

## APPENDIX

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FIGURE 1A

DISCHARGE VOLUMES OF THE SOUTH PLATTE RIVER AT  
KERSEY AND BALZAC, WATER YEARS 1947 THROUGH 1961  
AND  
PRECIPITATION AT FT. MORGAN, CALENDAR  
YEARS 1947 THROUGH 1961

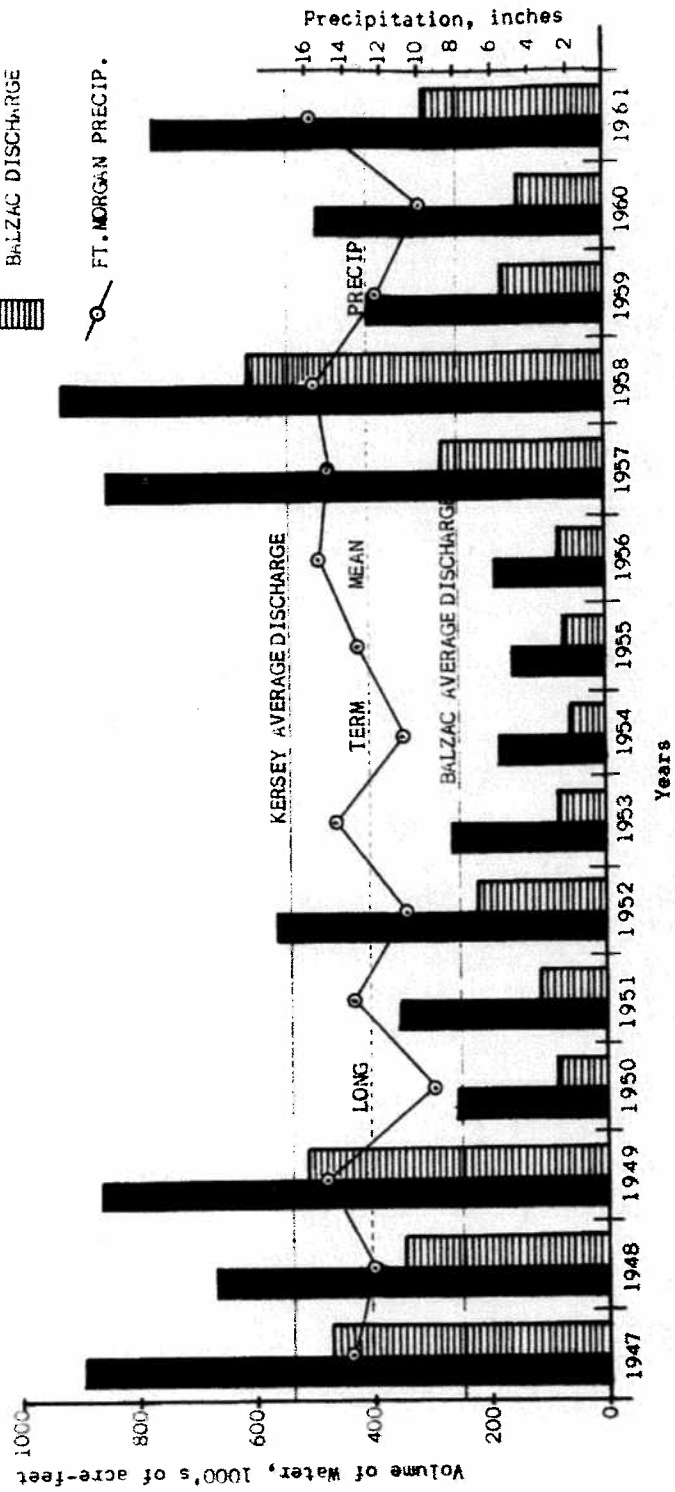
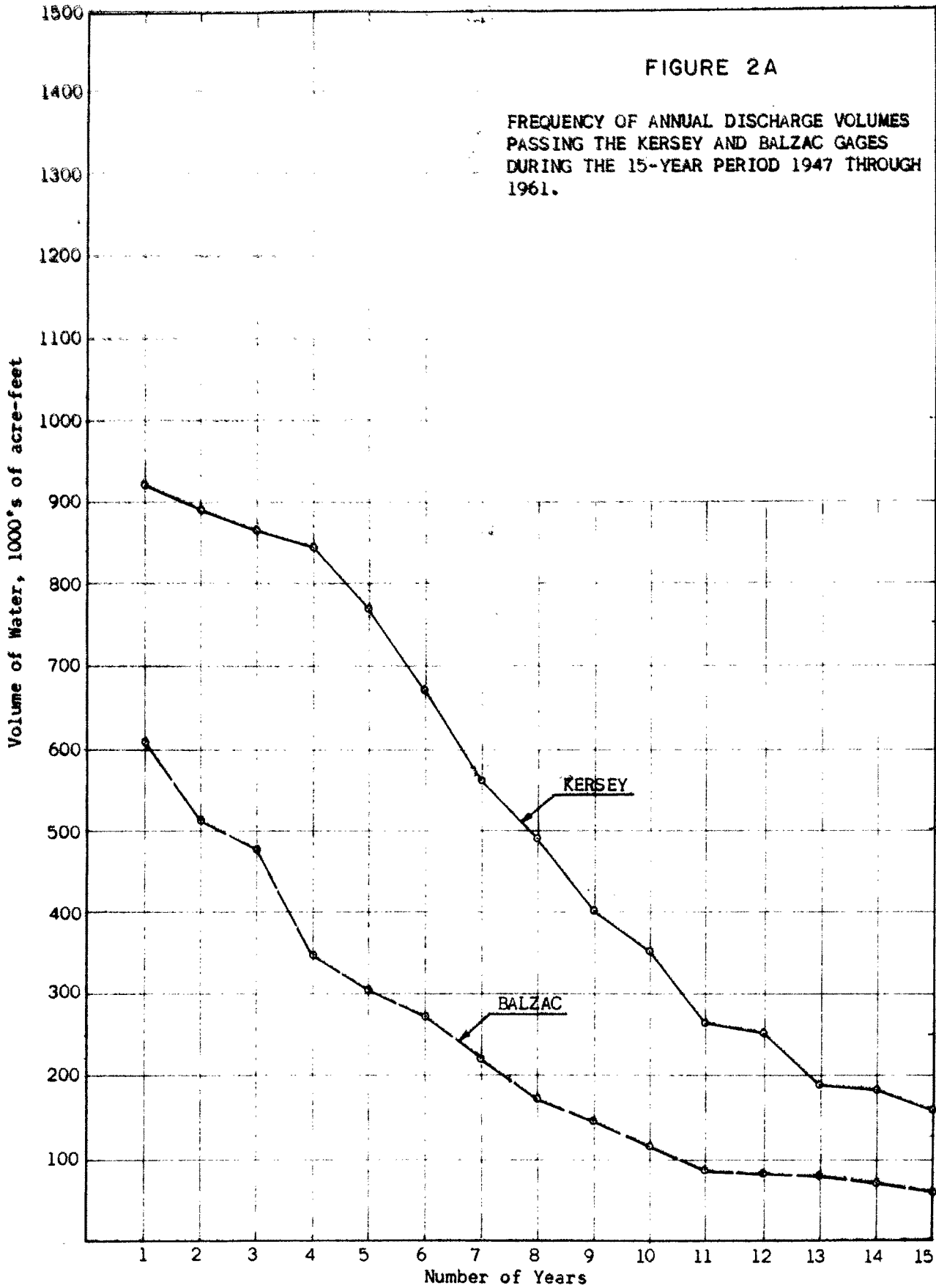
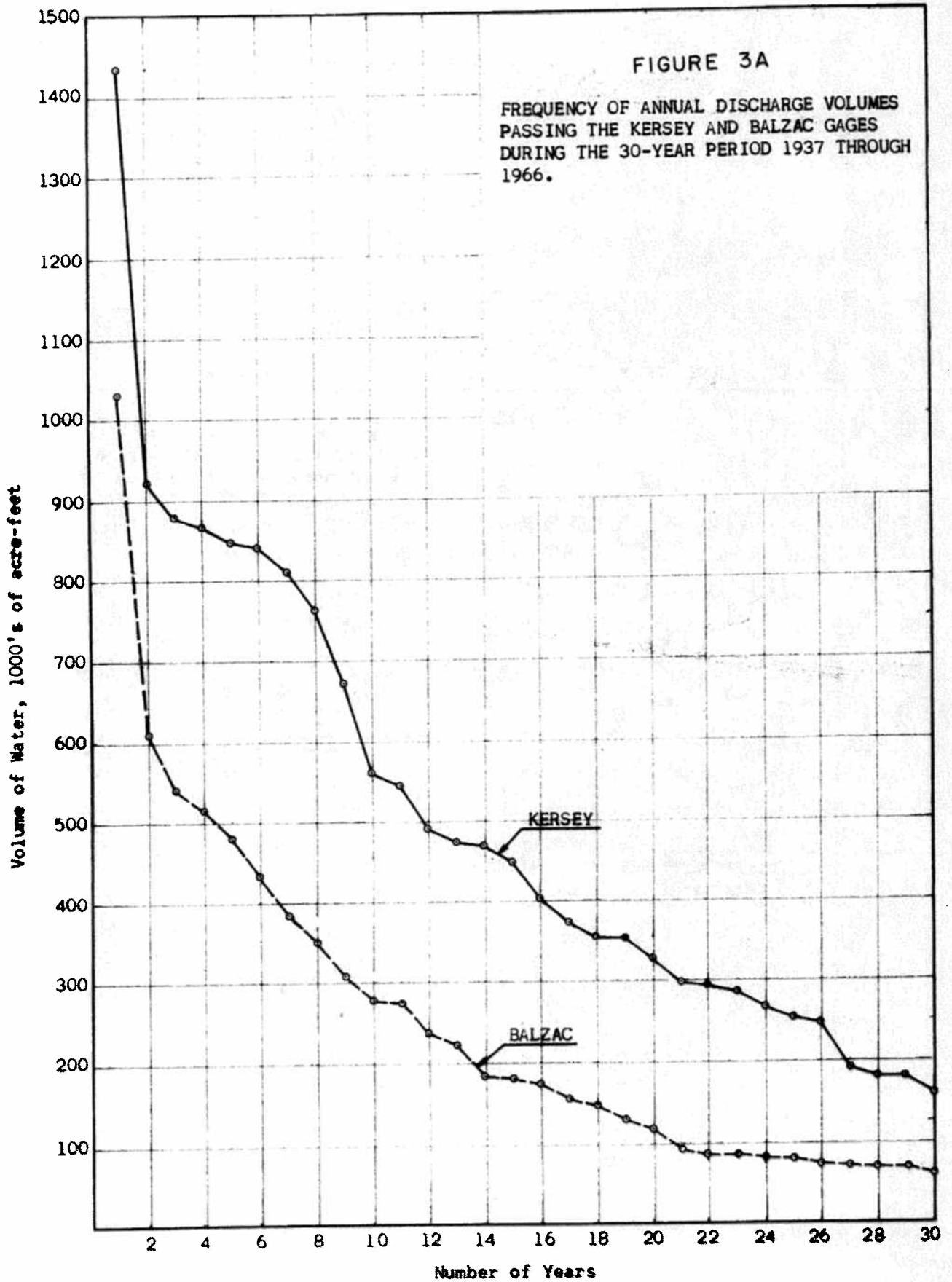
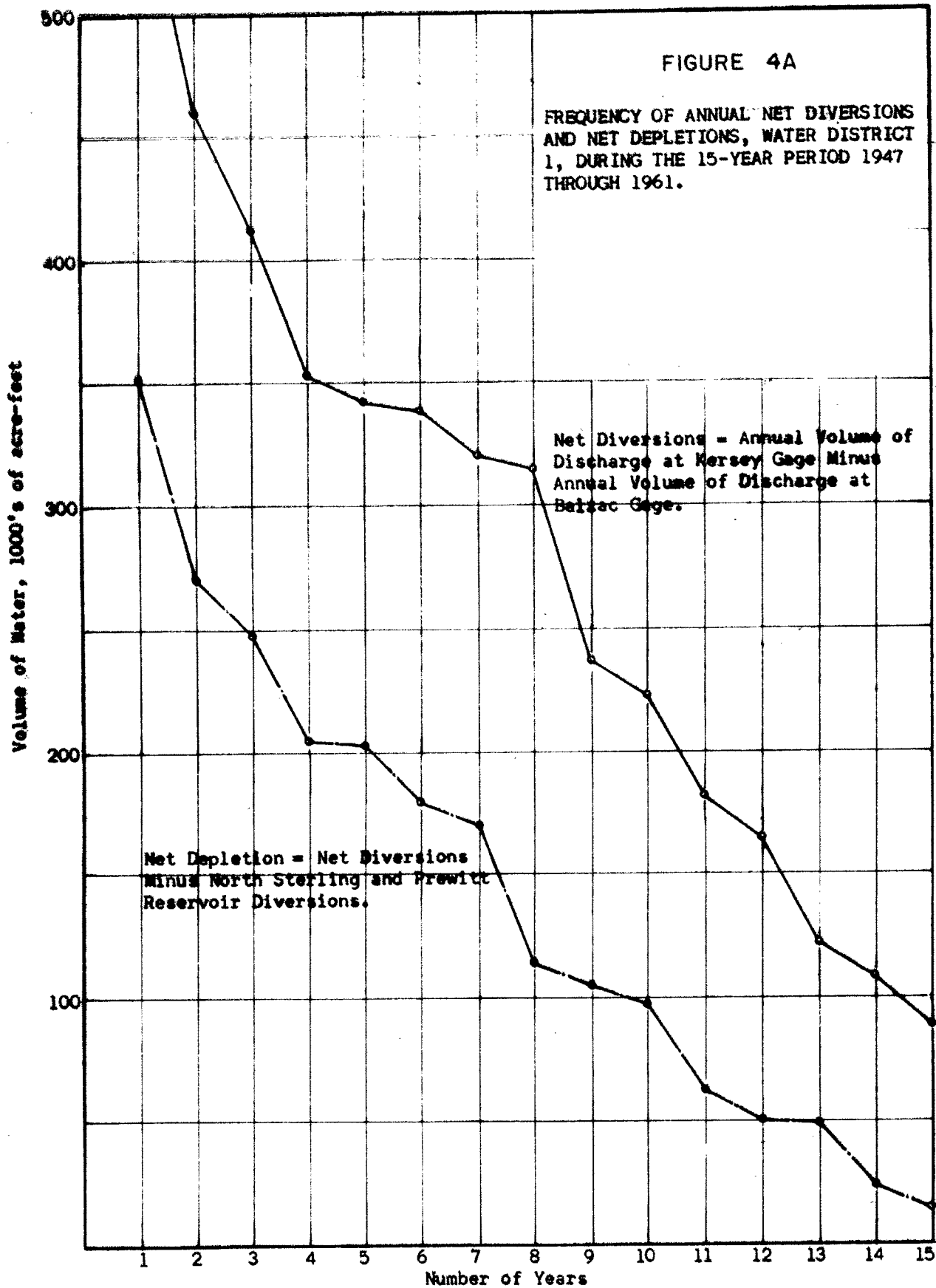


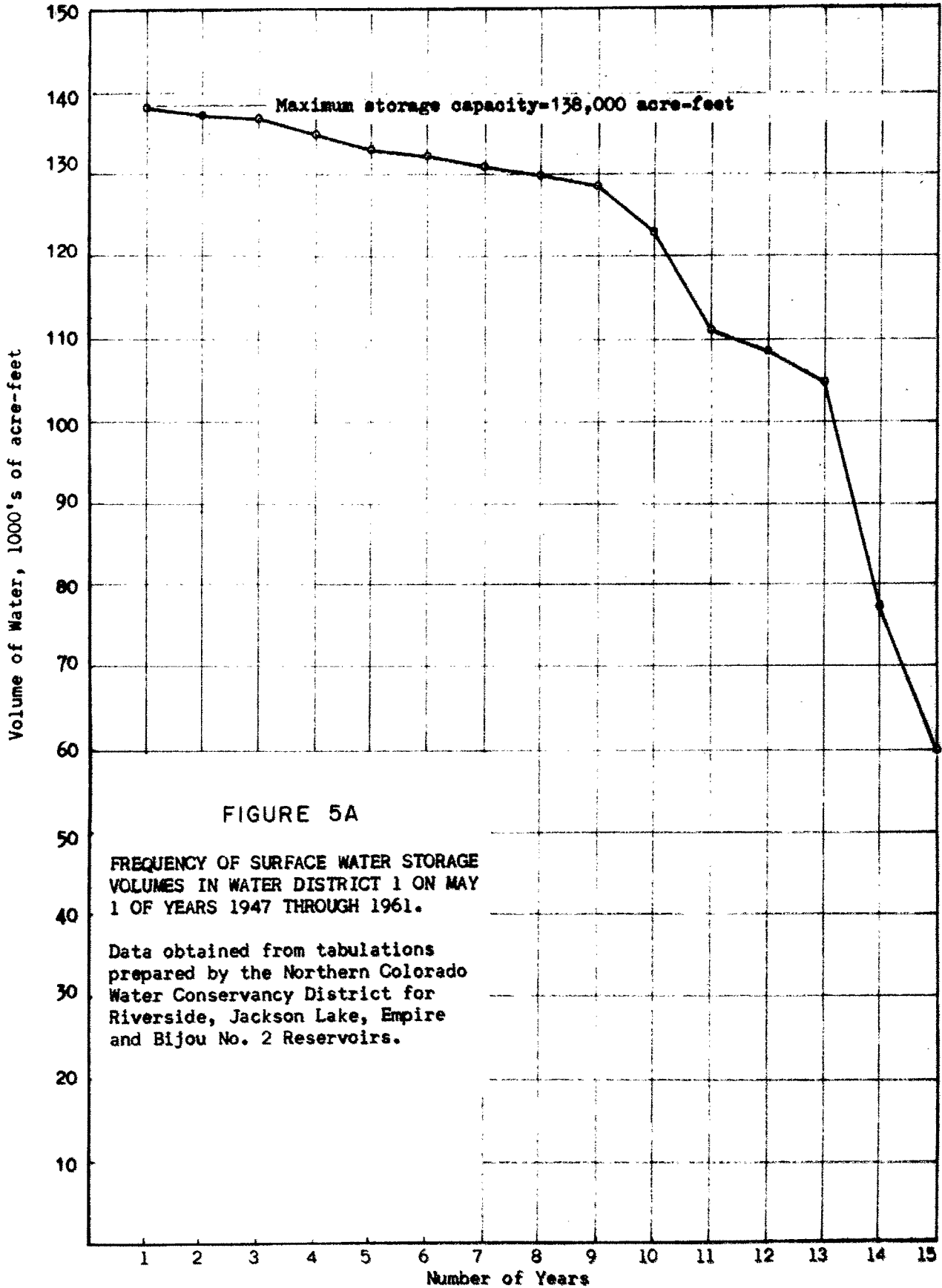
FIGURE 2A

FREQUENCY OF ANNUAL DISCHARGE VOLUMES  
PASSING THE KERSEY AND BALZAC GAGES  
DURING THE 15-YEAR PERIOD 1947 THROUGH  
1961.









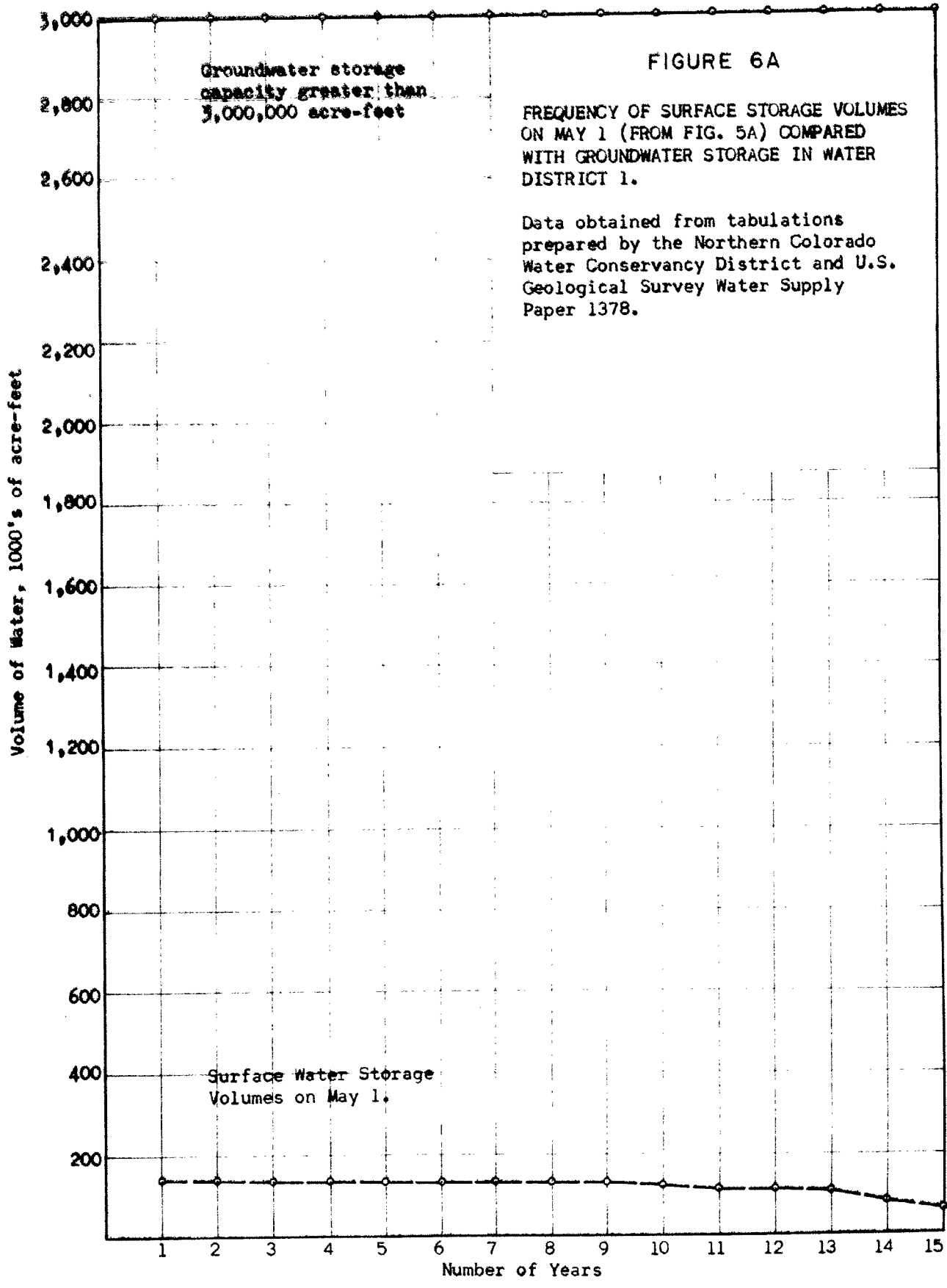


FIGURE 6A

FREQUENCY OF SURFACE STORAGE VOLUMES ON MAY 1 (FROM FIG. 5A) COMPARED WITH GROUNDWATER STORAGE IN WATER DISTRICT 1.

Data obtained from tabulations prepared by the Northern Colorado Water Conservancy District and U.S. Geological Survey Water Supply Paper 1378.

