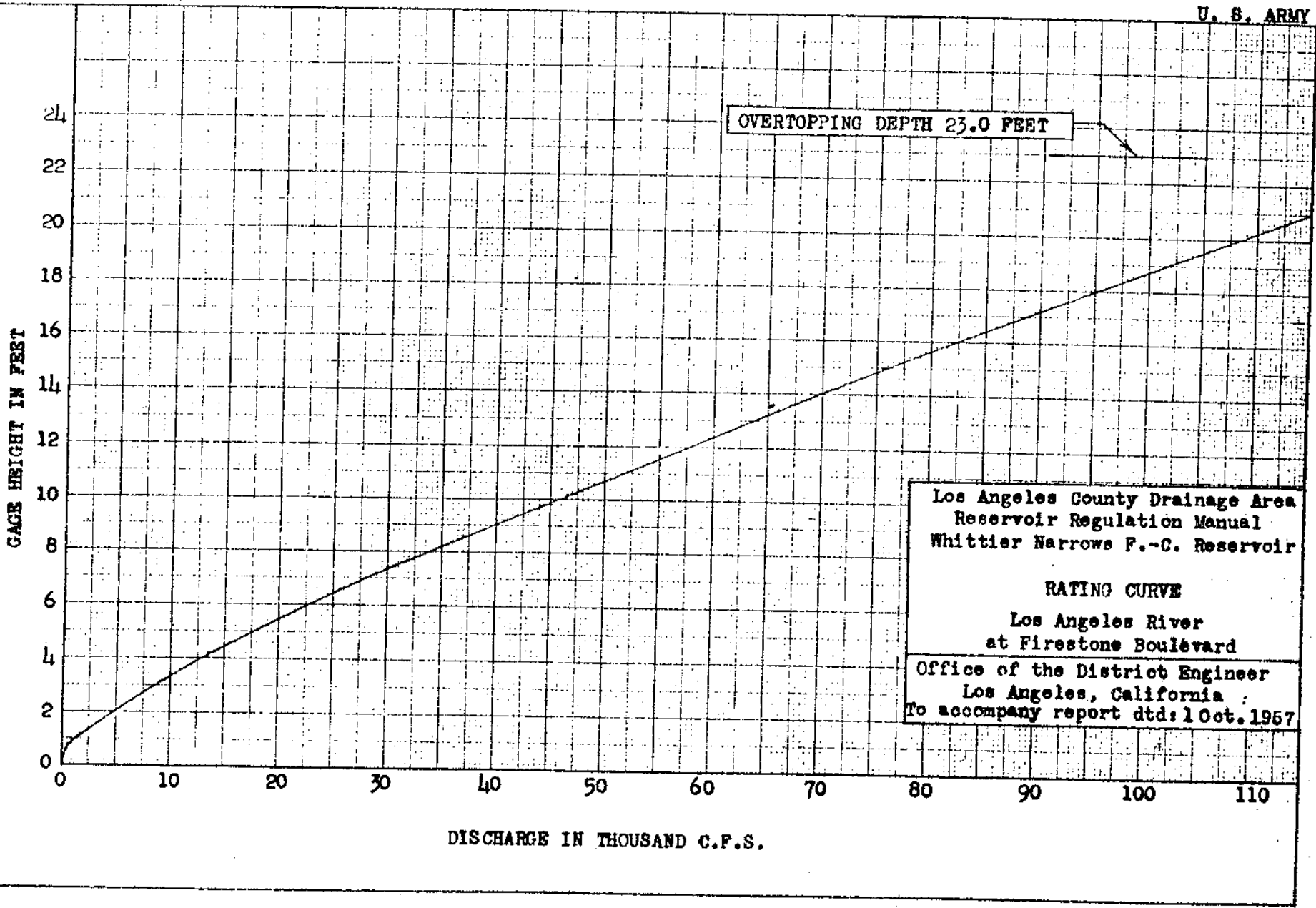
Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