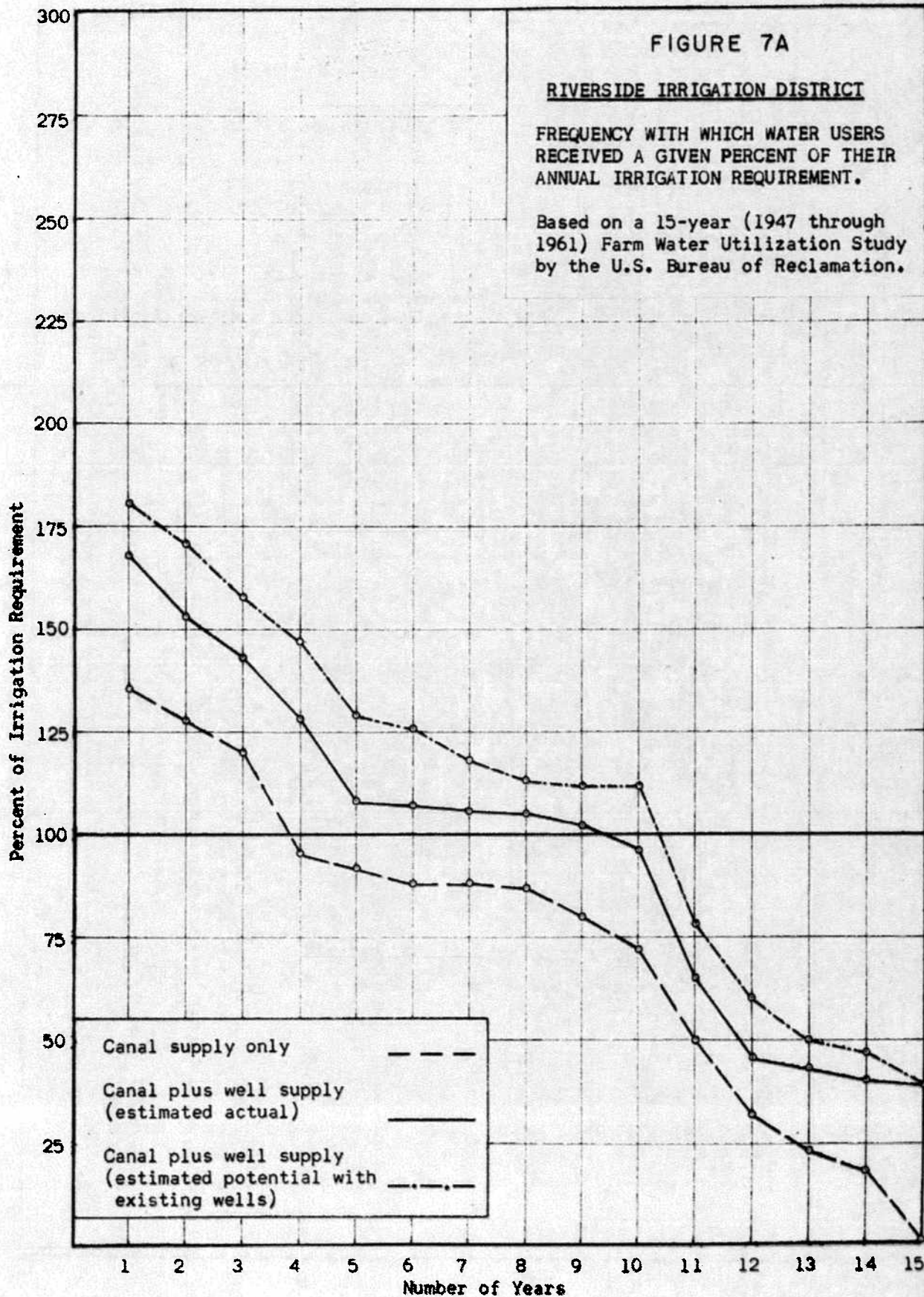
Groundwater storage capacity greater than 3,000,000 acre-feet

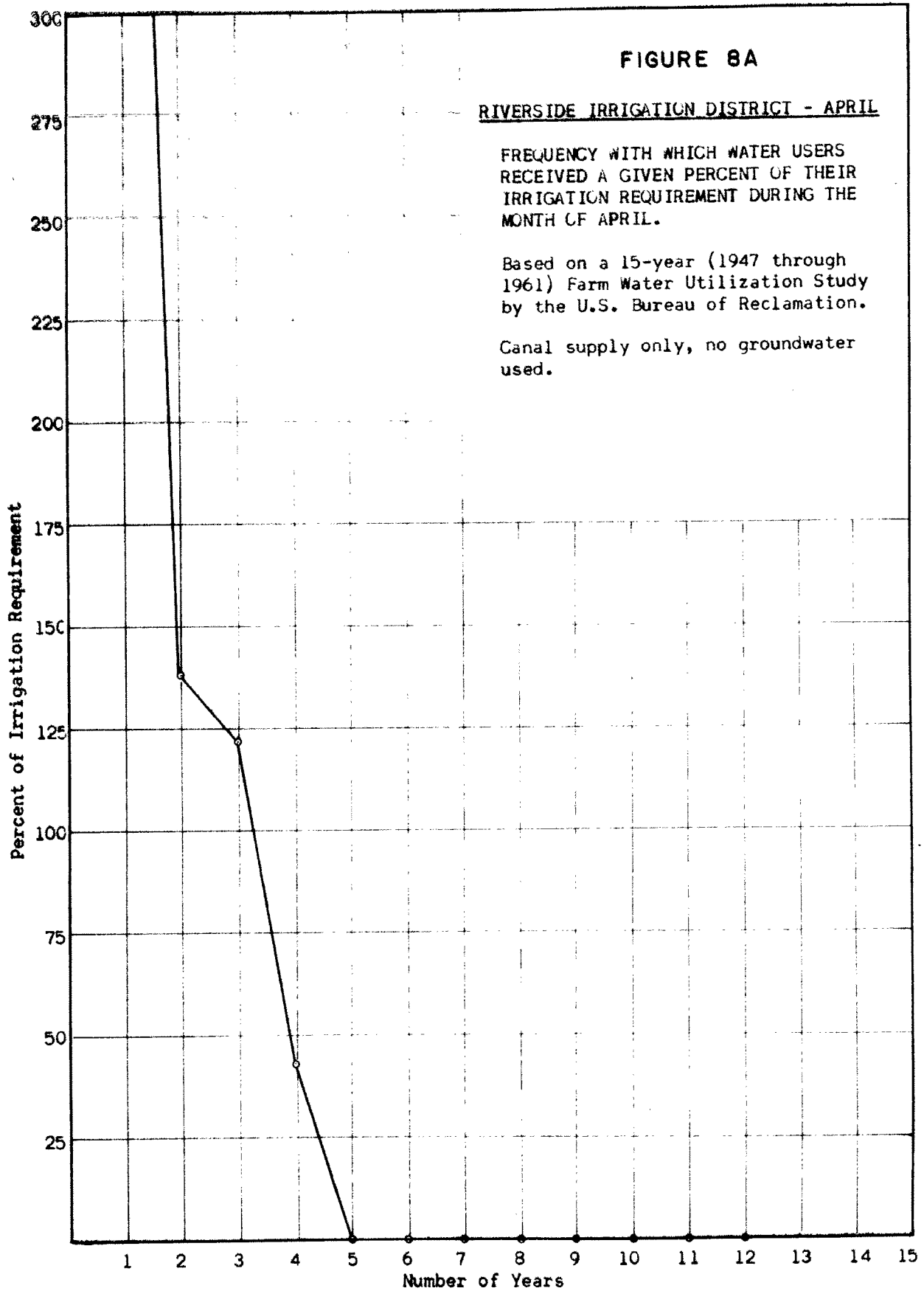
Surface Water Storage Volumes on May 1.

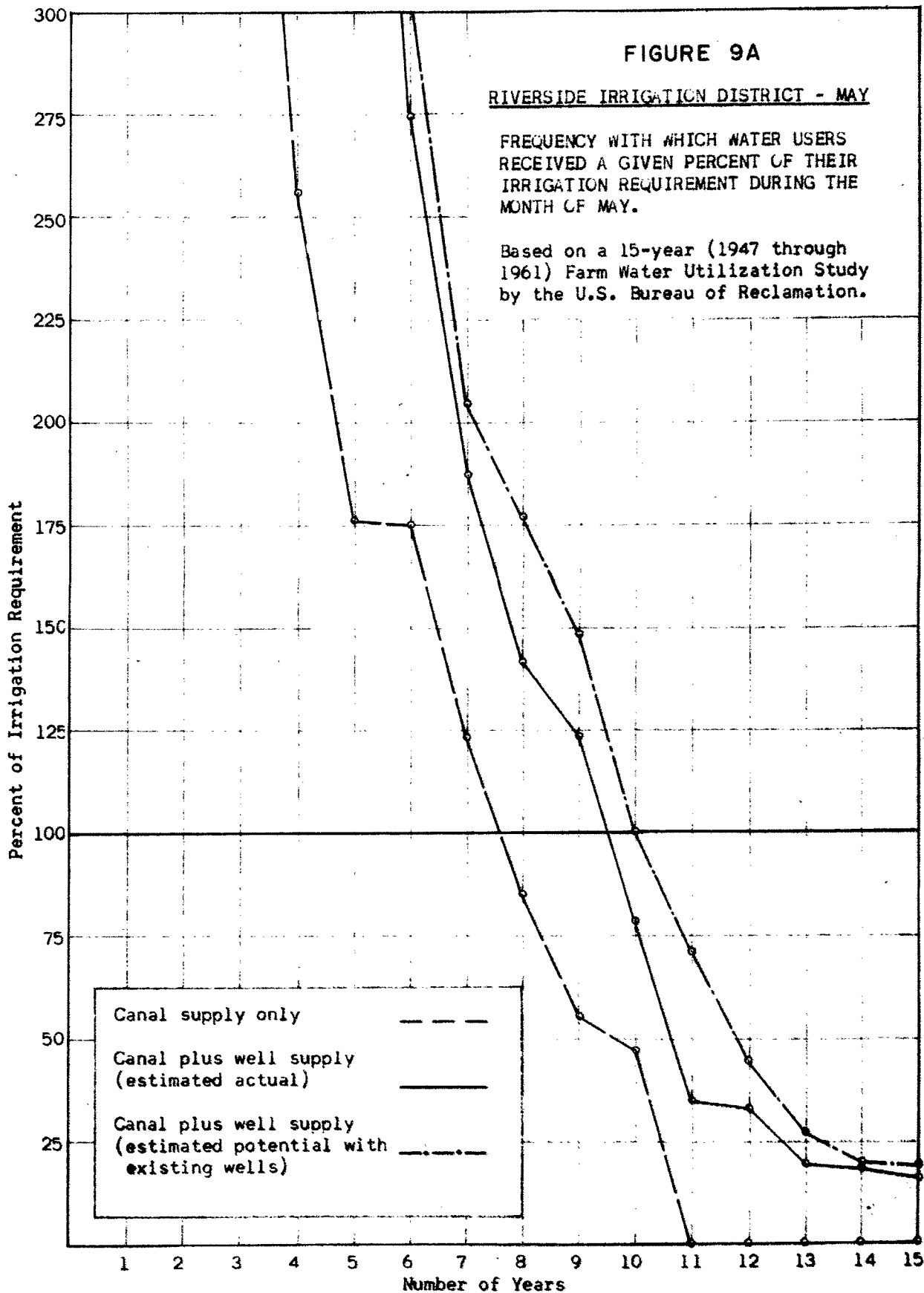
Volume of Water, 1000's of acre-feet

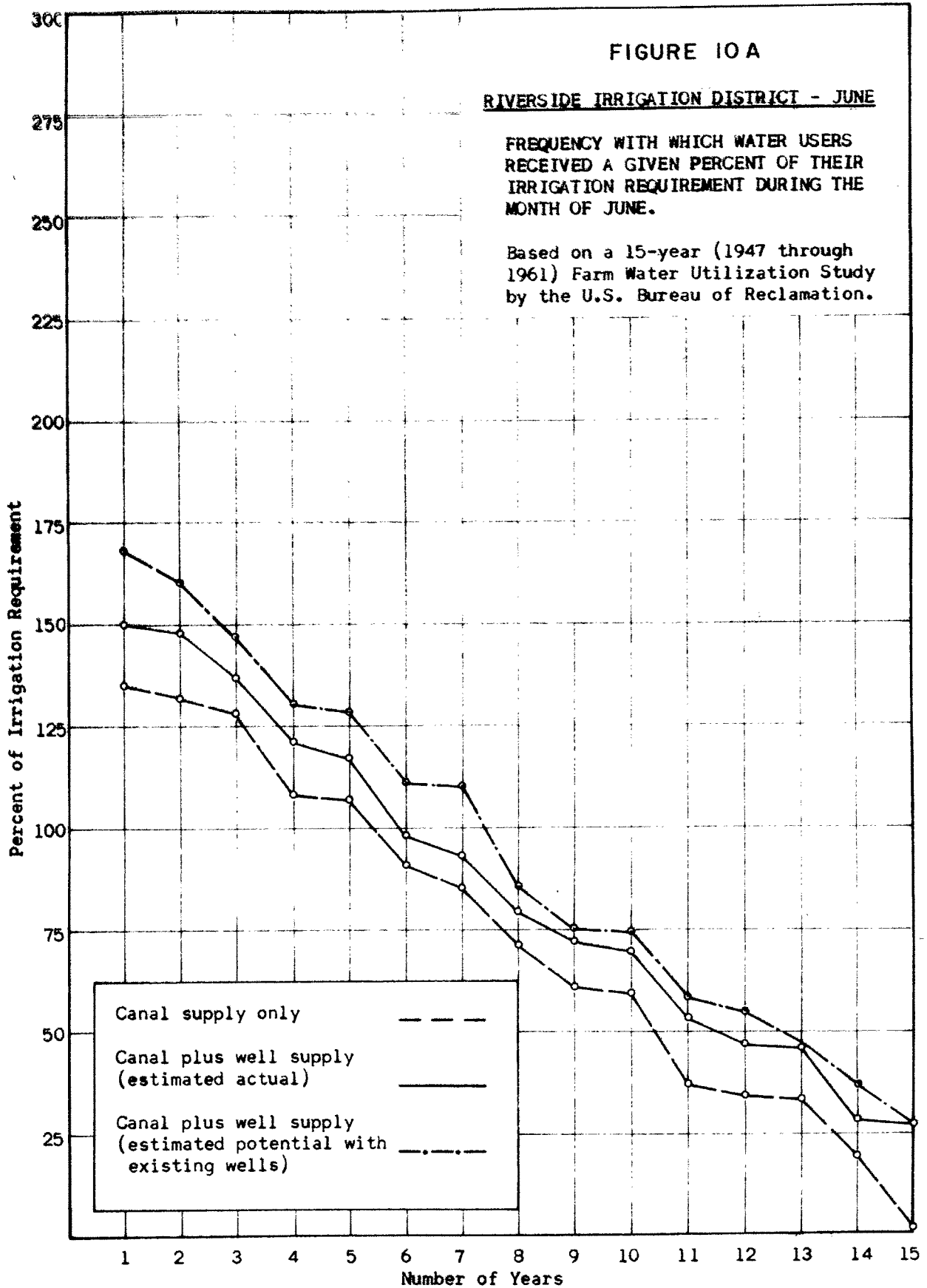
Number of Years

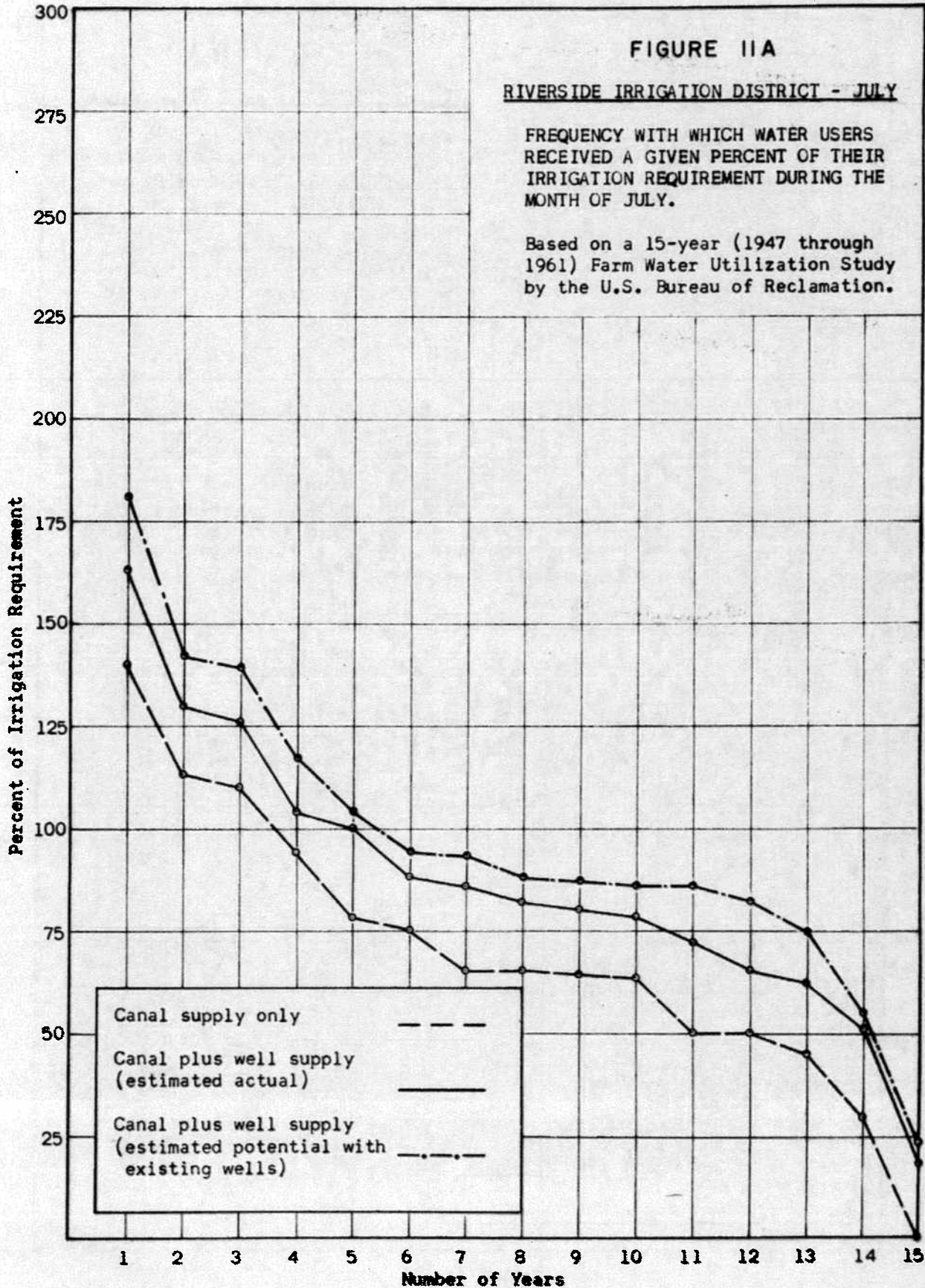


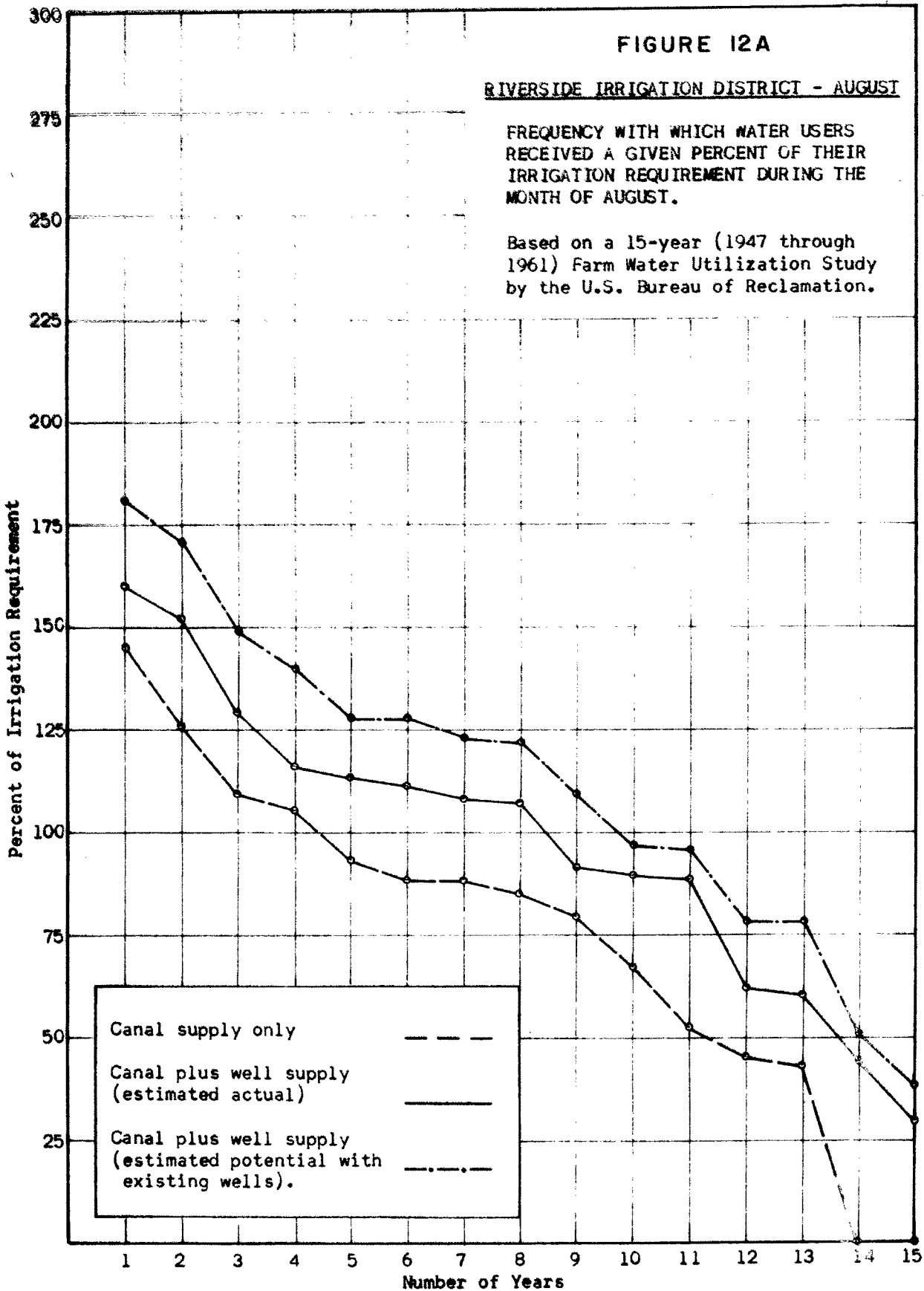


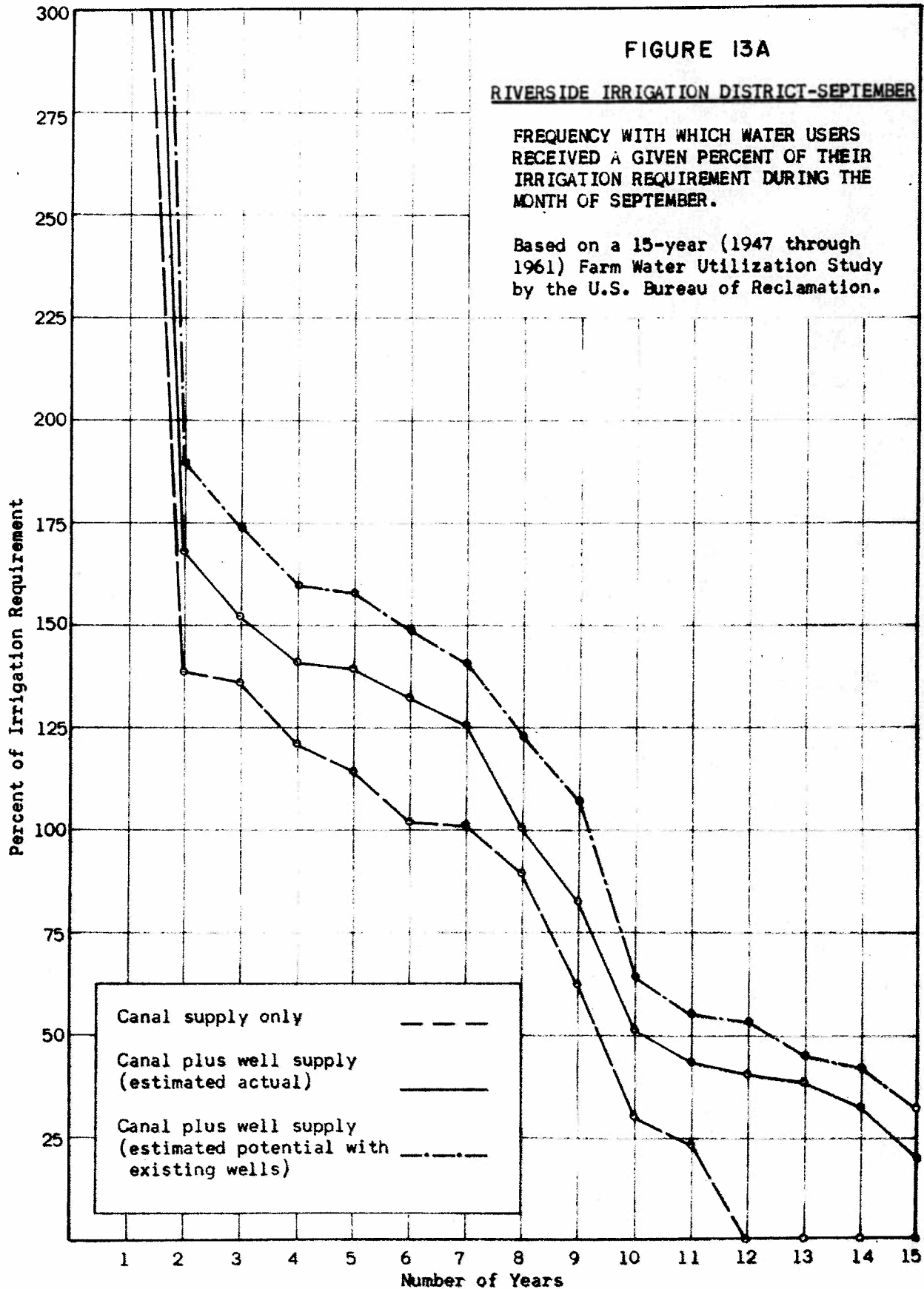




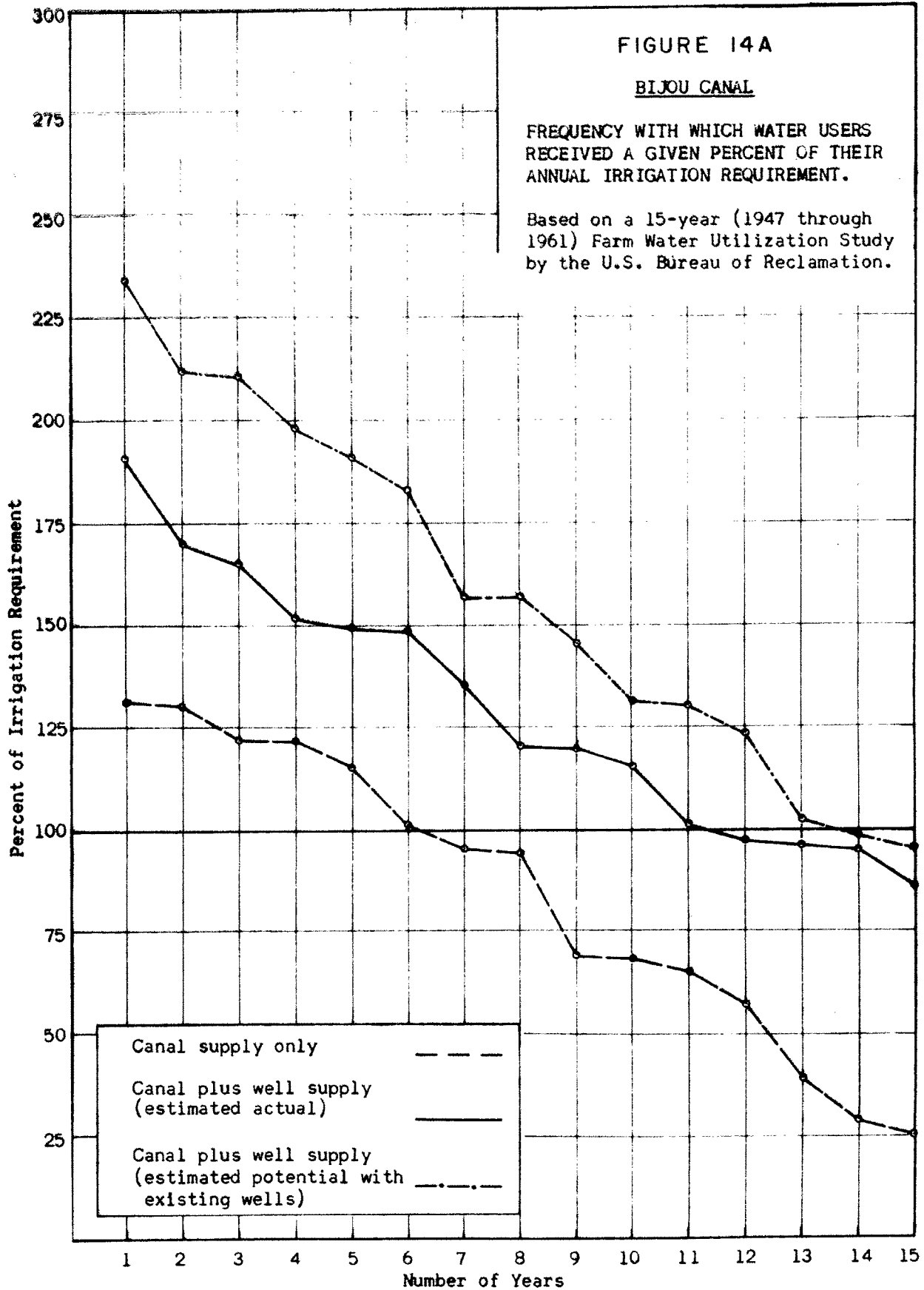




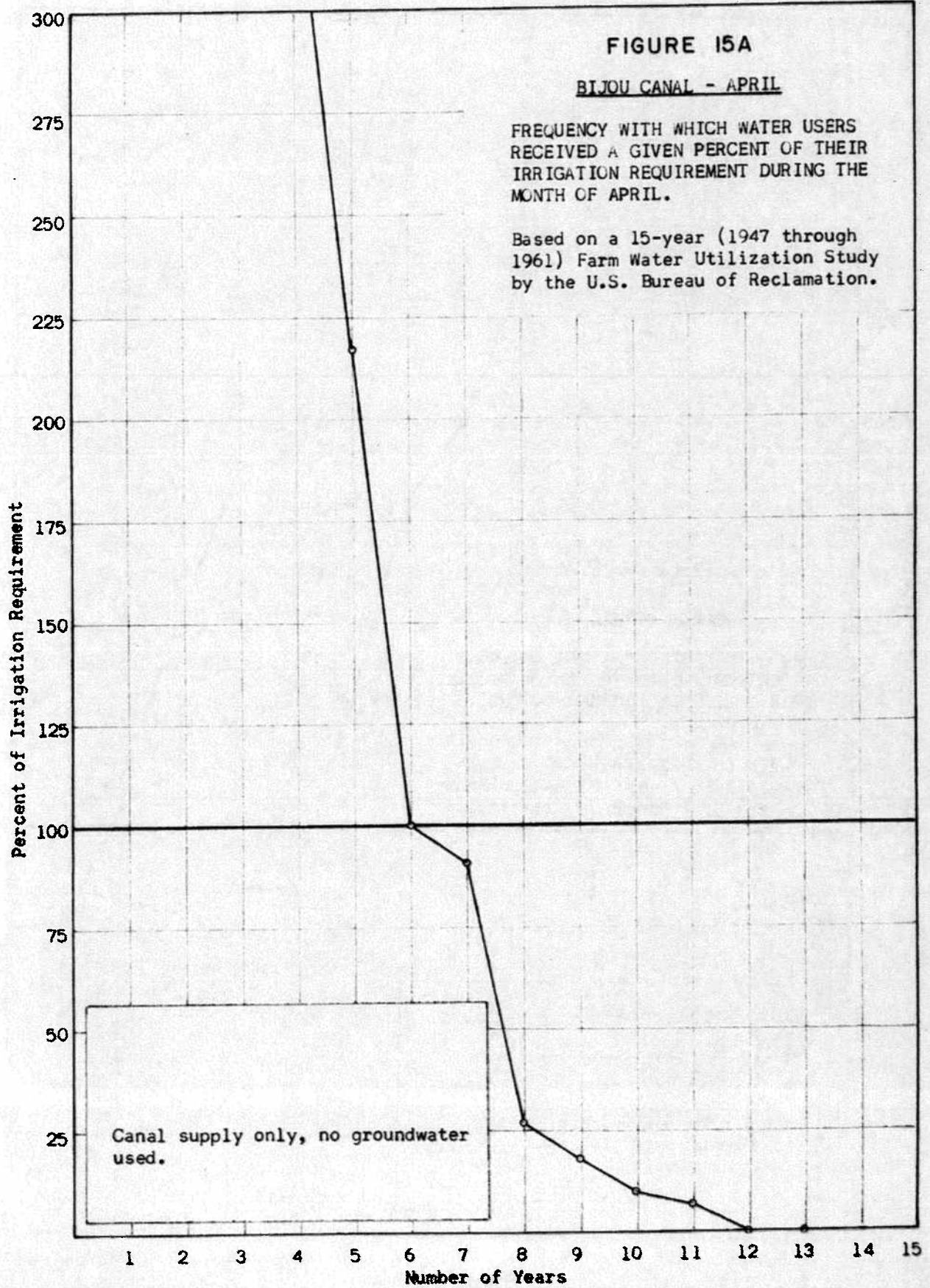