RATING CURVE

Rio Hondo at  
Stewart and Gray Road

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

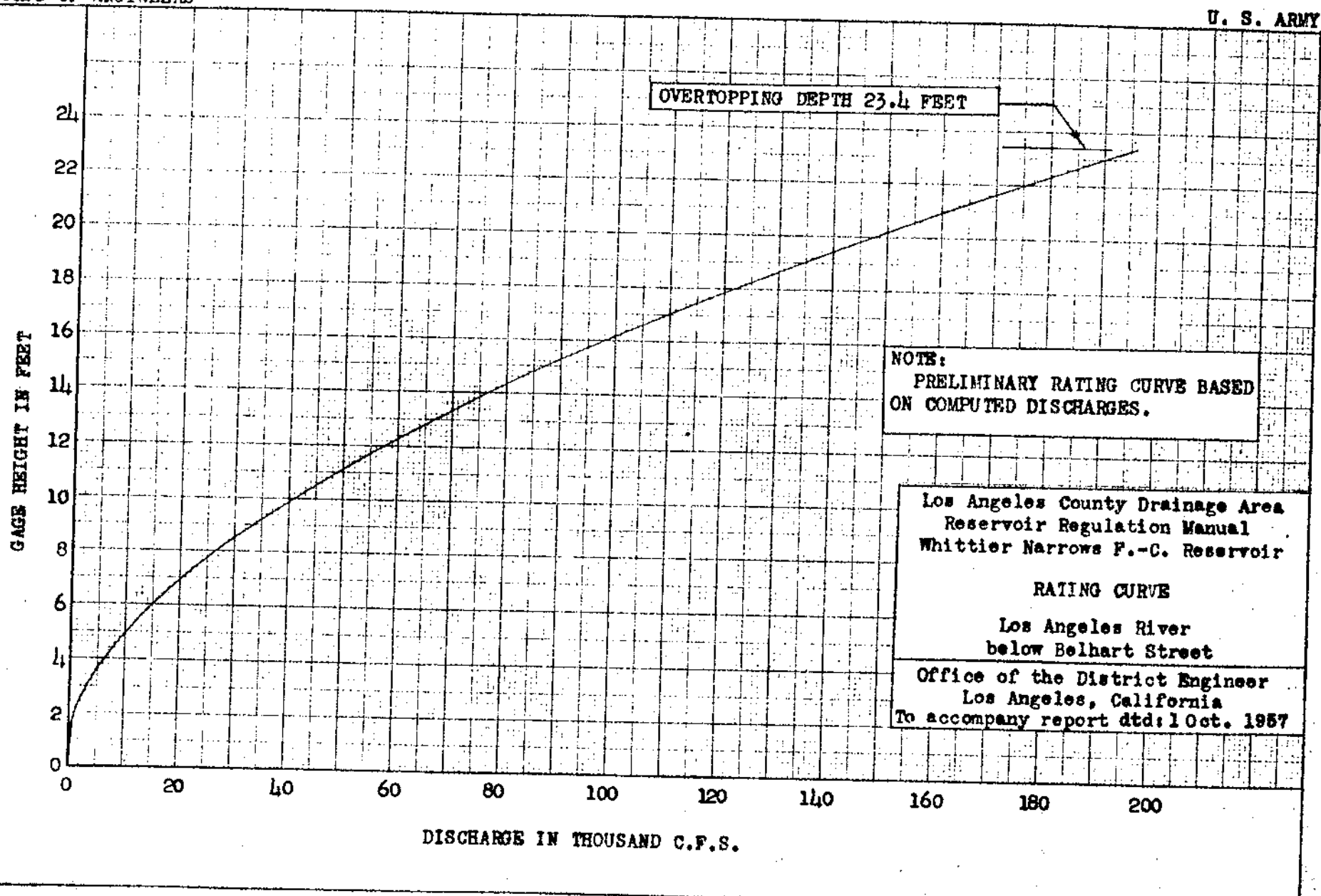
PLATE B-25

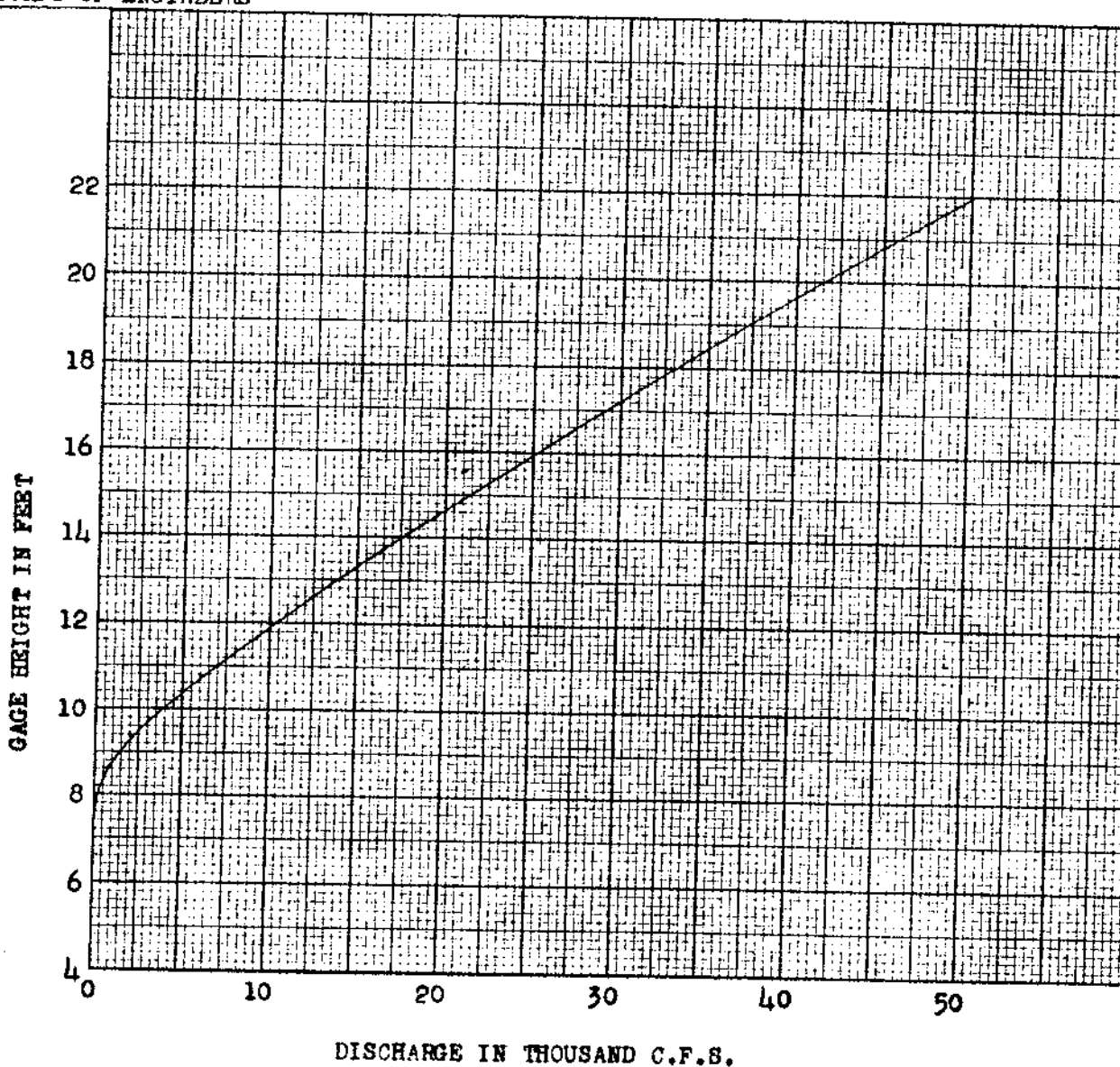


Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

RATING CURVE  
Los Angeles River  
at Firestone Boulevard

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957





NOTE:  
CHANNEL CAPACITY APPROX-  
IMATELY 50,000 C.F.S.  
RATING CURVE OBTAINED FROM  
LOS ANGELES COUNTY FLOOD  
CONTROL DISTRICT.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir  
  