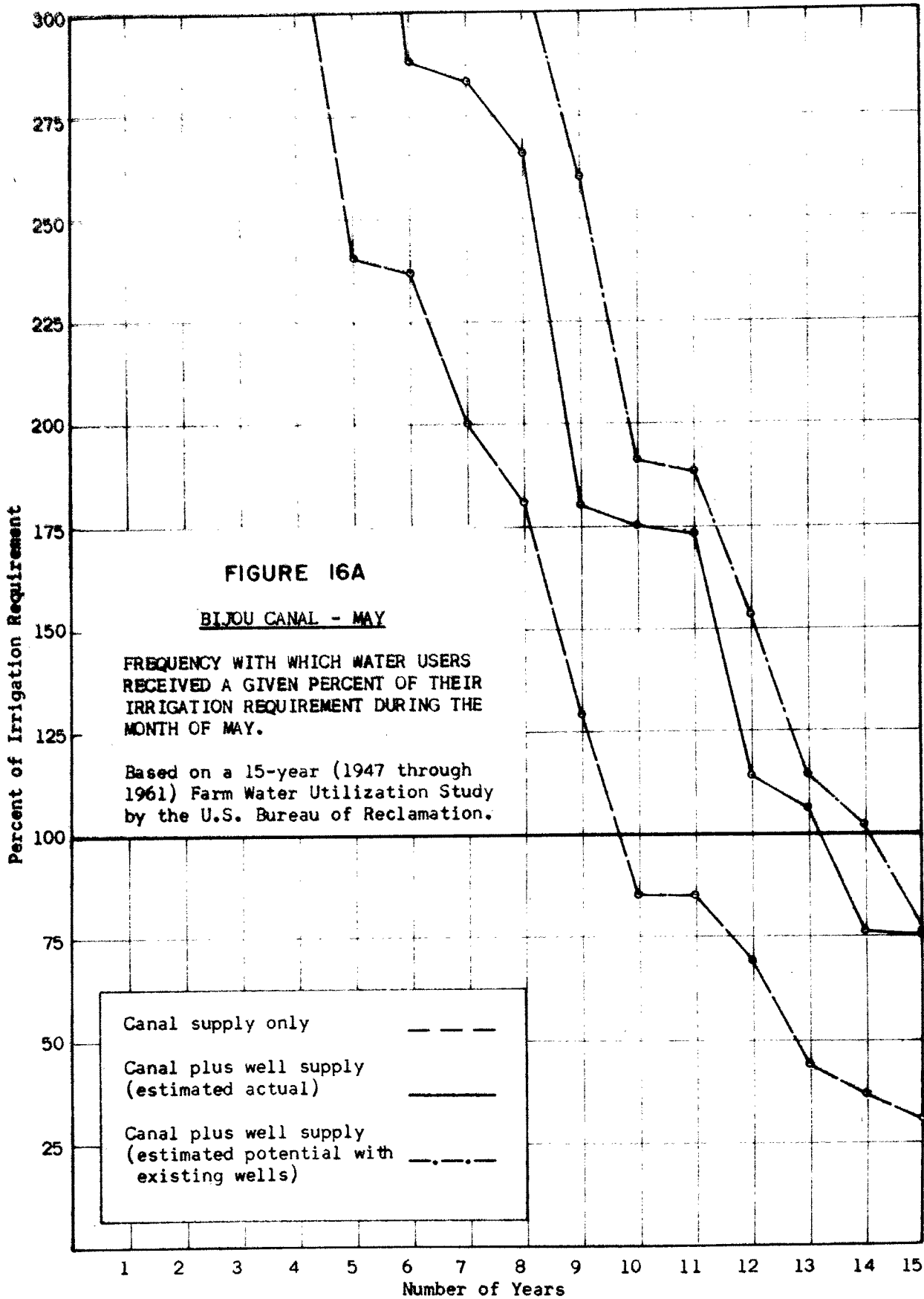


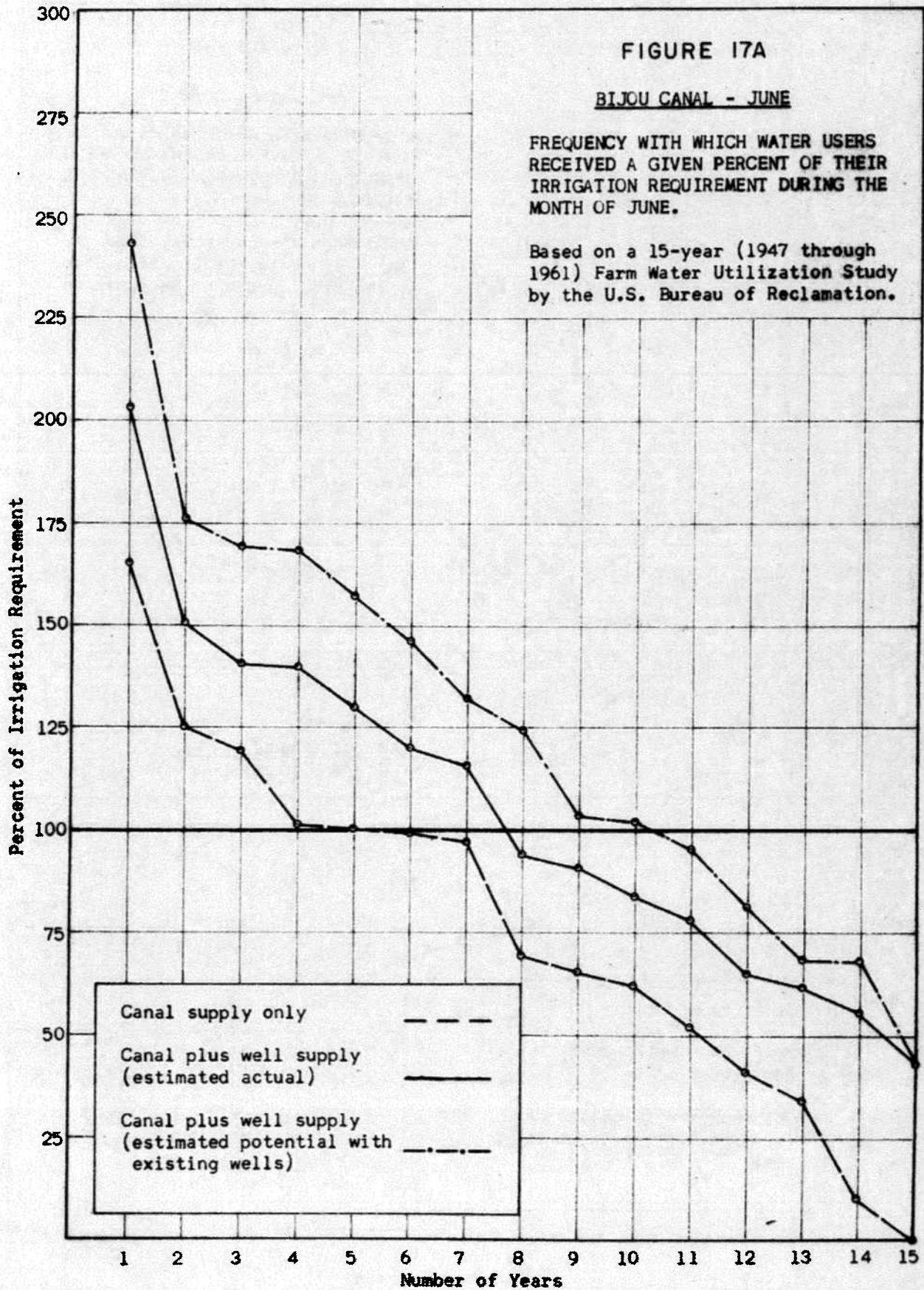


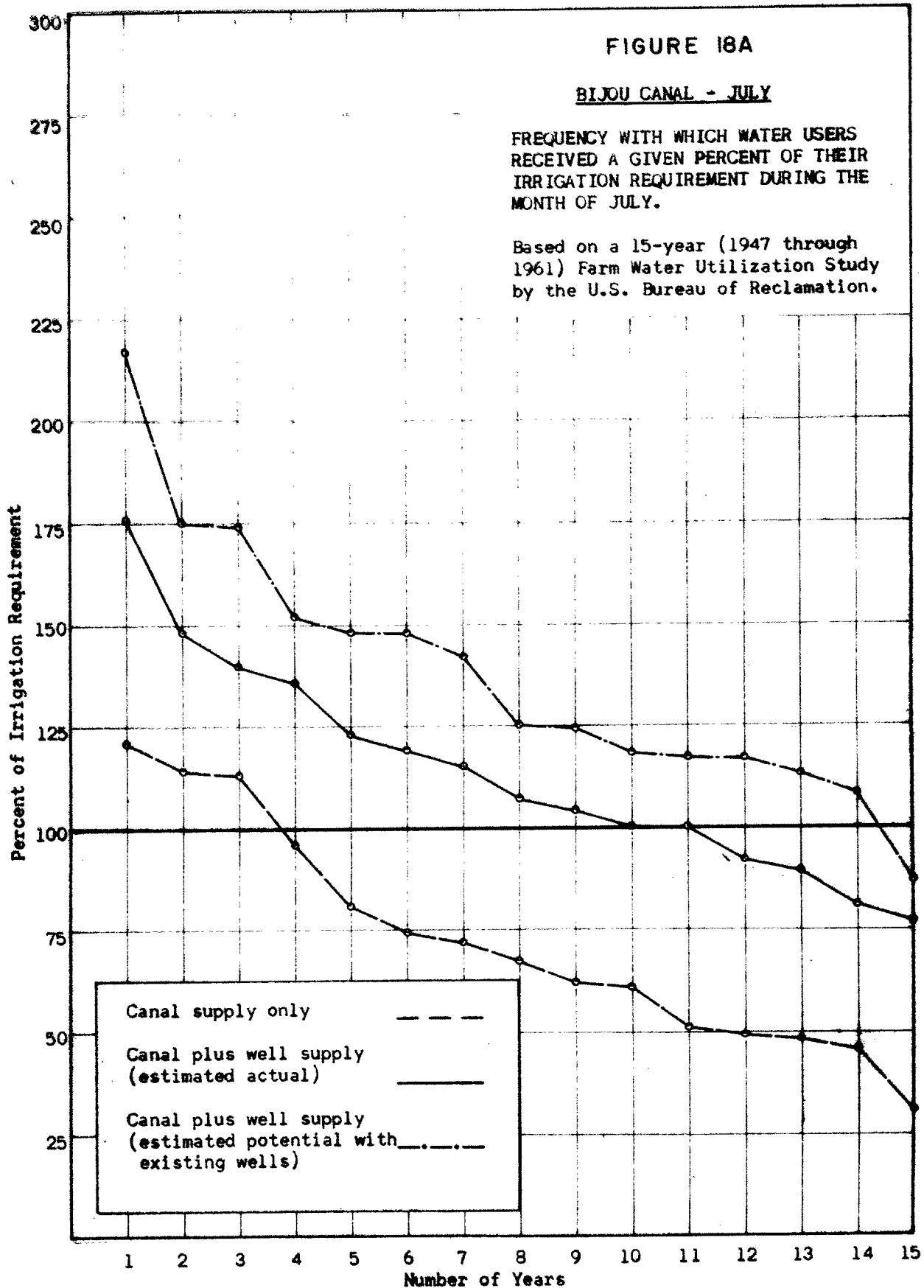


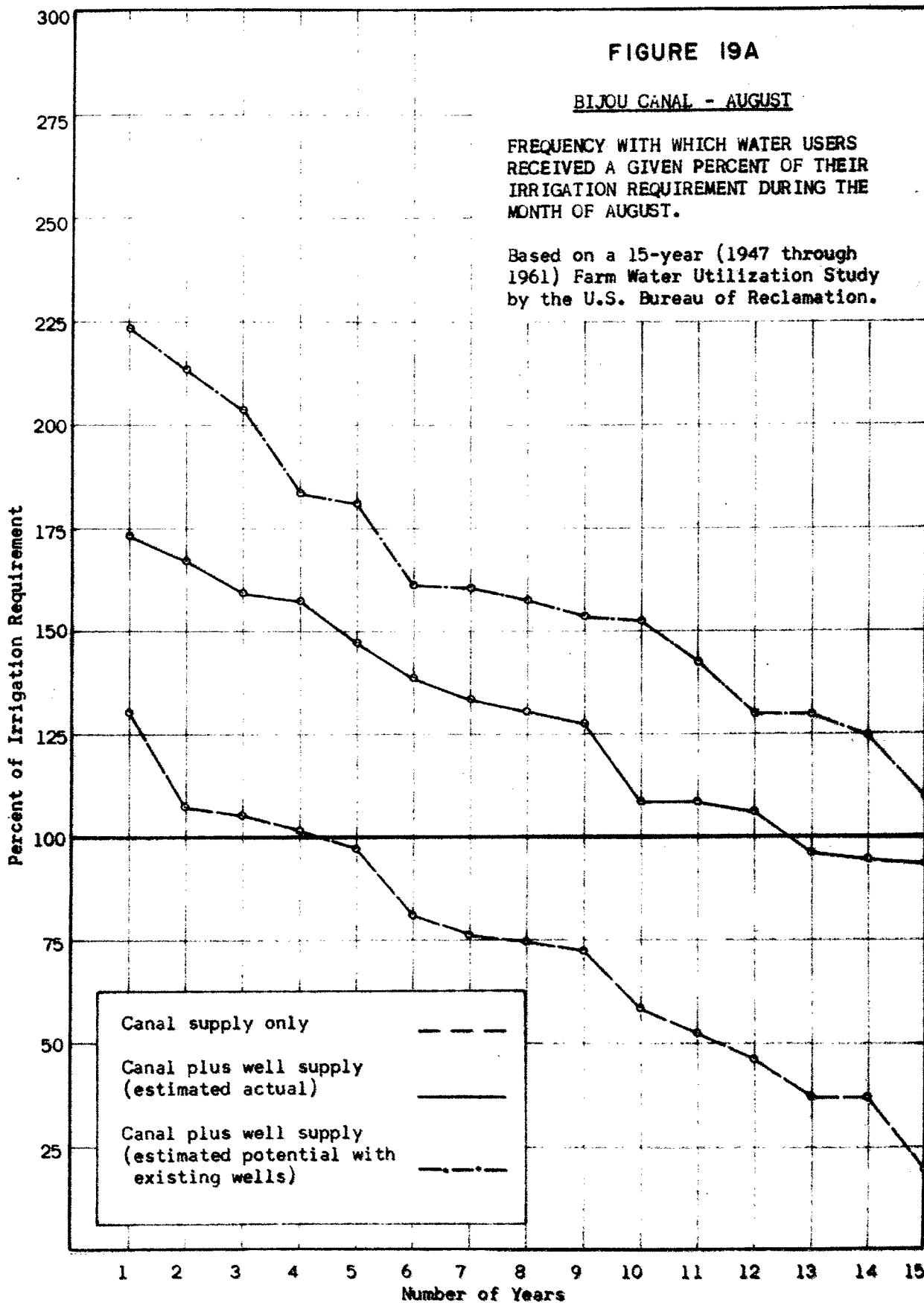


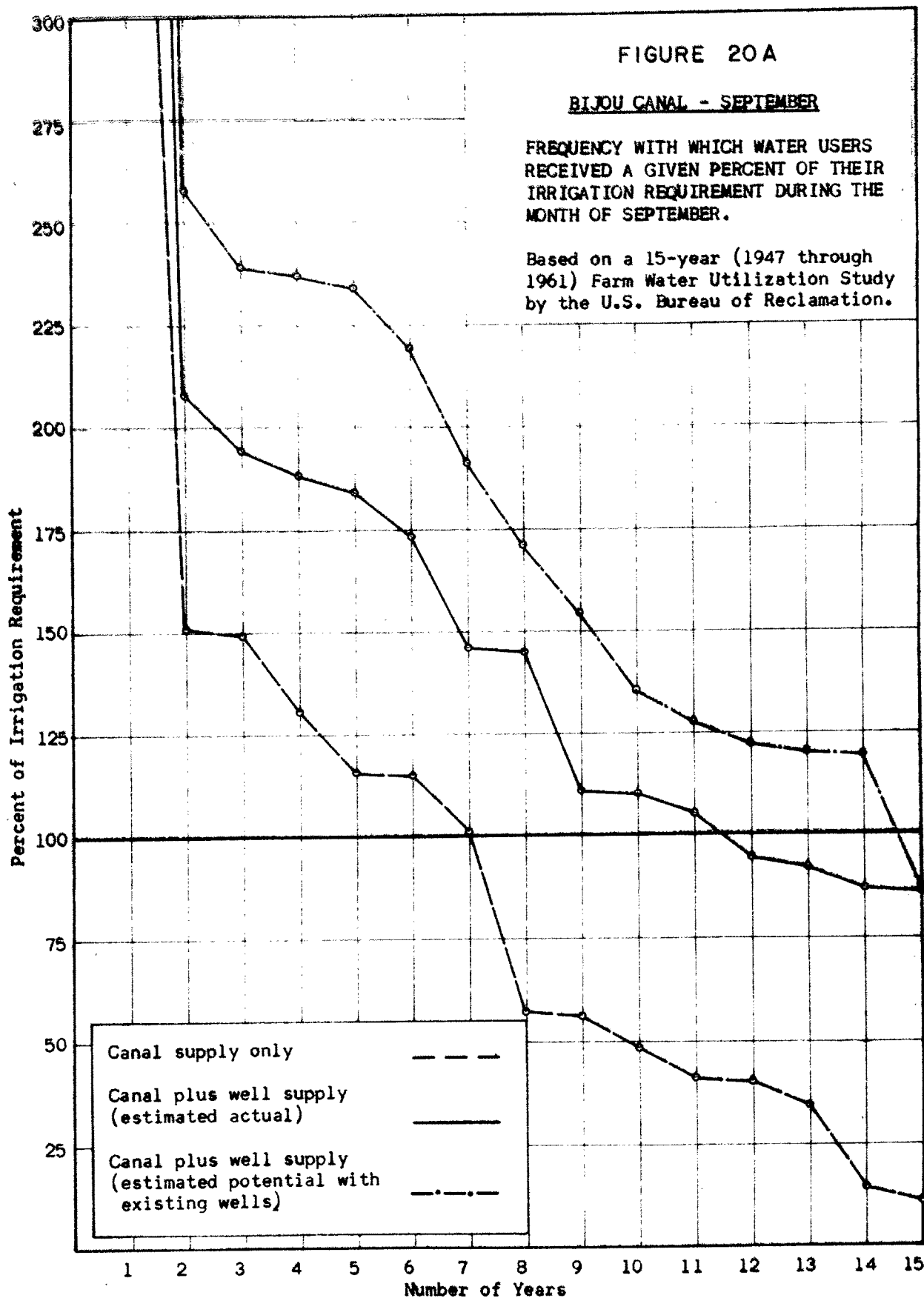




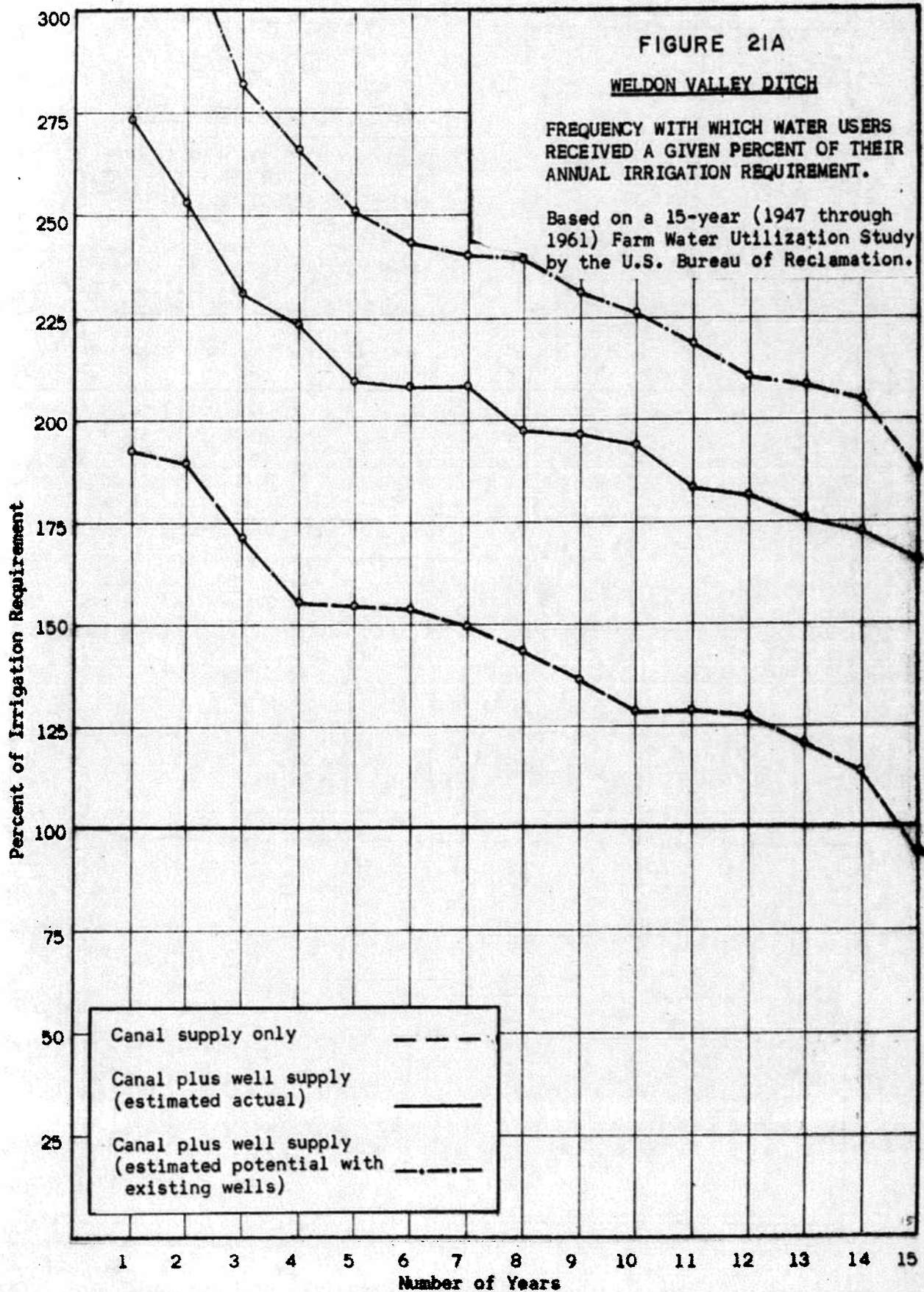


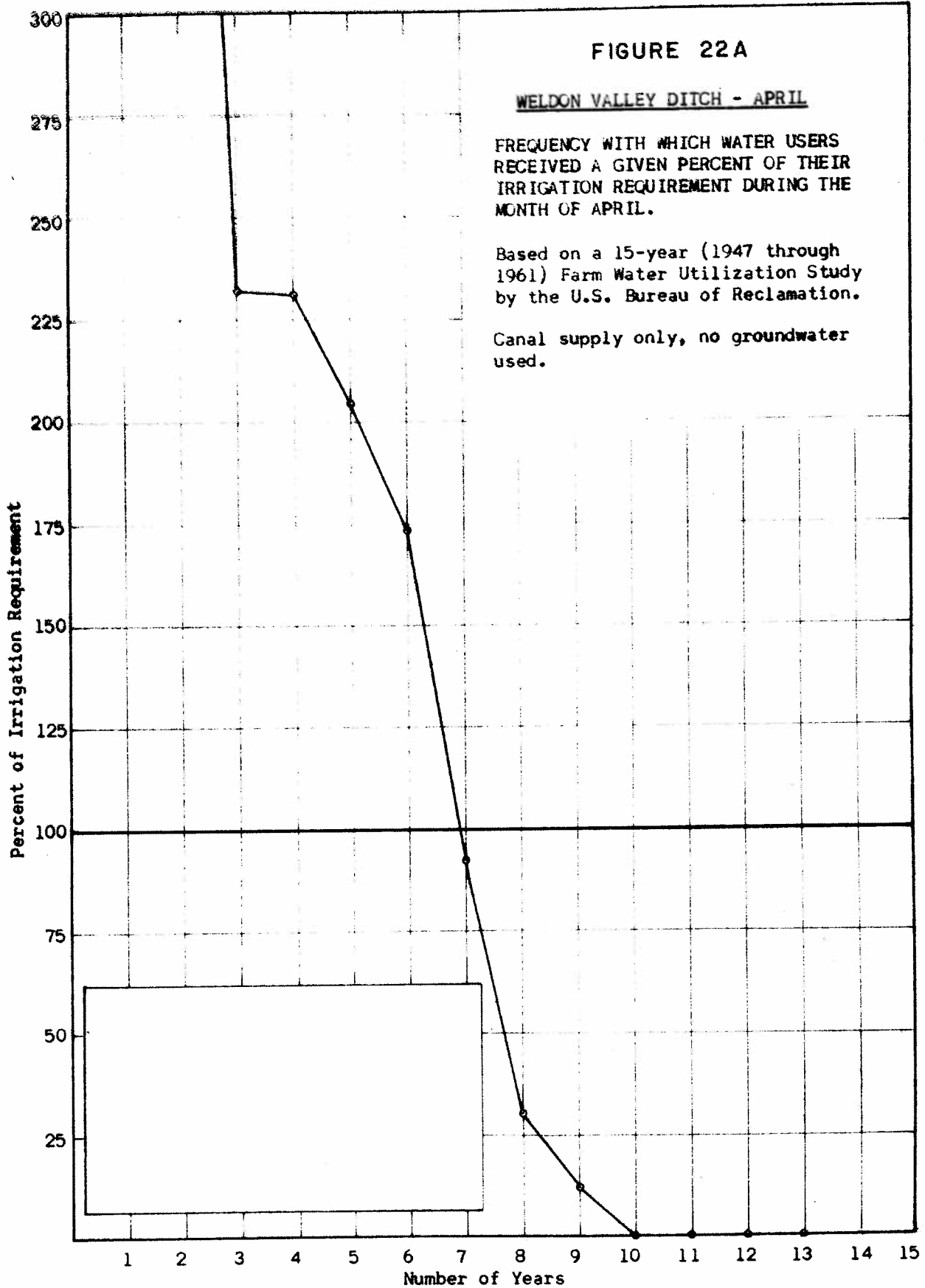




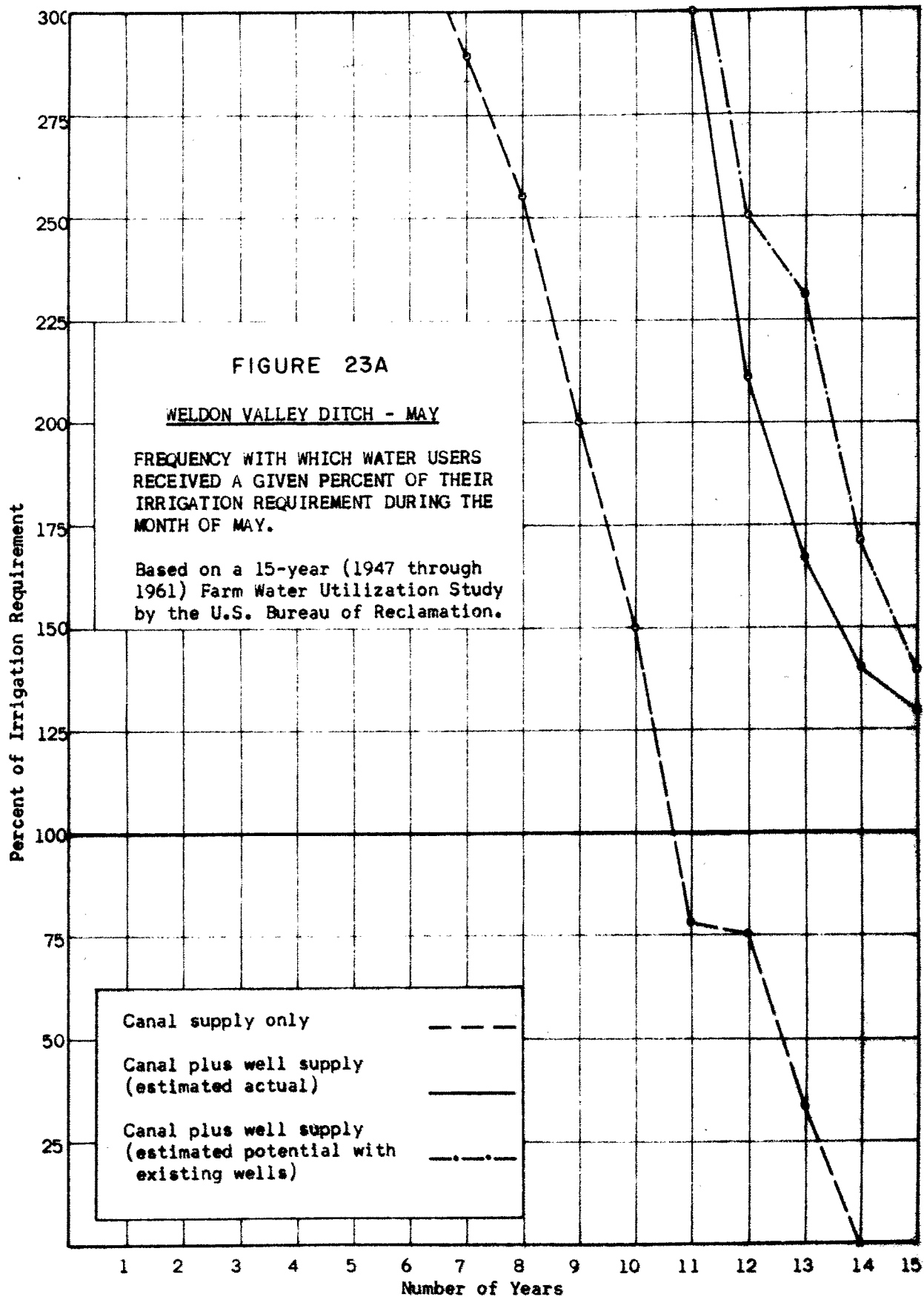


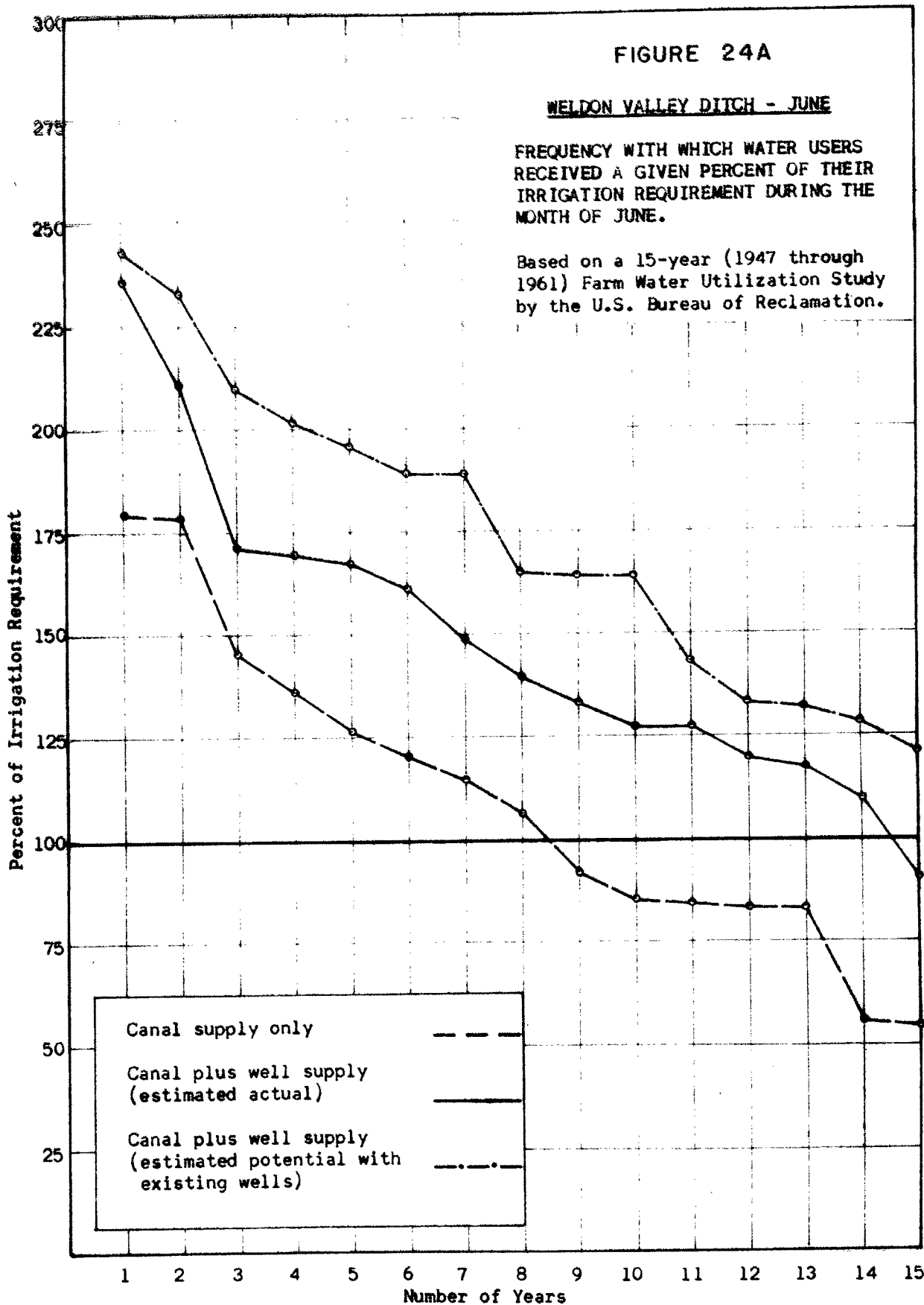


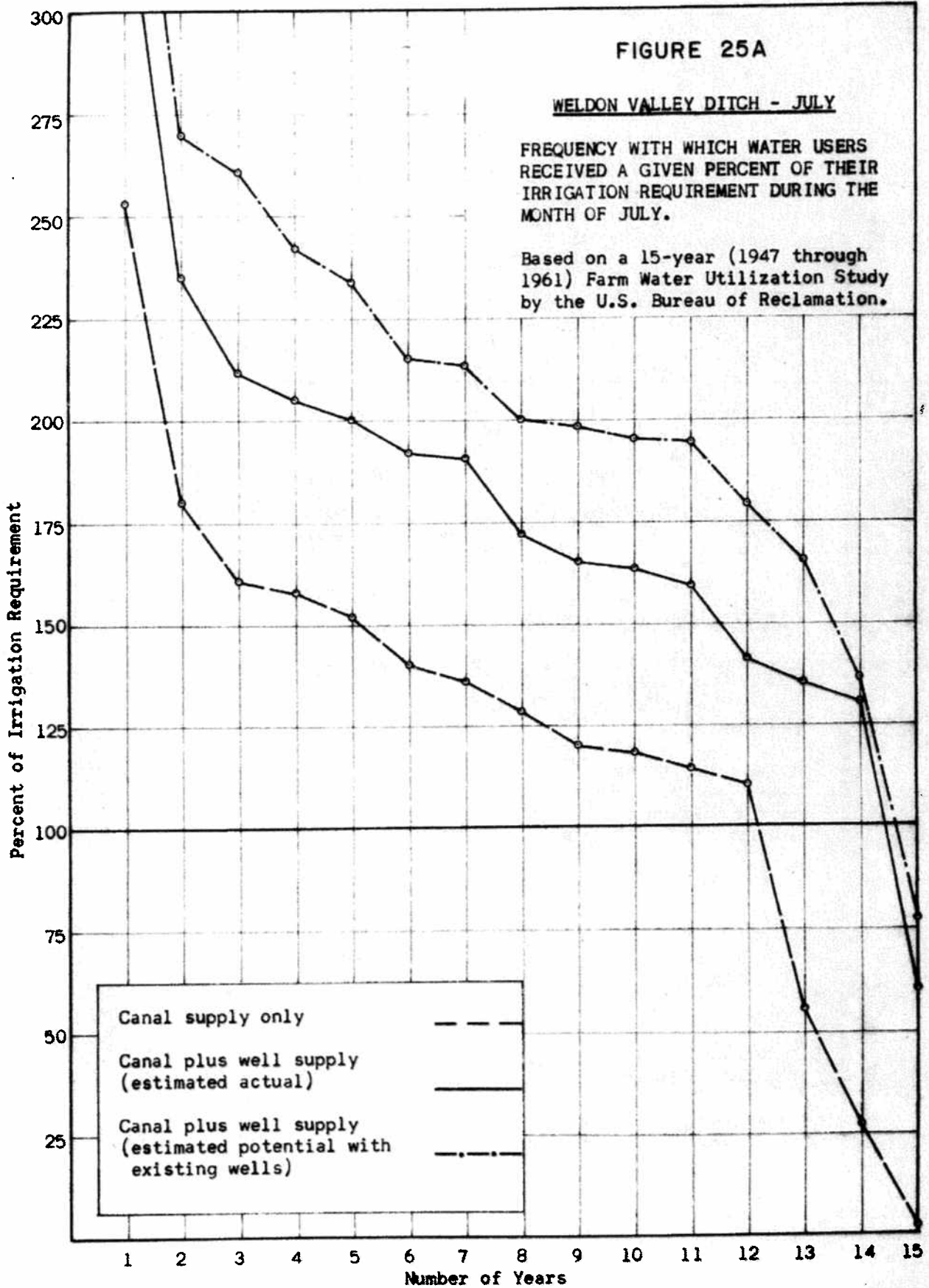


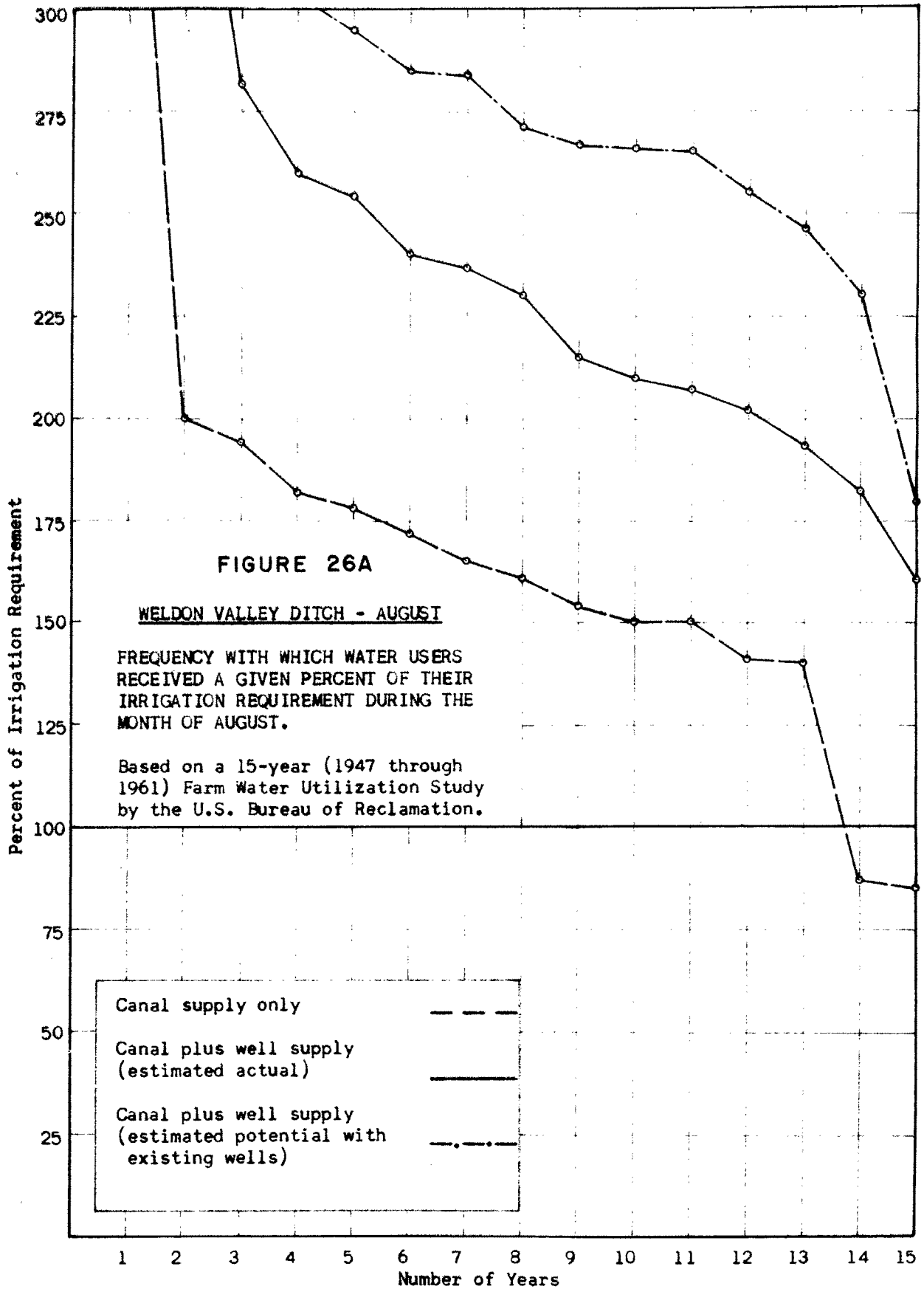


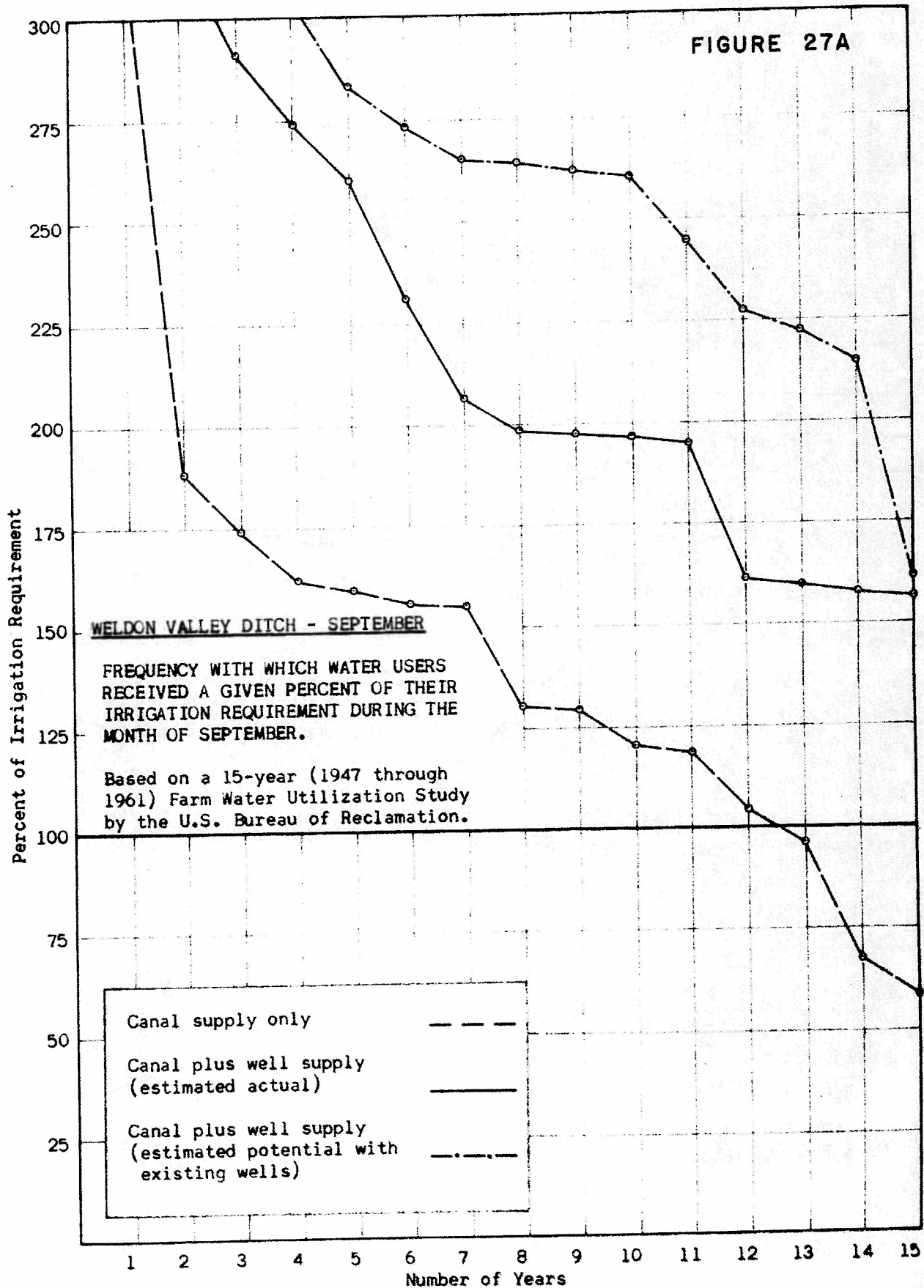


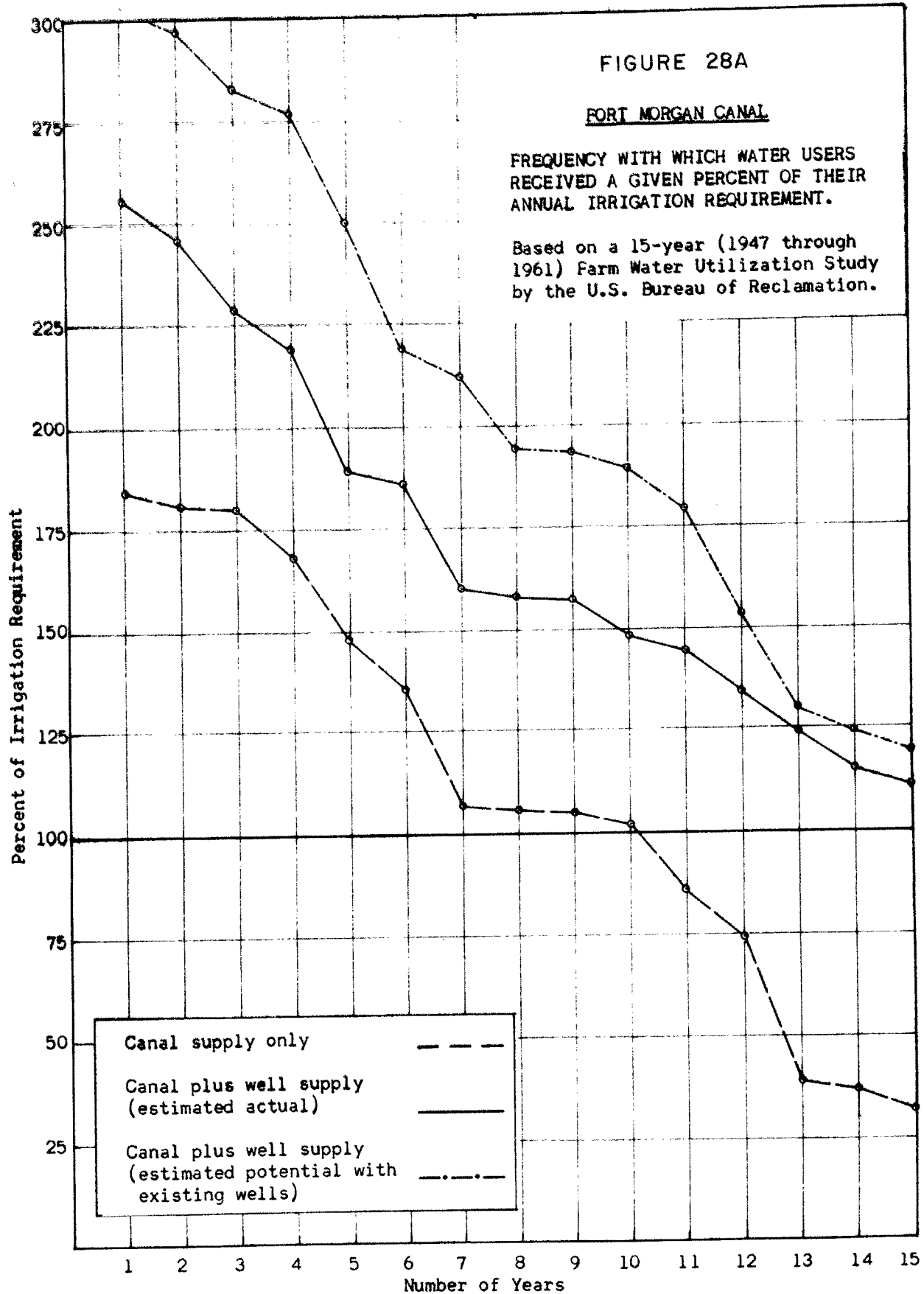


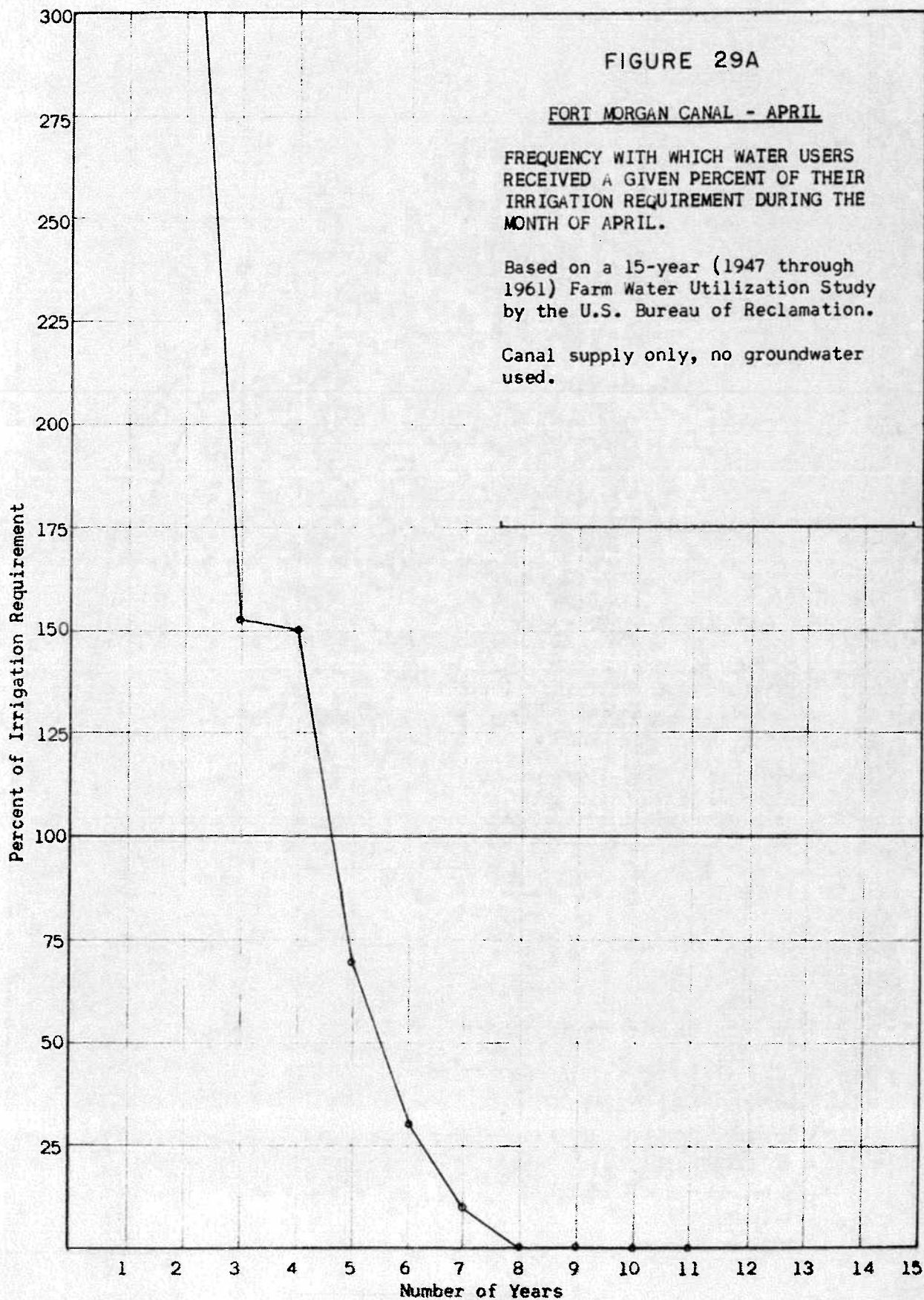


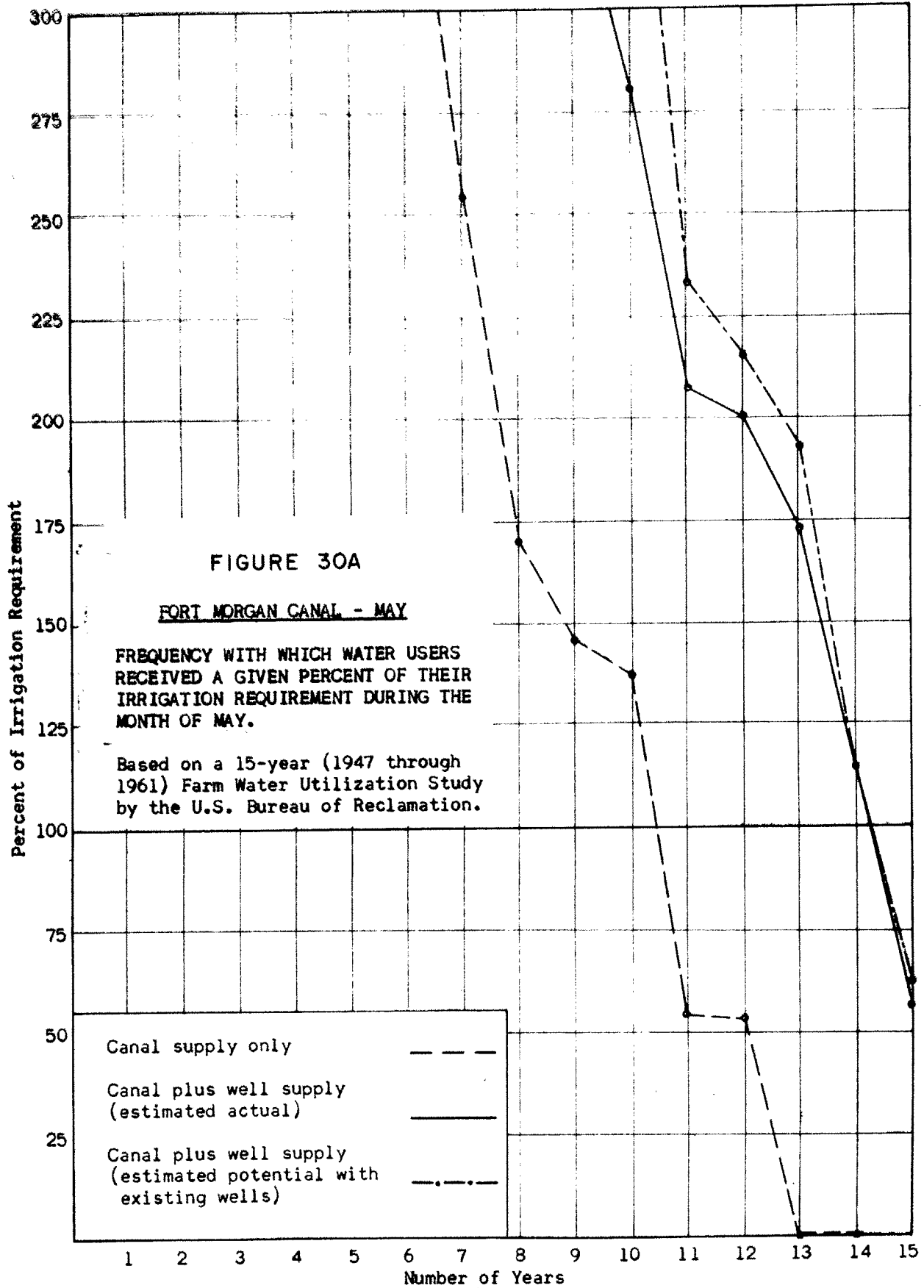




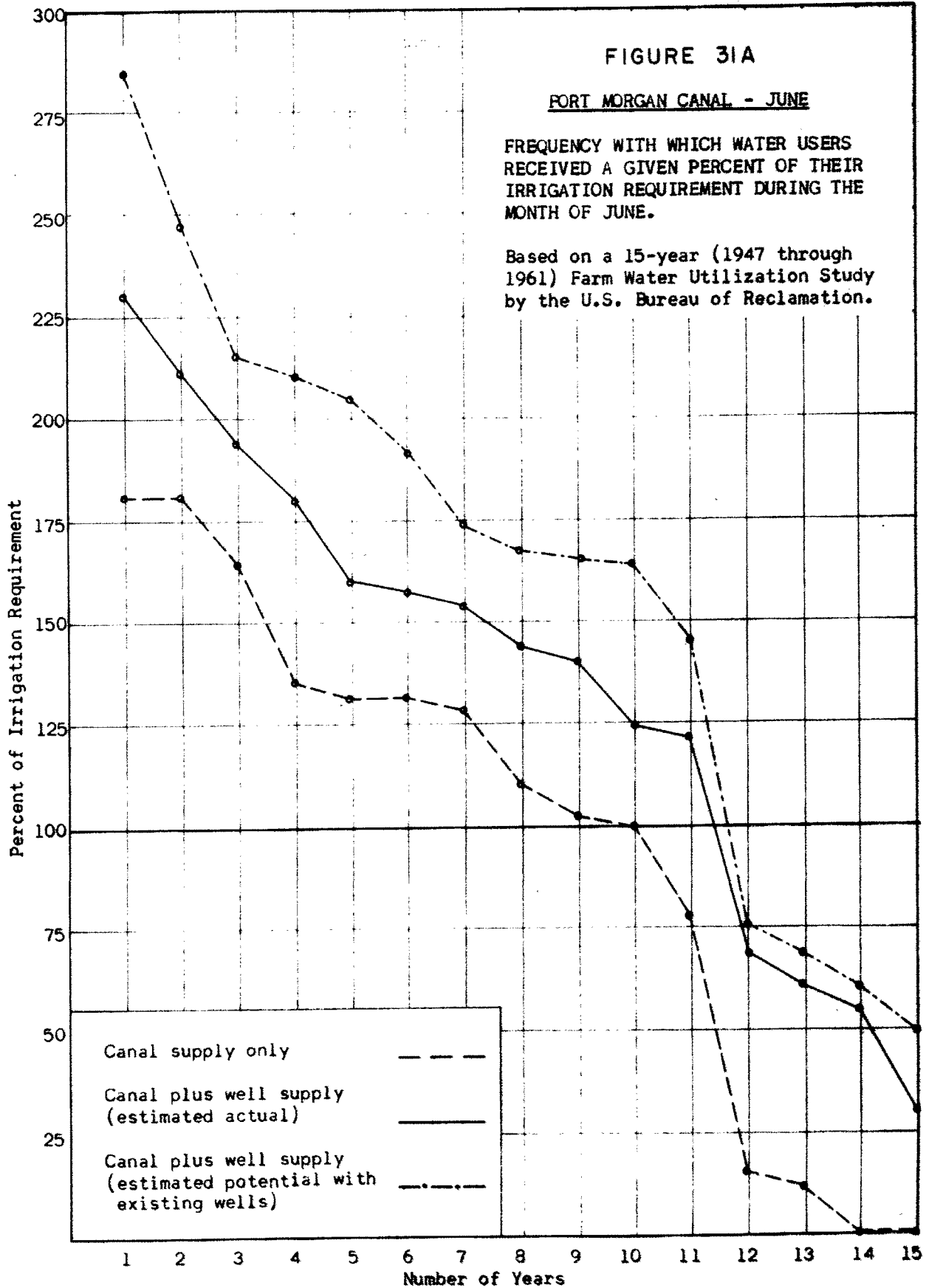