RATING CURVE  
San Gabriel River  
at Florence Avenue

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

PLATE B-28

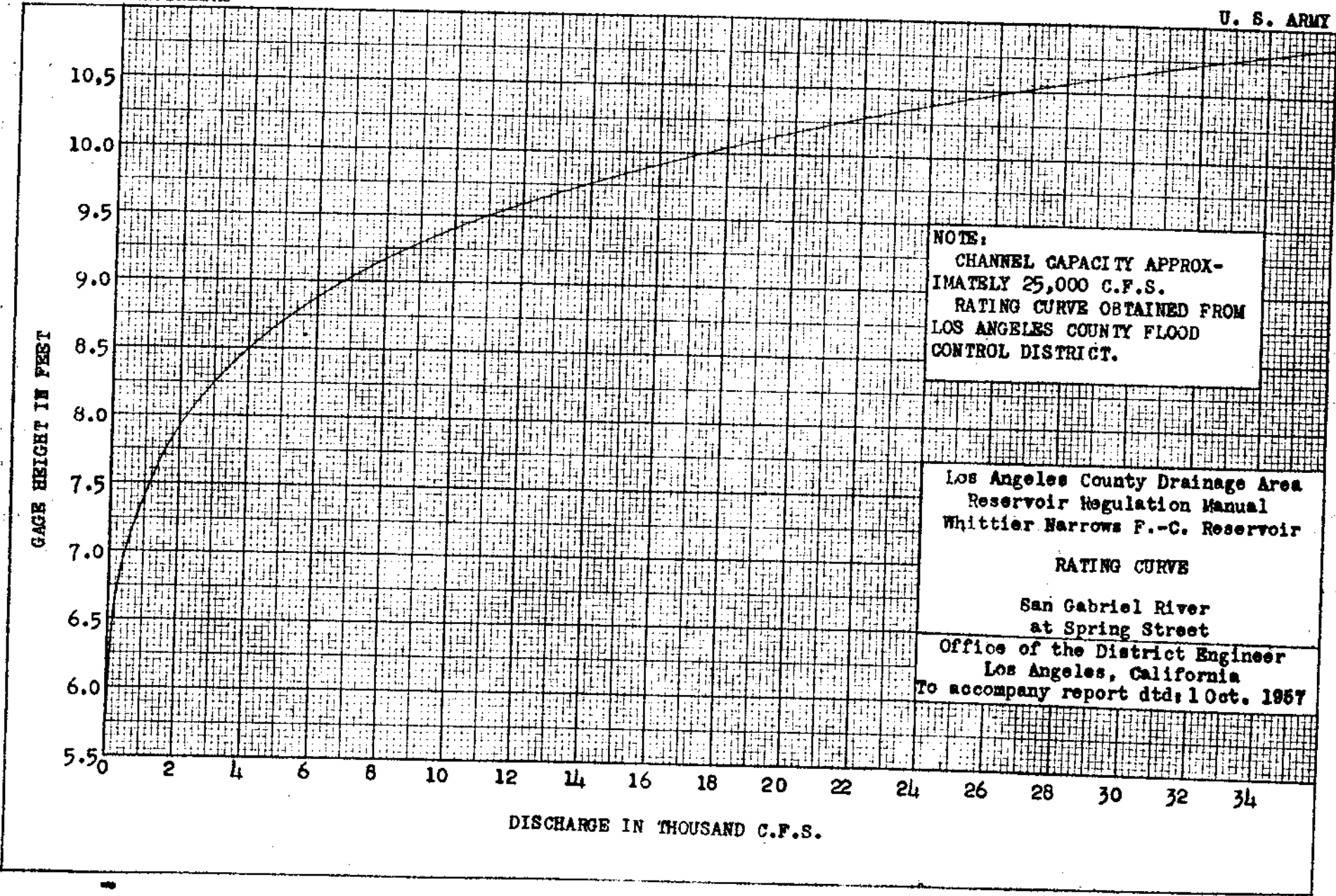
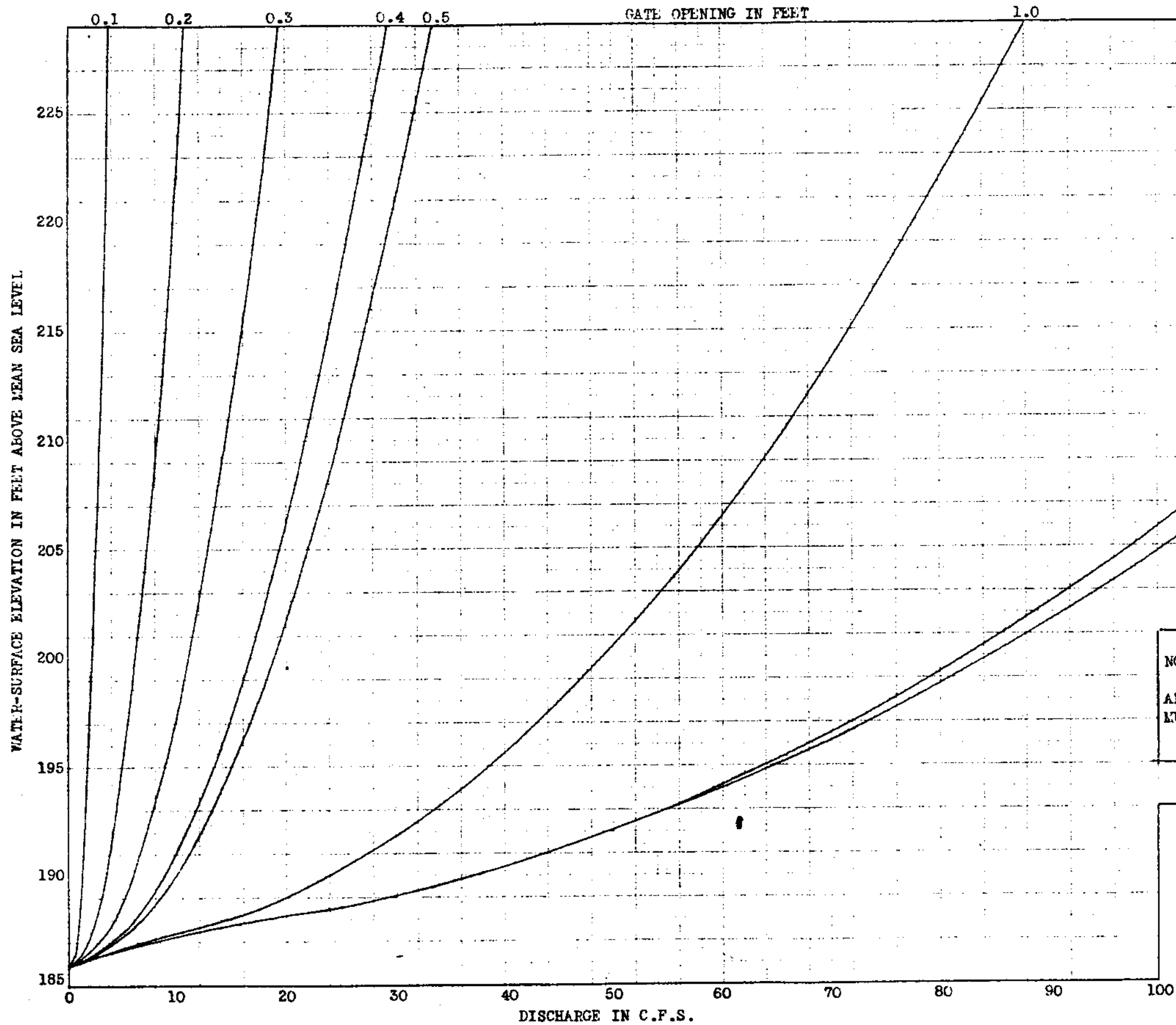


PLATE B-29



NOTE:  
 FOR CURVES TO BE  
 APPLICABLE, THE LOWER 30" GATE  
 MUST BE OPEN.

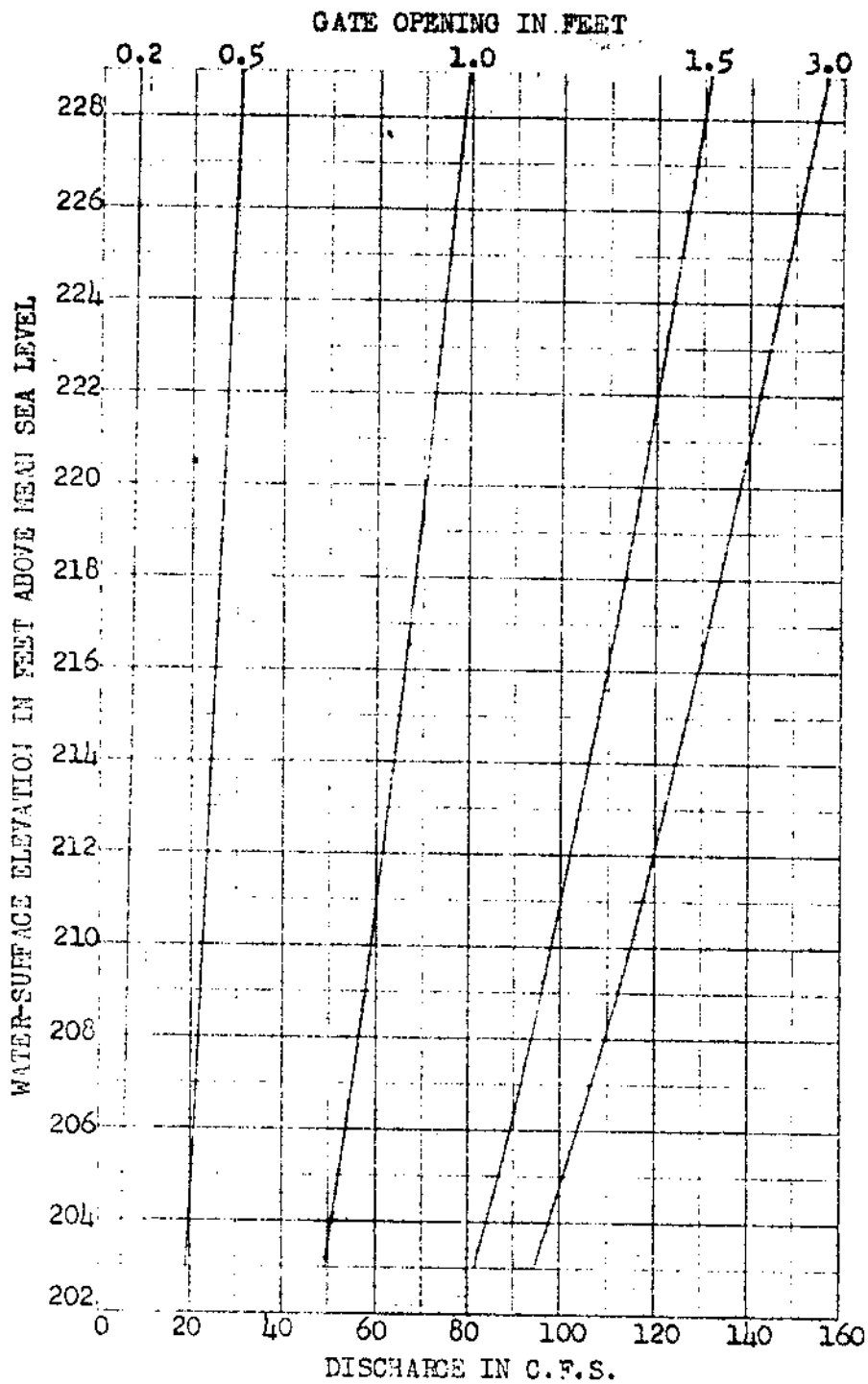
110 120 130

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

DISCHARGE CURVE

Mission Creek upper 36" gate  
 Office of the District Engineer  
 Los Angeles, California

To accompany report dtd: 1 Oct. 1957



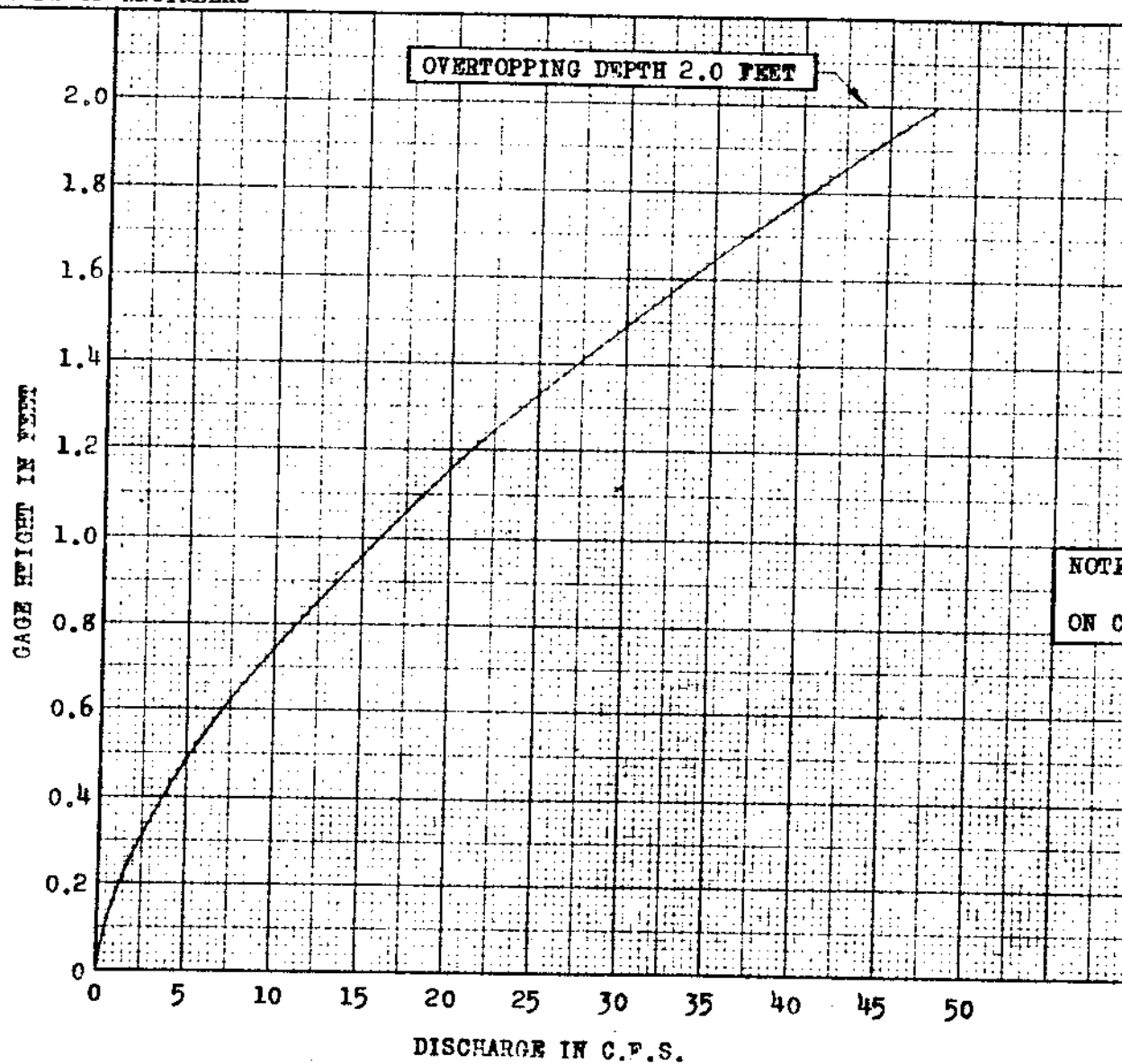
NOTE:  
FOR CURVES TO BE  
APPLICABLE, THE UPPER 36"  
GATE MUST BE OPEN.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