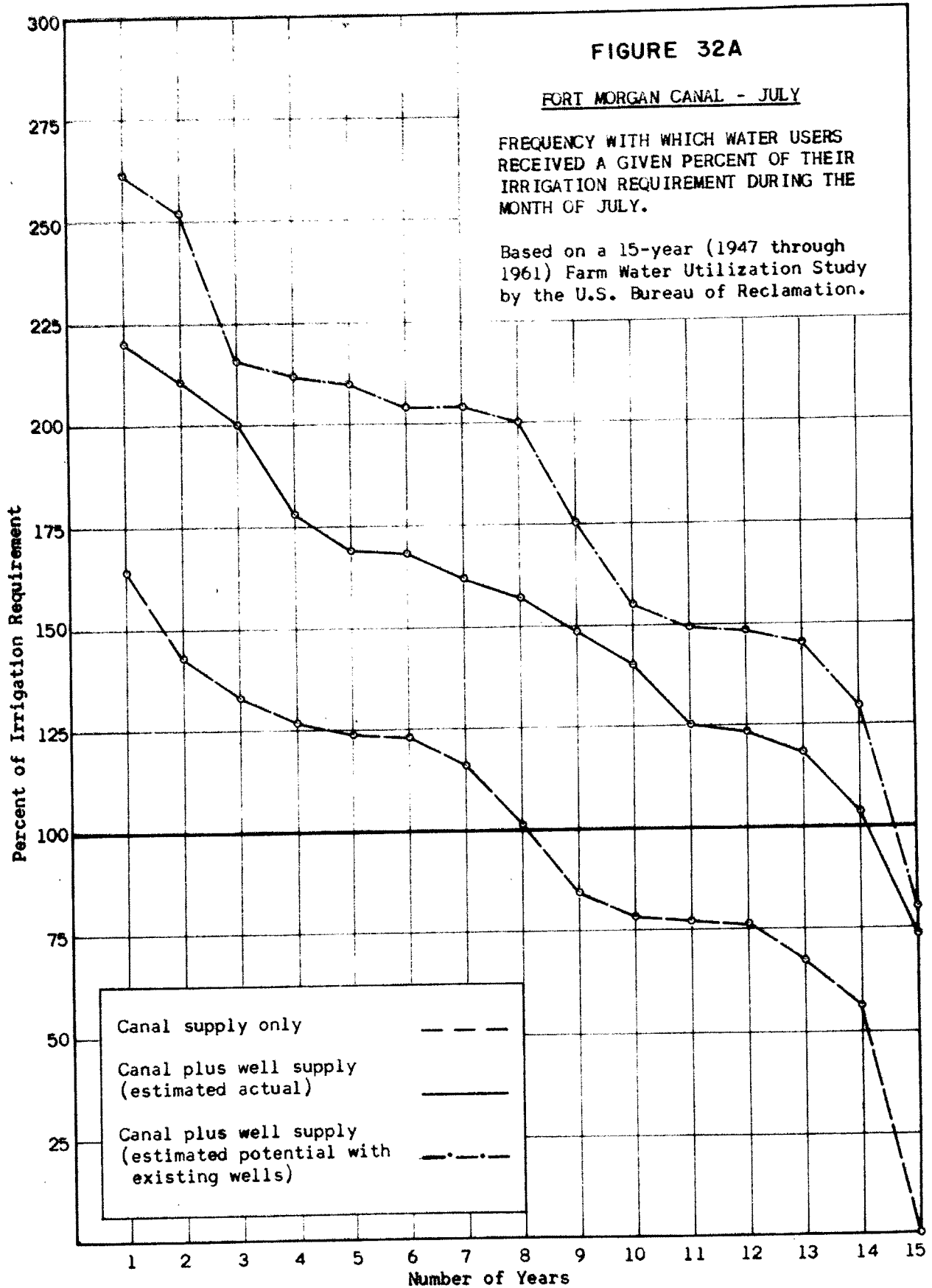


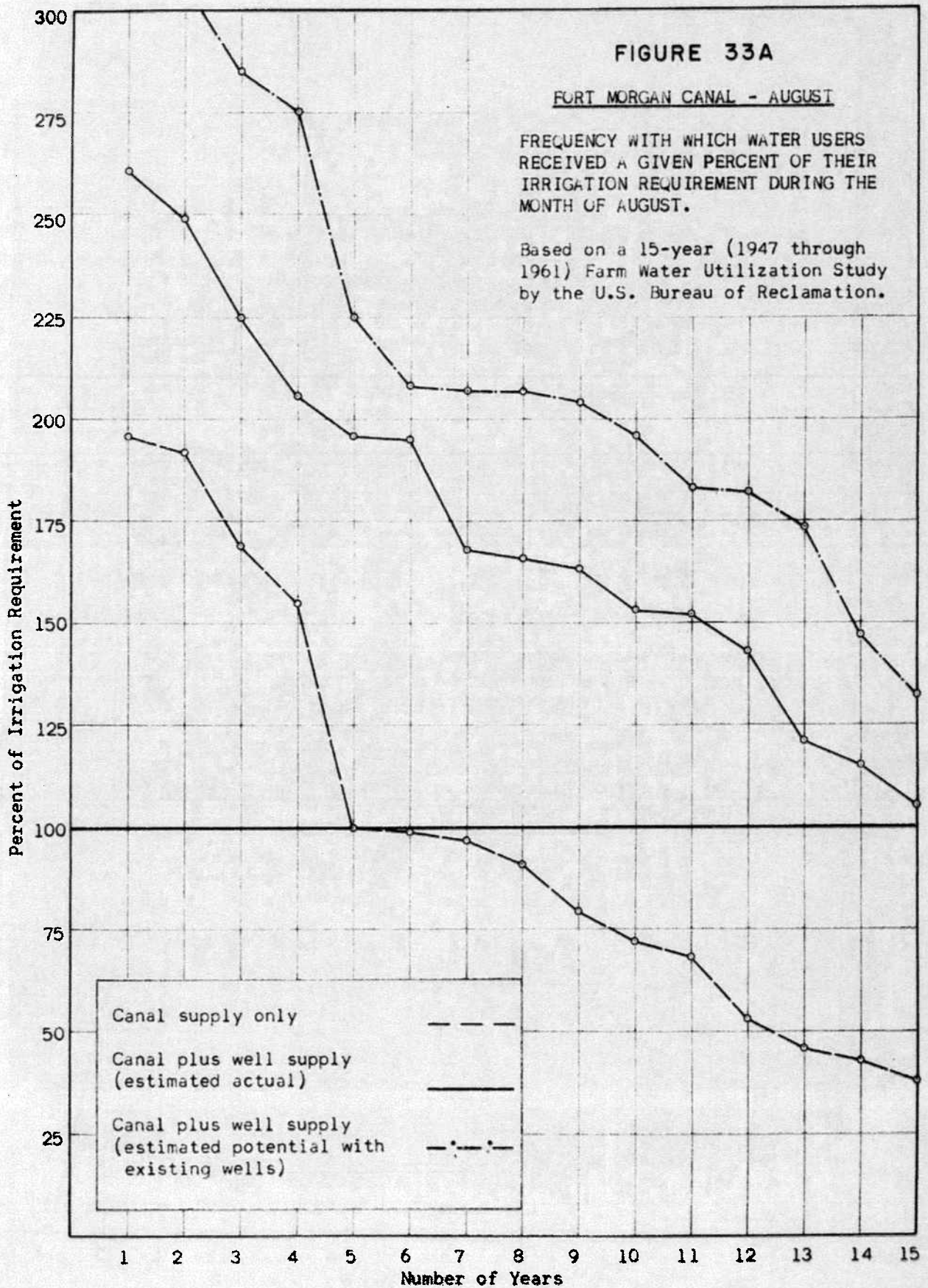


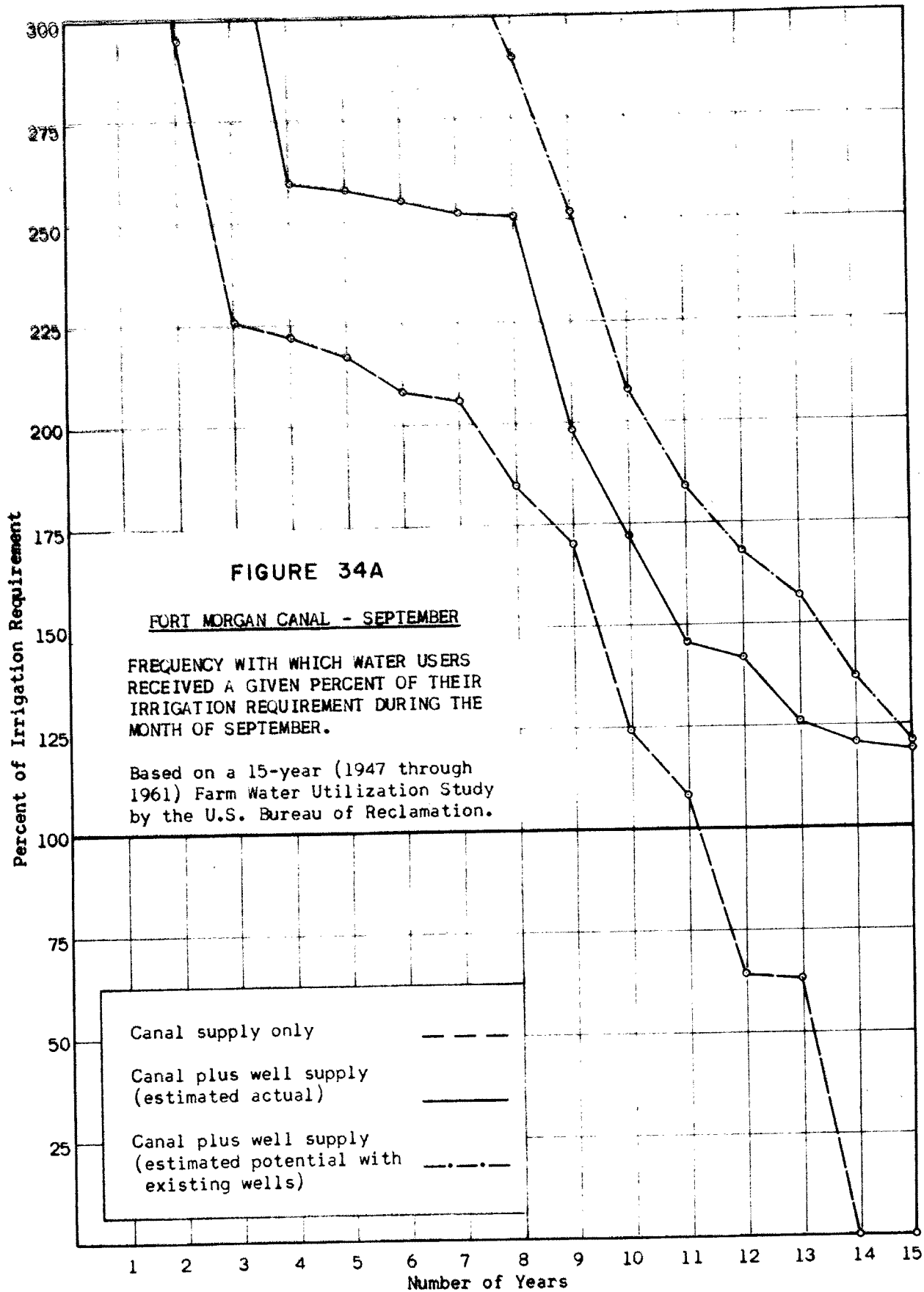


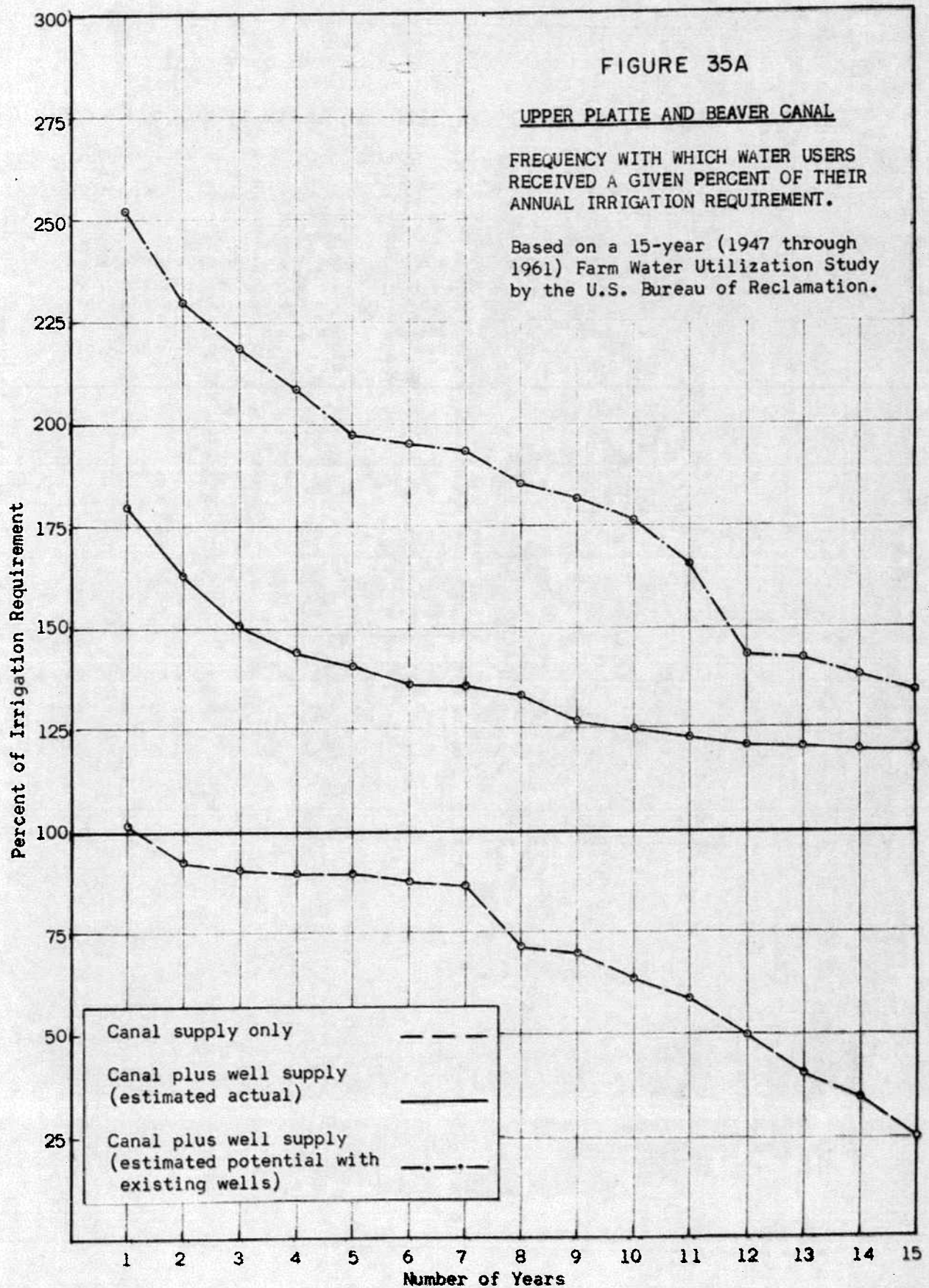


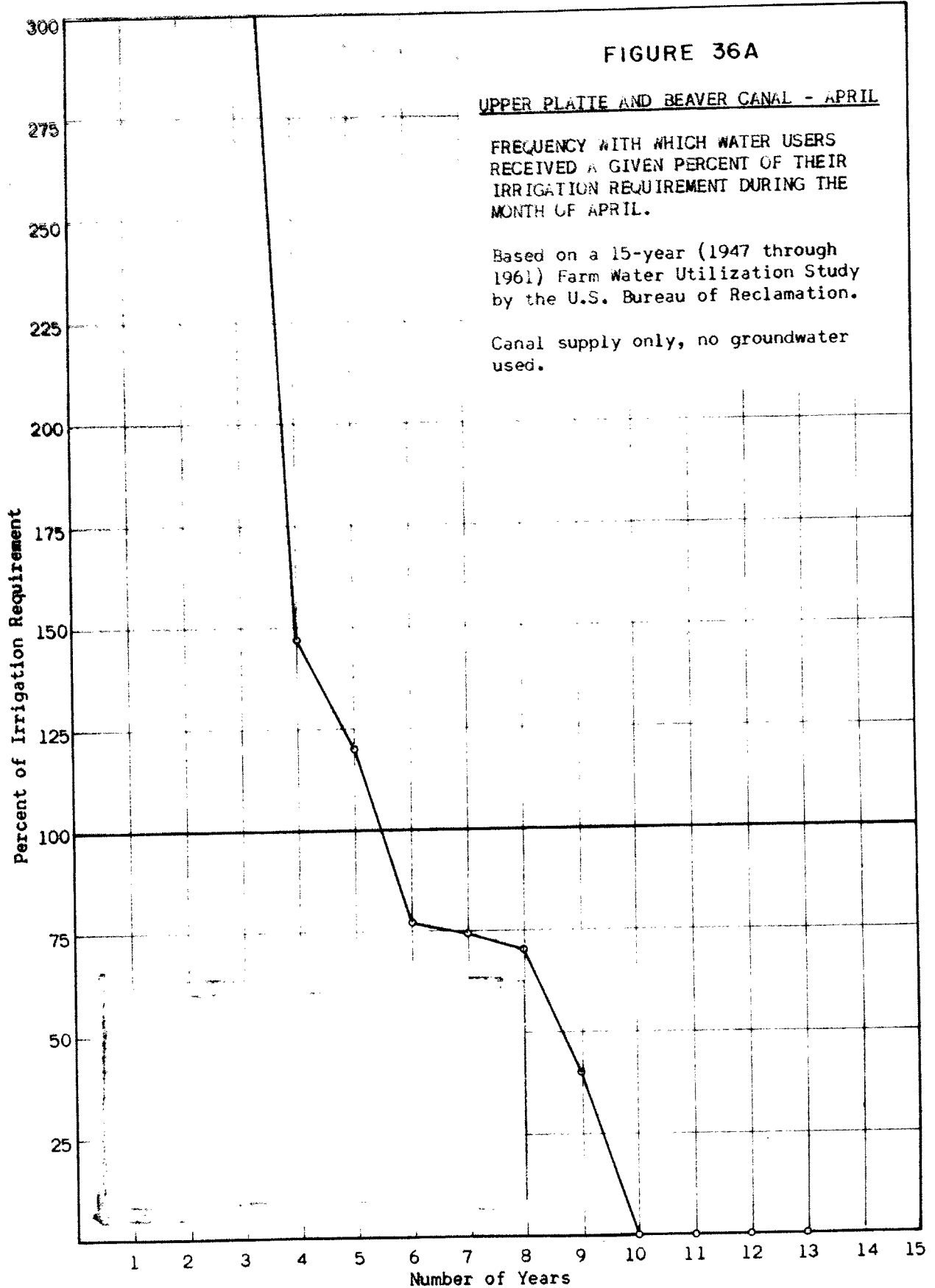




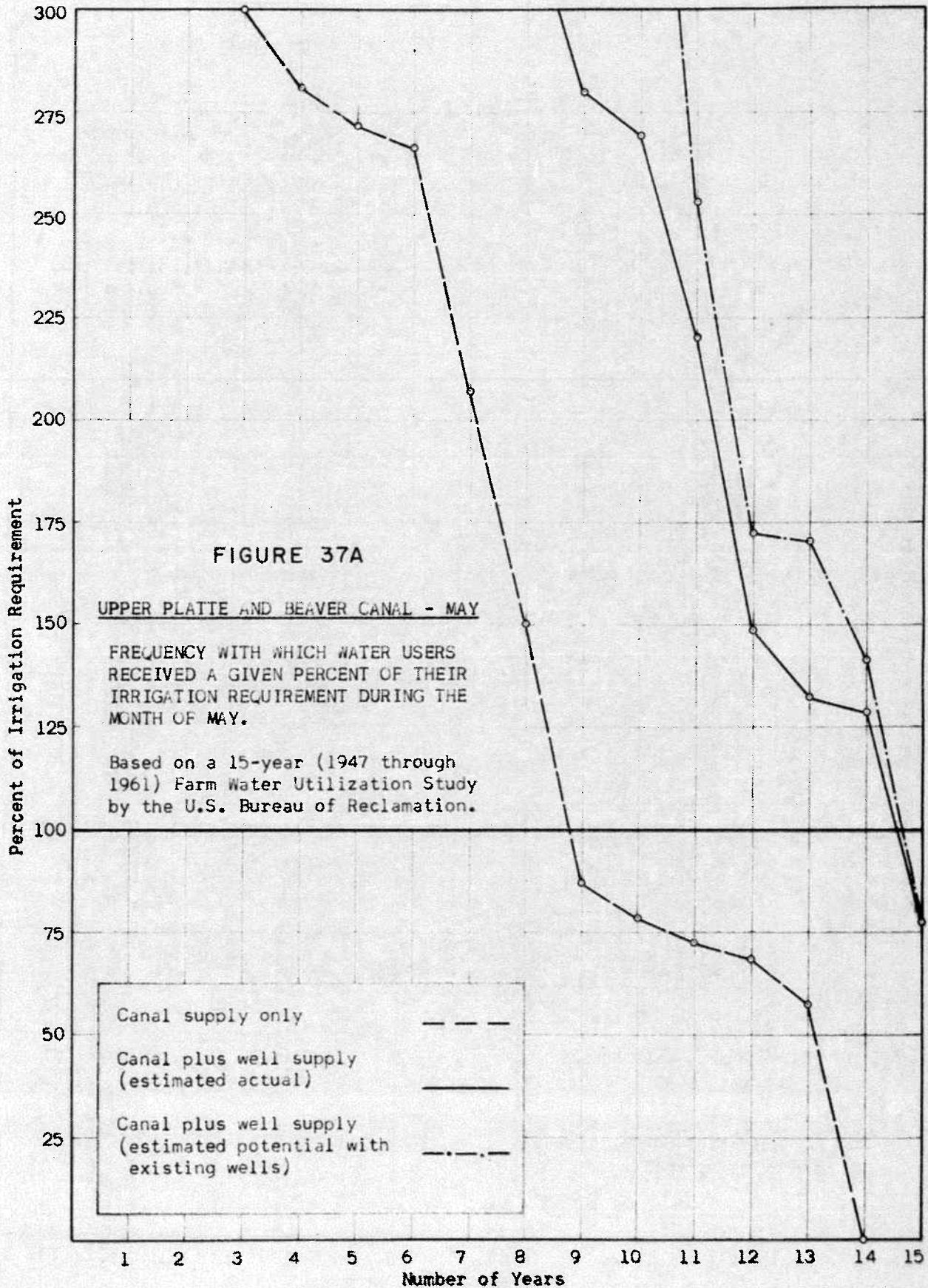


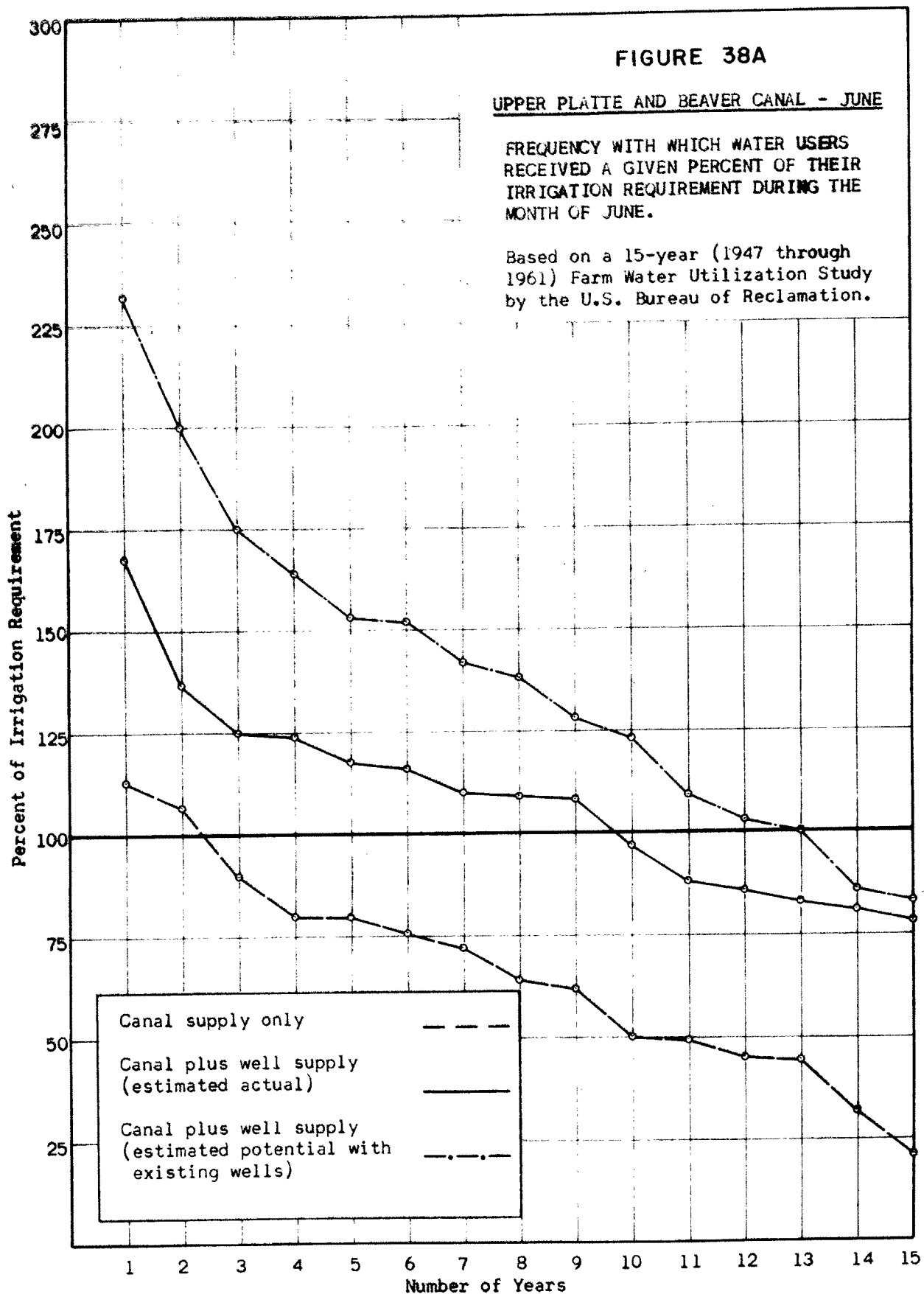














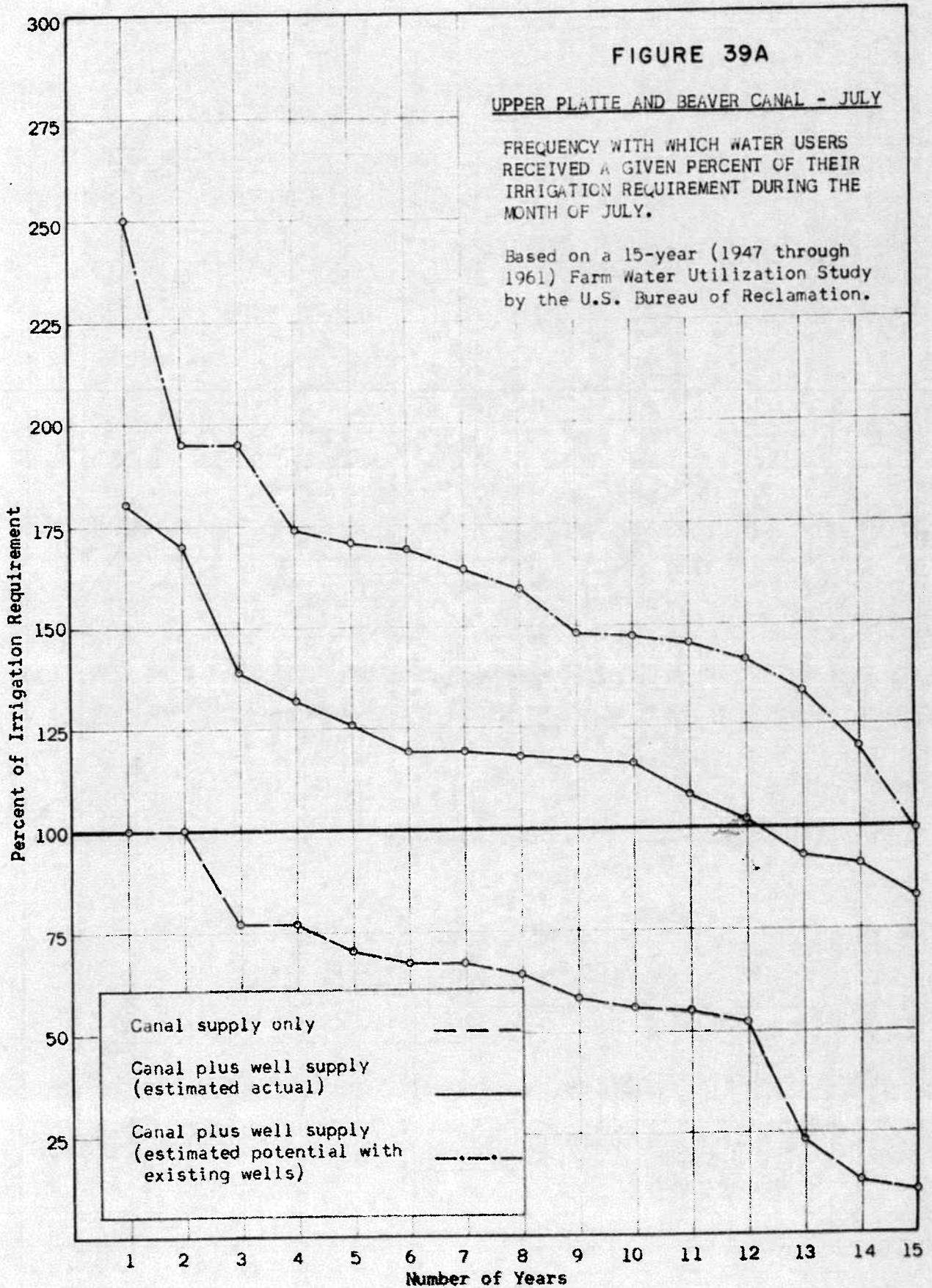