DISCHARGE CURVE

Mission Creek lower 30" gate  
Office of the District Engineer  
Los Angeles, California

To accompany report dtd: 1 Oct. 1957



NOTE:  
PRELIMINARY RATING CURVE BASED  
ON COMPUTED DISCHARGES.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows P.-C. Reservoir

**RATING CURVE**

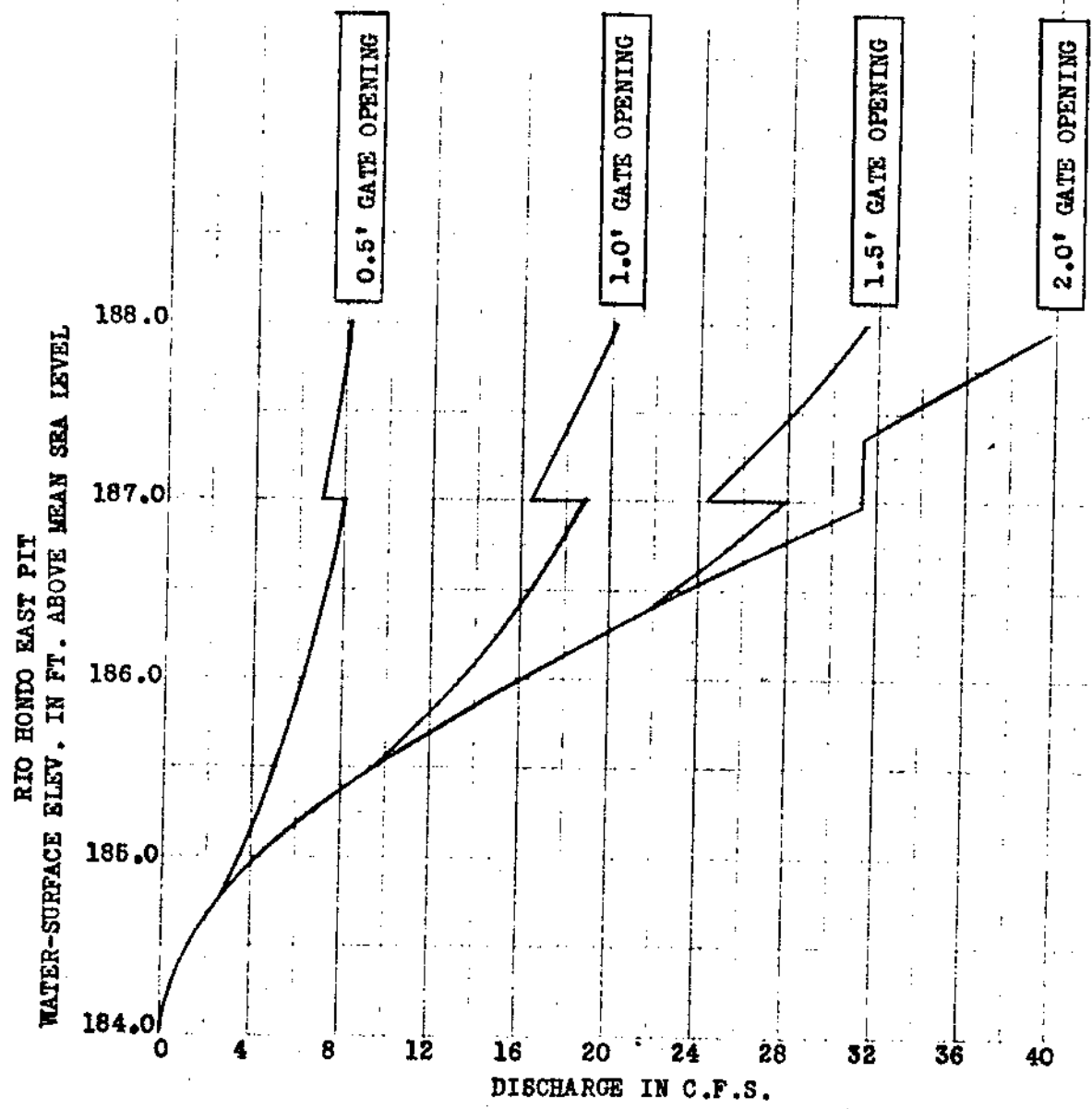
Mission Creek  
below Whittier Narrows Dam

Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

PLATE B-52



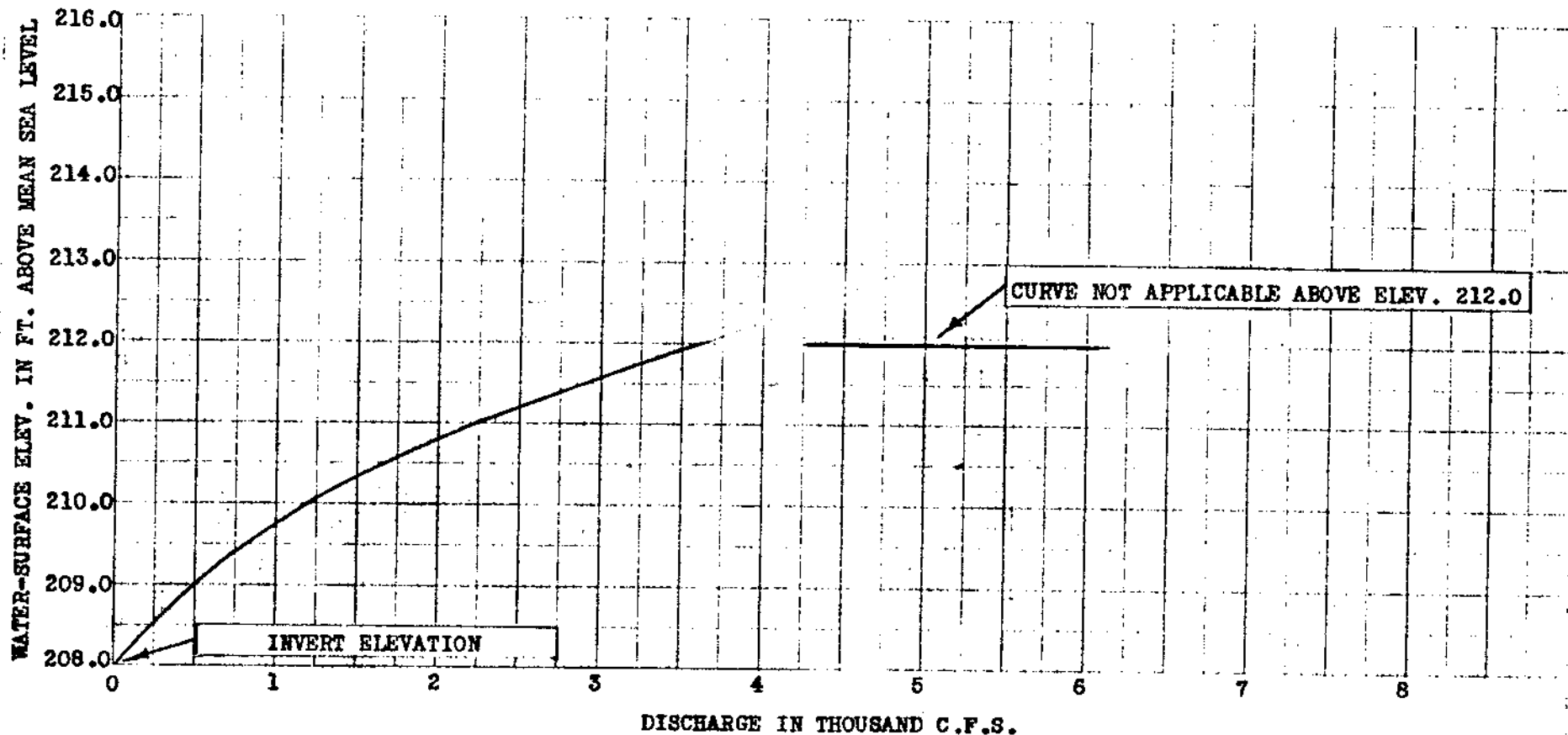
PLATE B-35



Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

RATING CURVE

36" Gate  
 (Diversion of Rising Water)  
 Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957



NOTE:

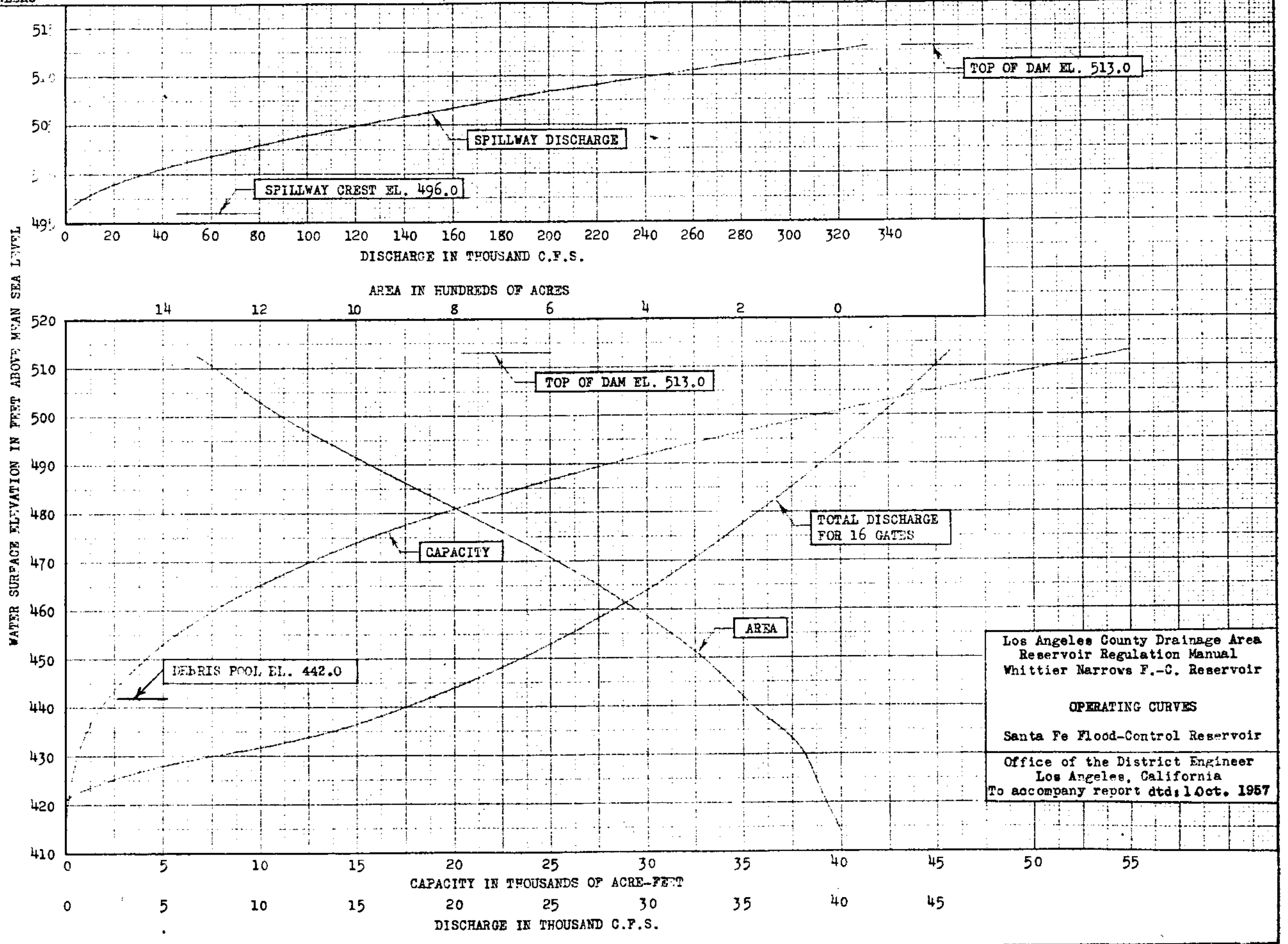
THIS CURVE TO BE USED ONLY WHEN MISSION CREEK POOL IS BELOW WATER-SURFACE ELEV. 208.0.