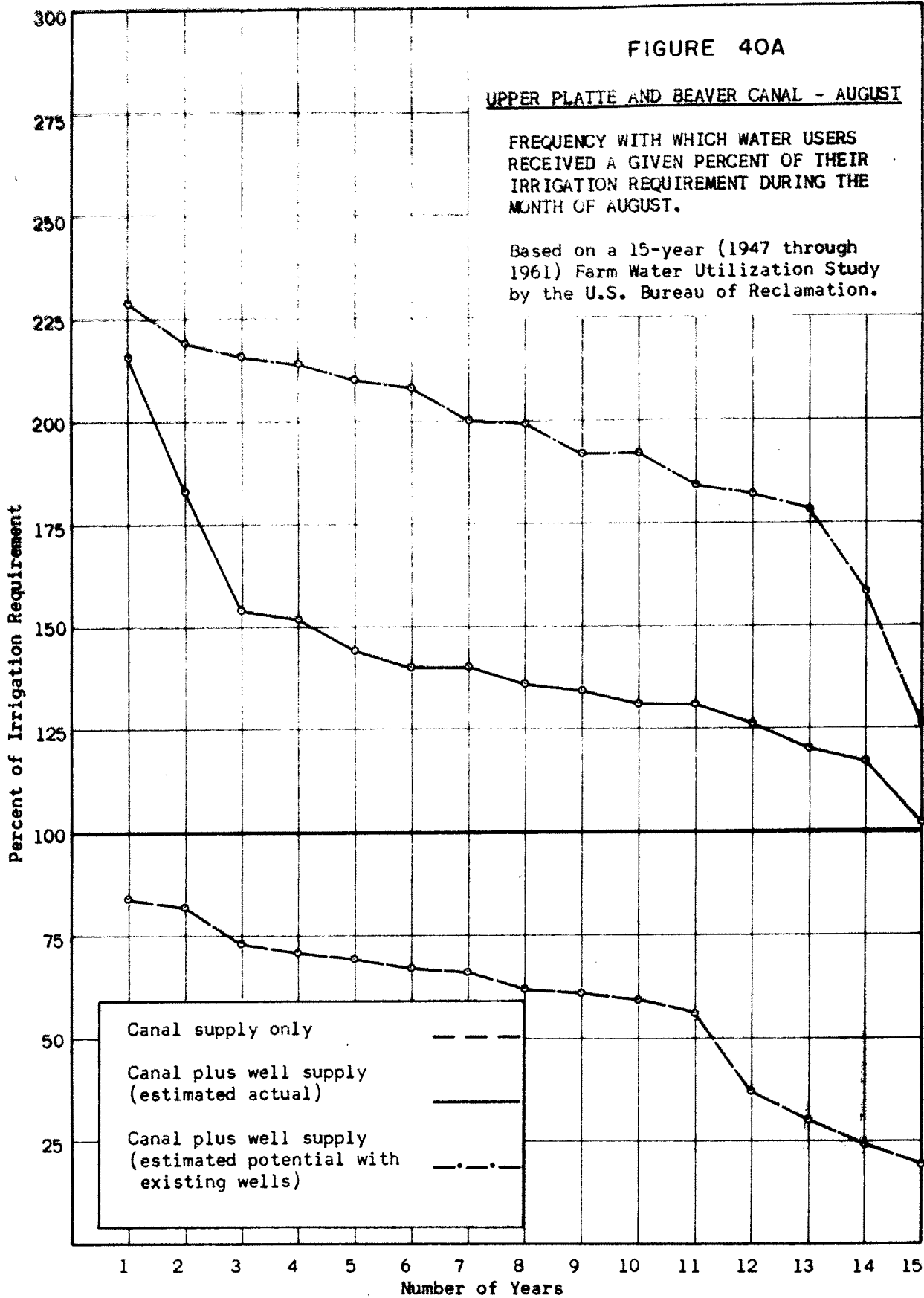


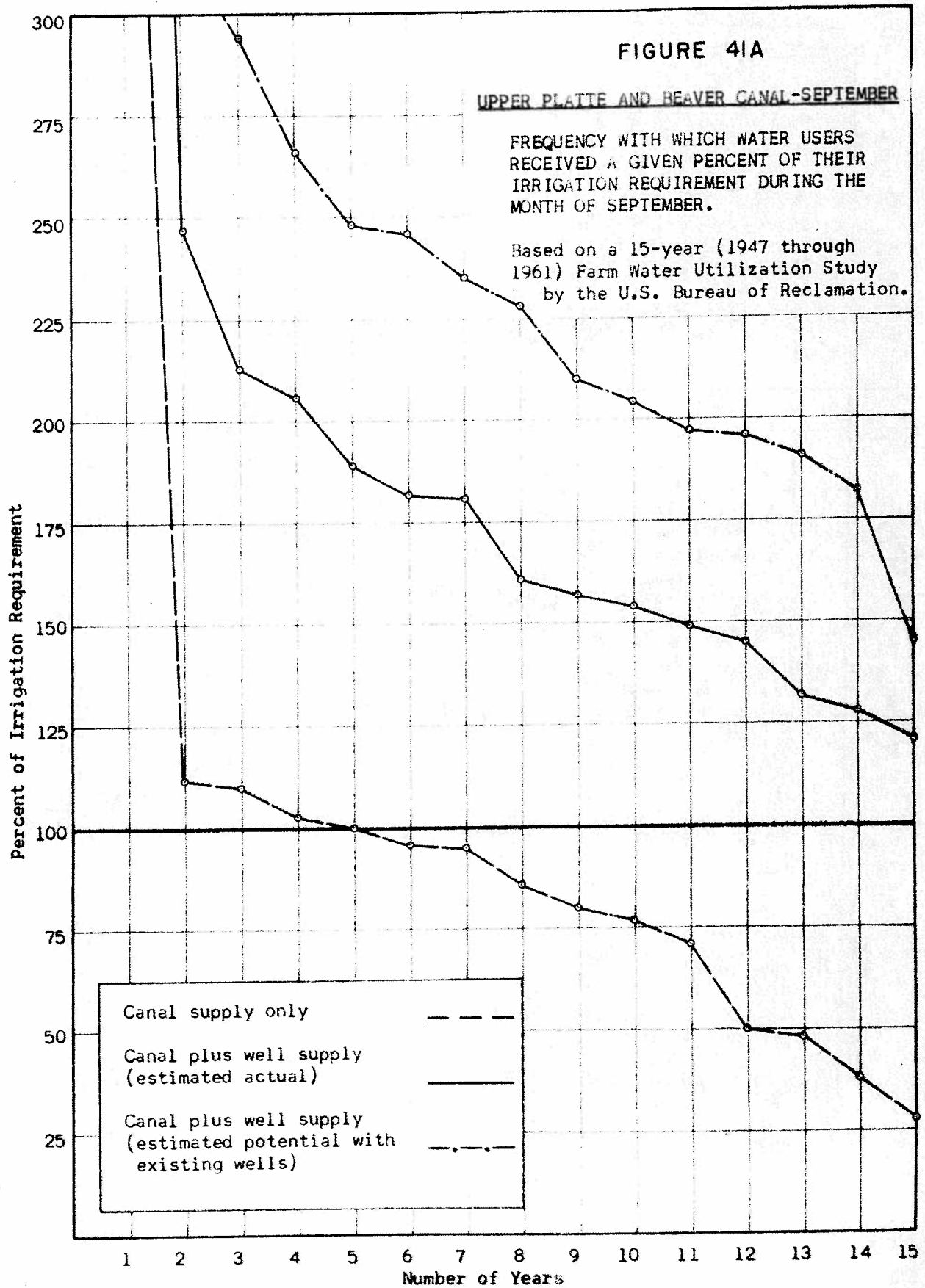
FIGURE 40A

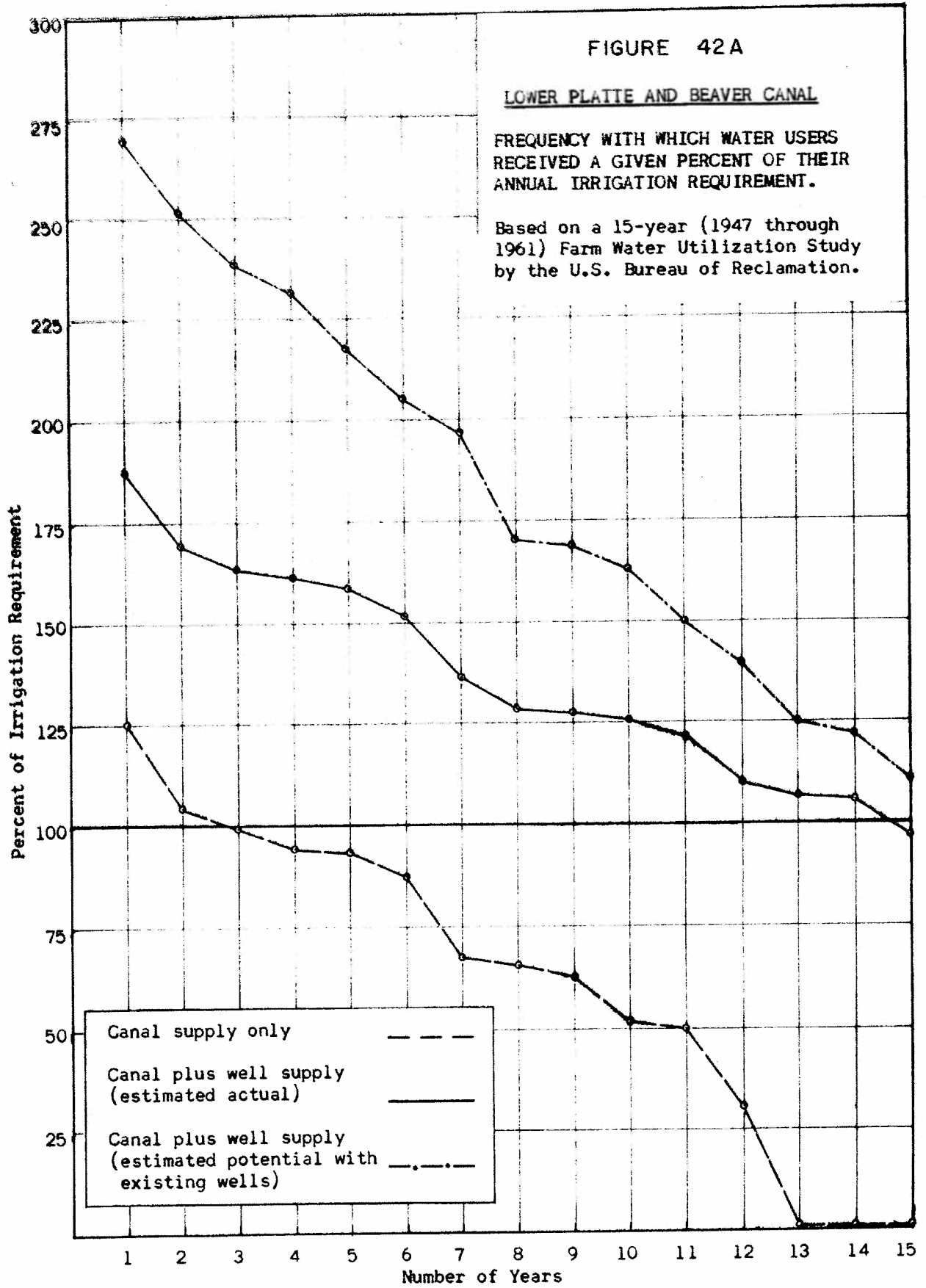
UPPER PLATTE AND BEAVER CANAL - AUGUST

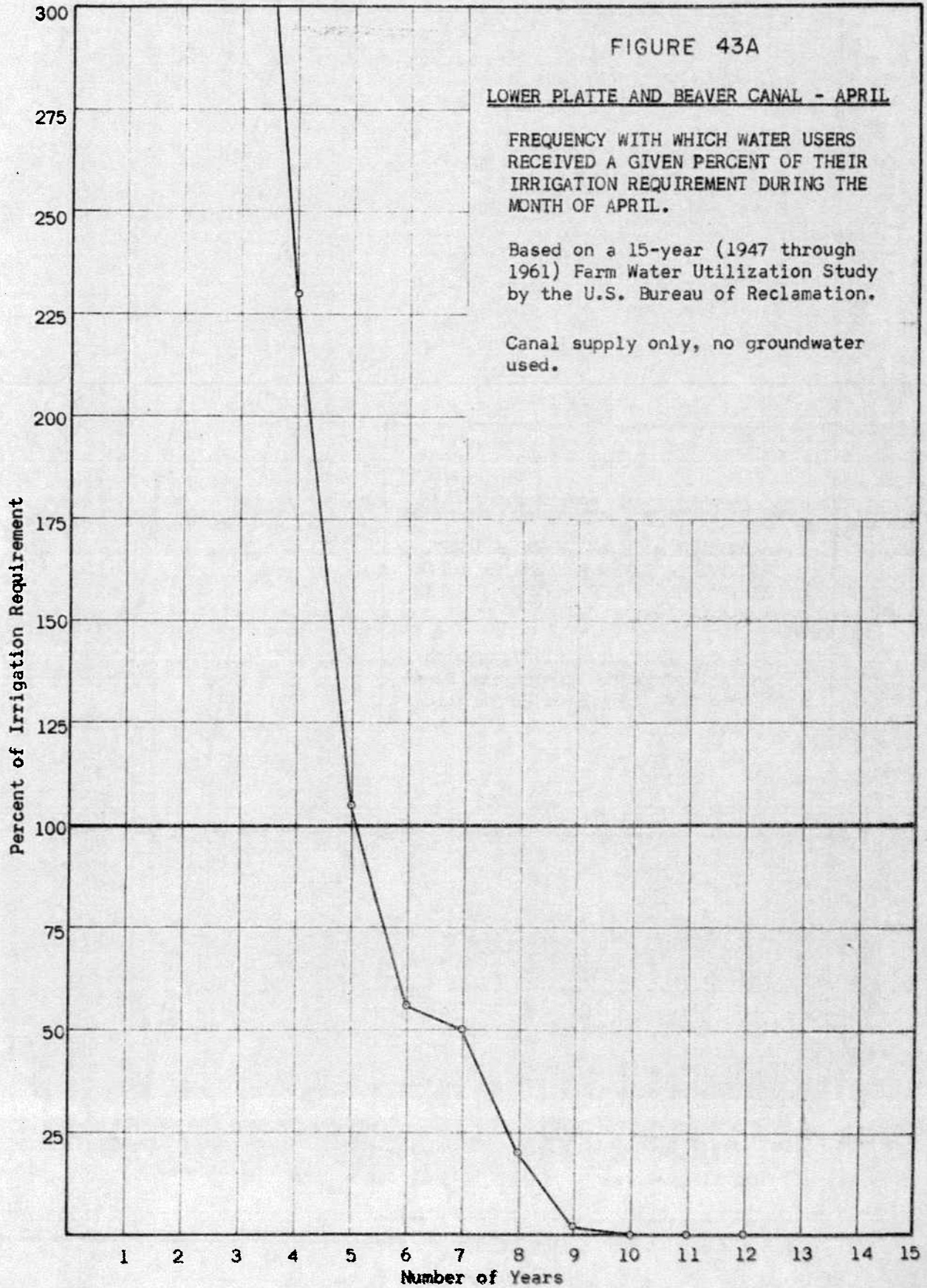
FREQUENCY WITH WHICH WATER USERS RECEIVED A GIVEN PERCENT OF THEIR IRRIGATION REQUIREMENT DURING THE MONTH OF AUGUST.