Los Angeles County Drainage Area  
Reservoir Regulation Manual  
Whittier Narrows F.-C. Reservoir

RATING CURVE

Floodflow Channel  
At San Gabriel River  
Office of the District Engineer  
Los Angeles, California  
To accompany report dtd: 1 Oct. 1957

PLATE B-34



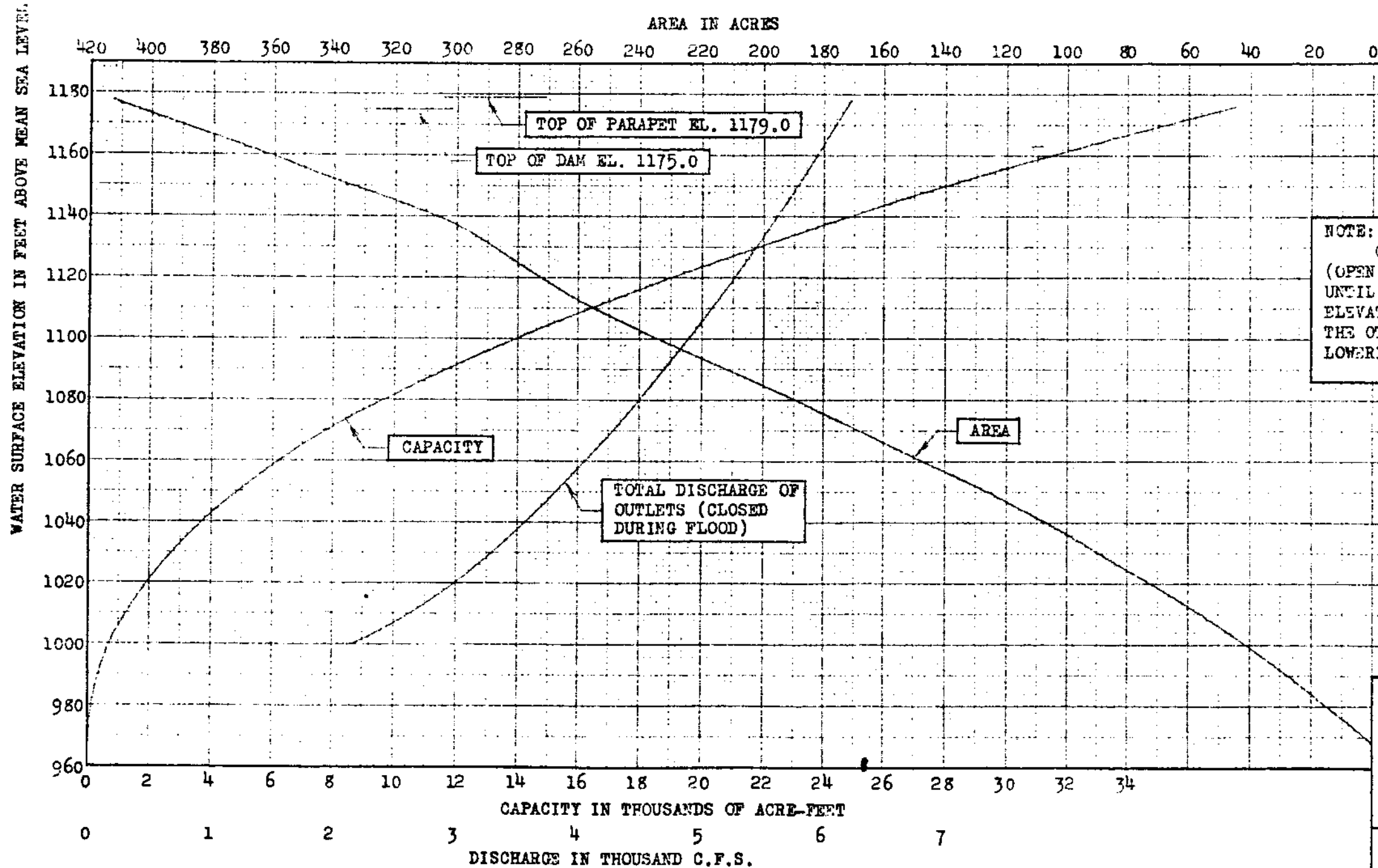
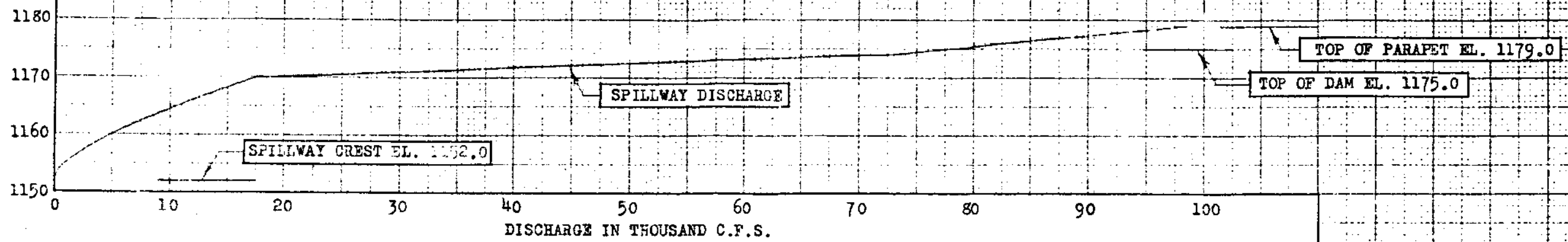
Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

OPERATING CURVES

Santa Fe Flood-Control Reservoir

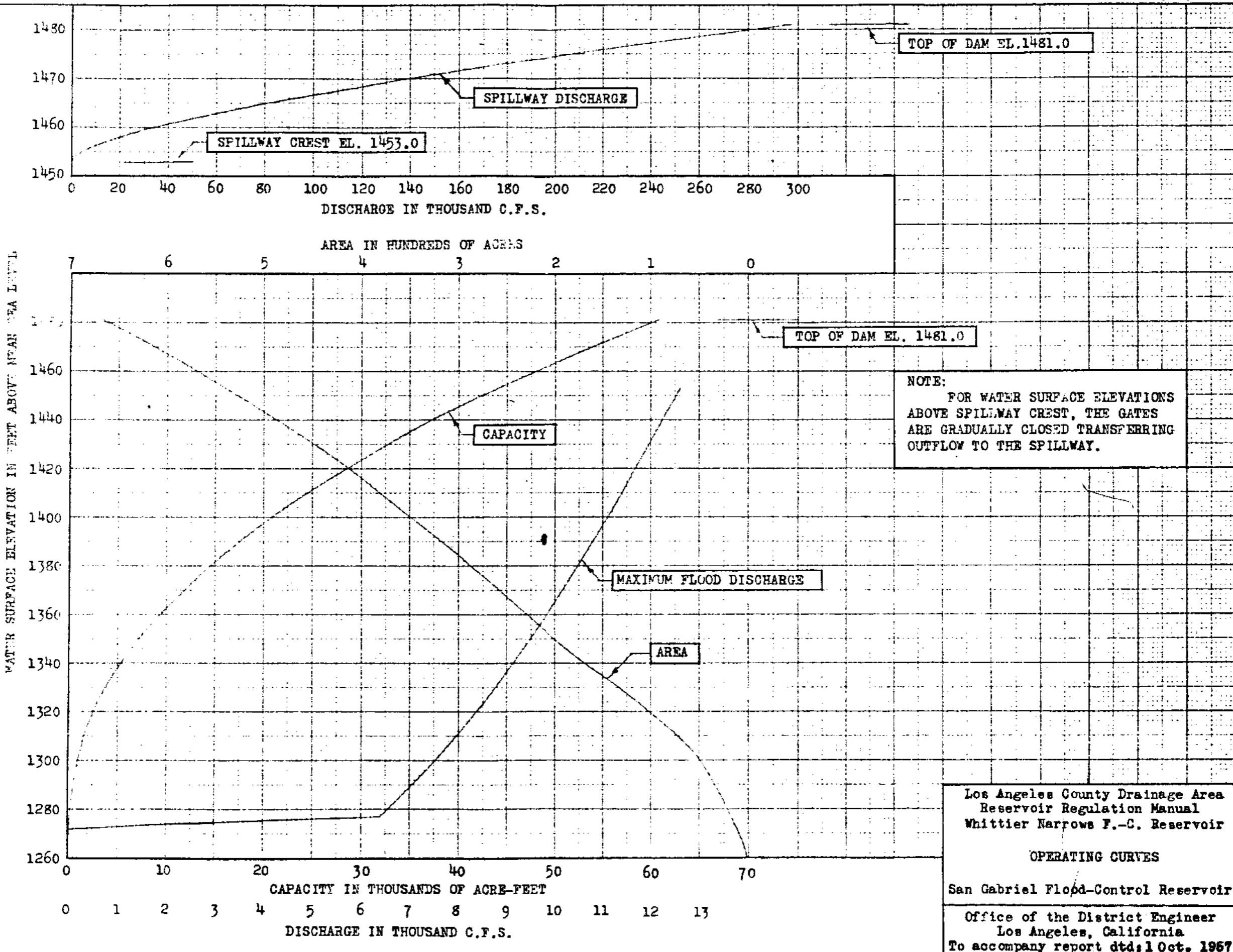
Office of the District Engineer  
 Los Angeles, California

To accompany report dtd: 1 Oct. 1957



NOTE:  
 CENTER SPILLWAY GATE IS DOWN (OPEN) AND OTHER TWO GATES ARE UP UNTIL WATER SURFACE REACHES ELEVATION 1170. AT THIS ELEVATION THE OTHER TWO GATES COMMENCE LOWERING AUTOMATICALLY.

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir  
 OPERATING CURVES  
 Morris Dam  
 Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957

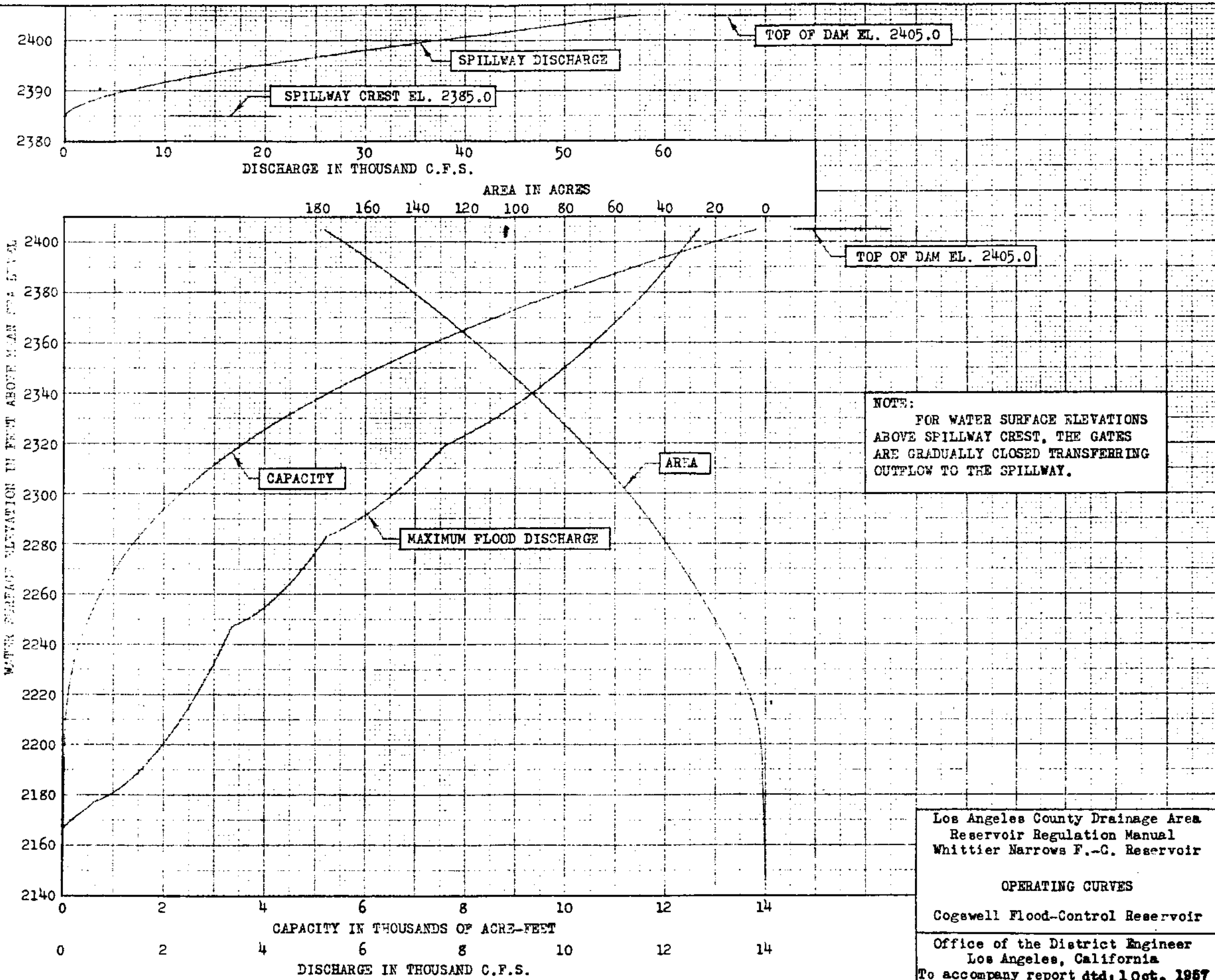


Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

OPERATING CURVES

San Gabriel Flood-Control Reservoir

Office of the District Engineer  
 Los Angeles, California  
 To accompany report dtd: 1 Oct. 1957



NOTE:  
 FOR WATER SURFACE ELEVATIONS ABOVE SPILLWAY CREST, THE GATES ARE GRADUALLY CLOSED TRANSFERRING OUTFLOW TO THE SPILLWAY.

Los Angeles County Drainage Area  
 Reservoir Regulation Manual  
 Whittier Narrows F.-C. Reservoir

OPERATING CURVES

Cogswell Flood-Control Reservoir

Office of the District Engineer  
 Los Angeles, California

To accompany report dtd, 1 Oct. 1957