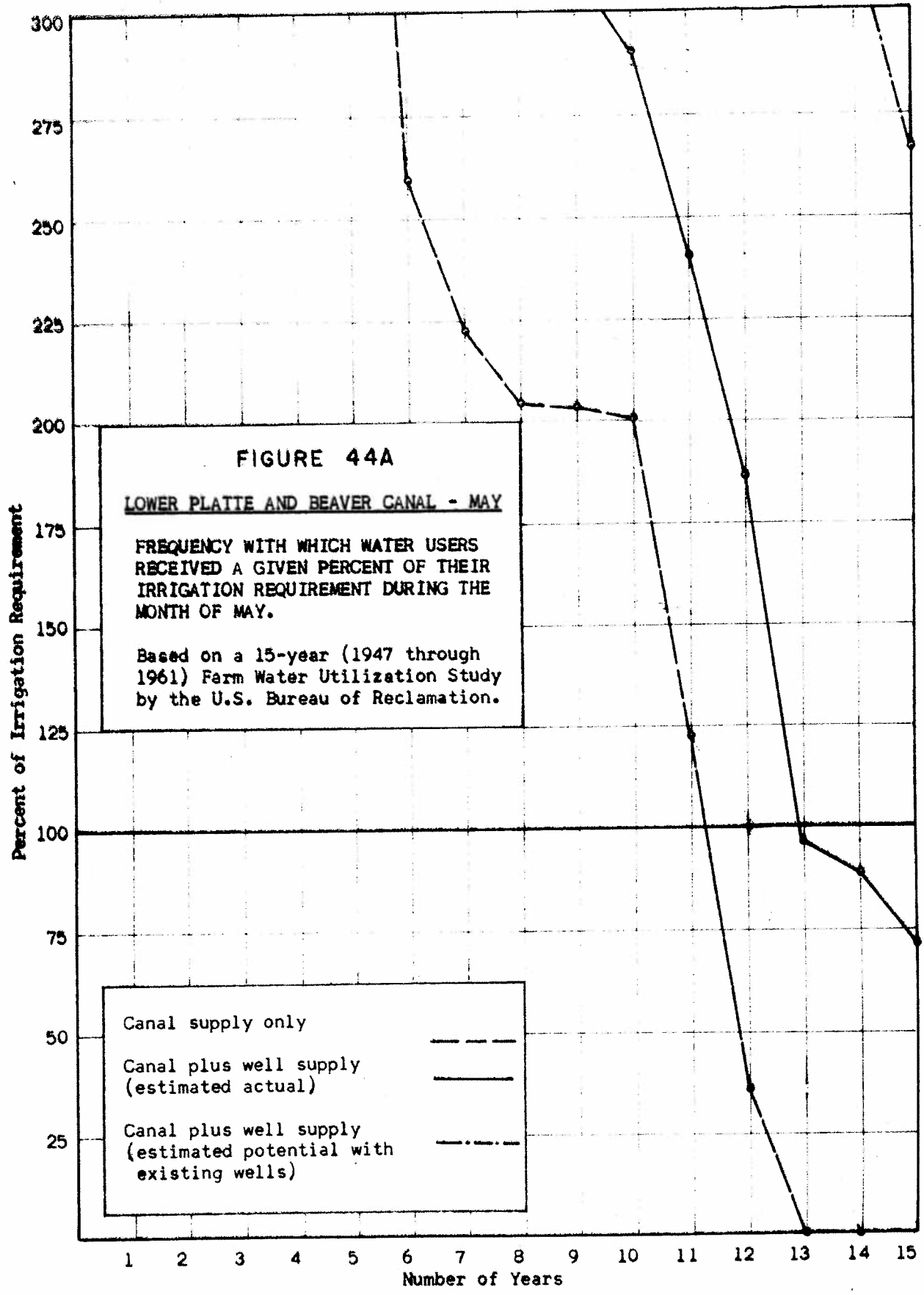
Based on a 15-year (1947 through 1961) Farm Water Utilization Study by the U.S. Bureau of Reclamation.



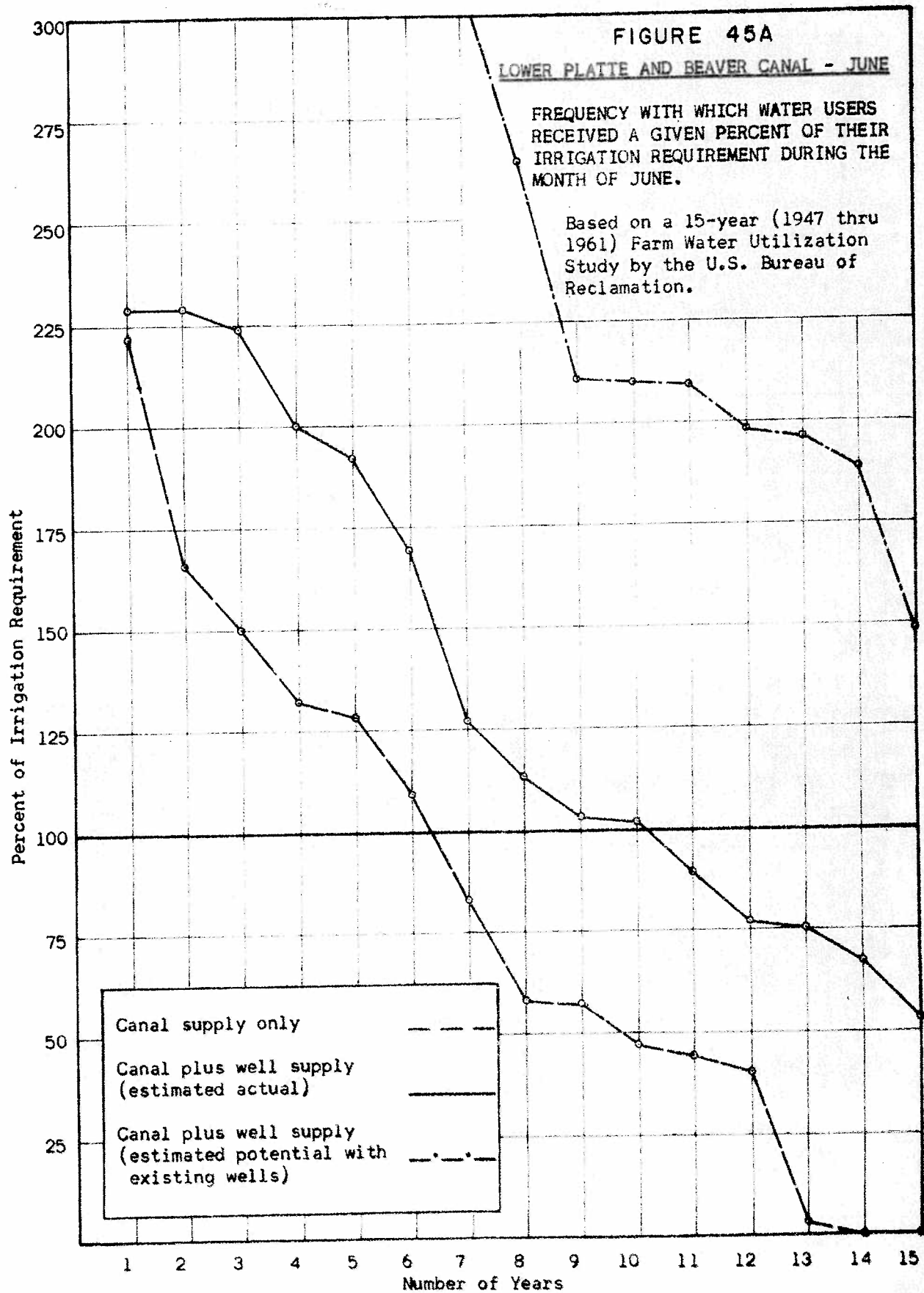


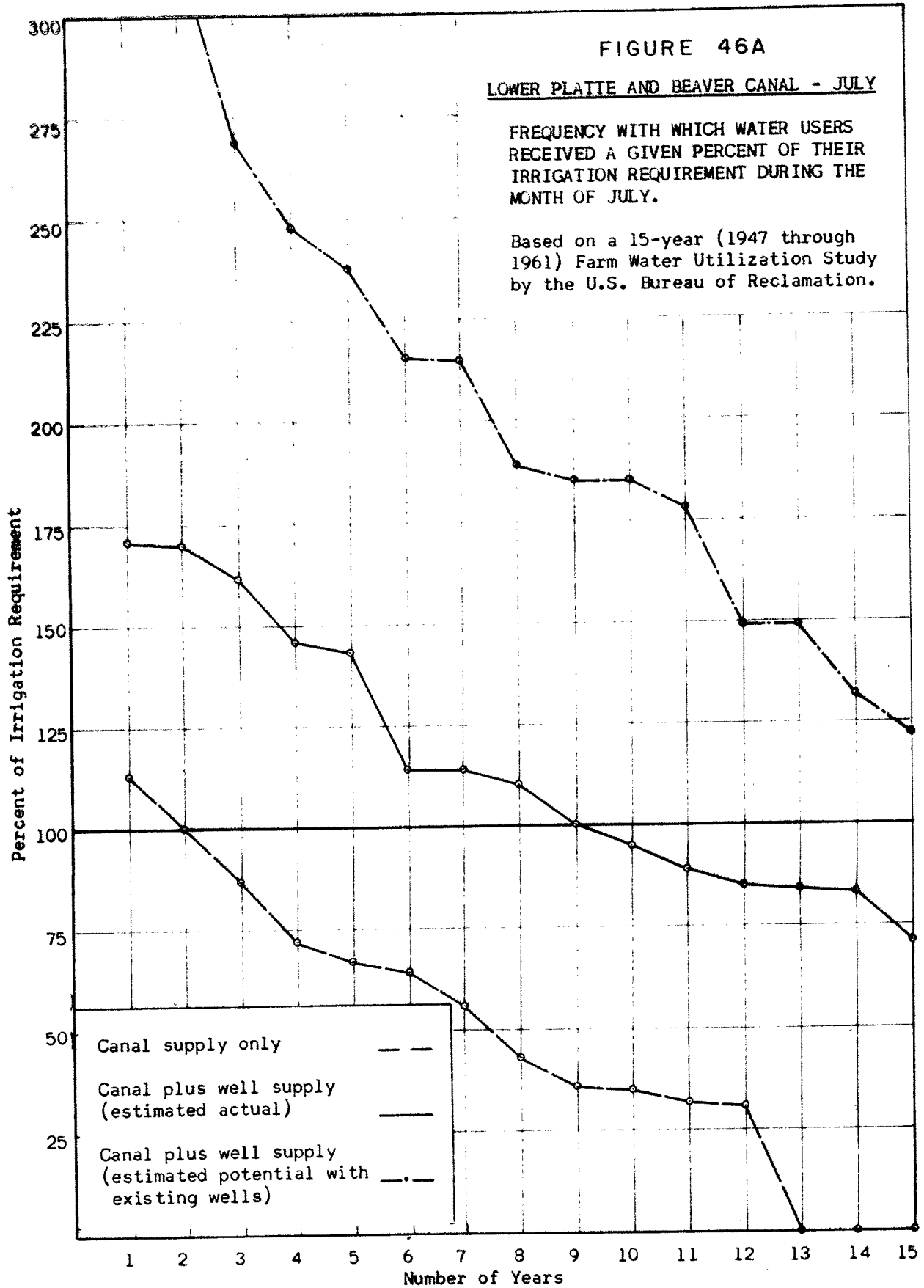




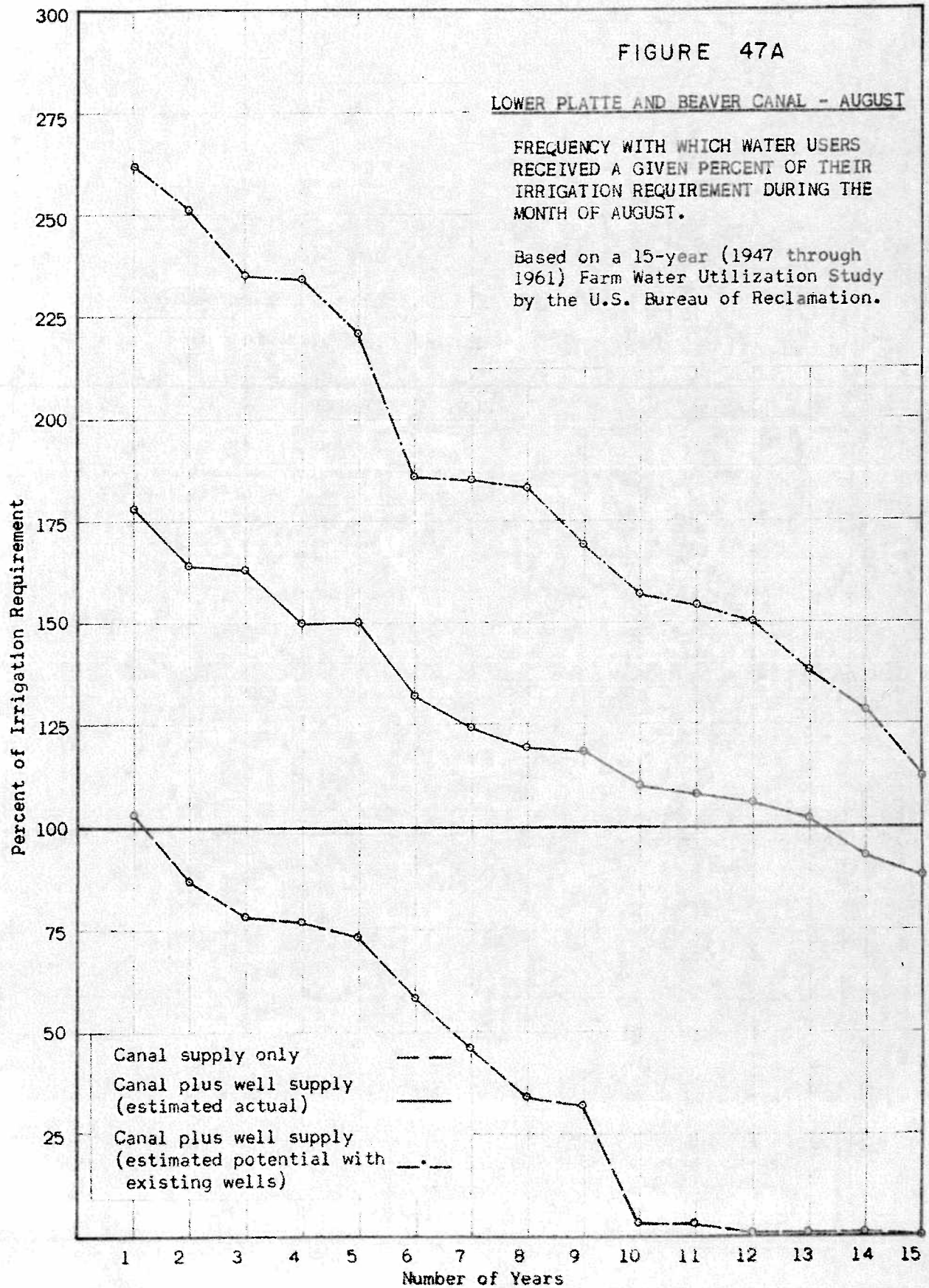


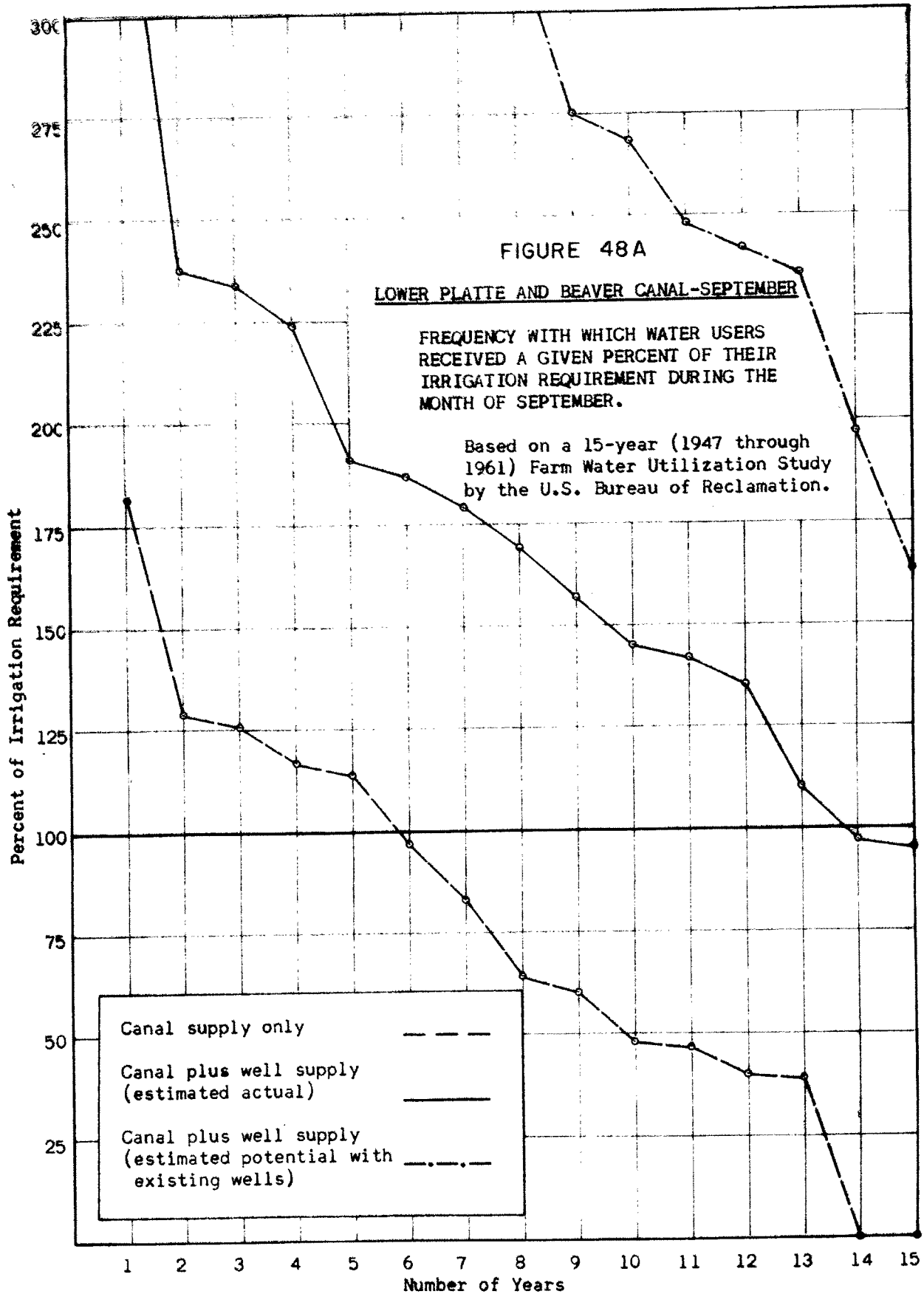


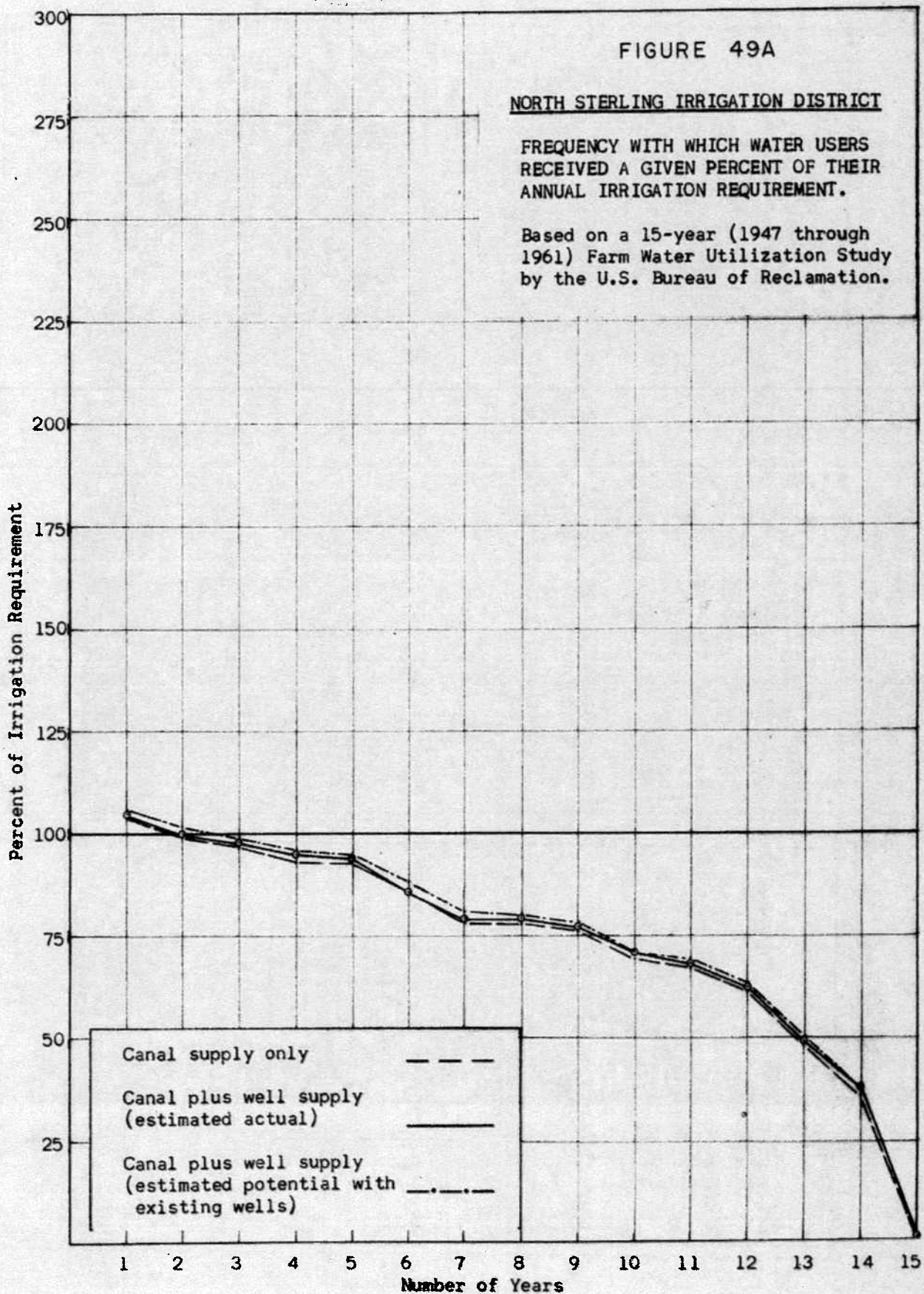


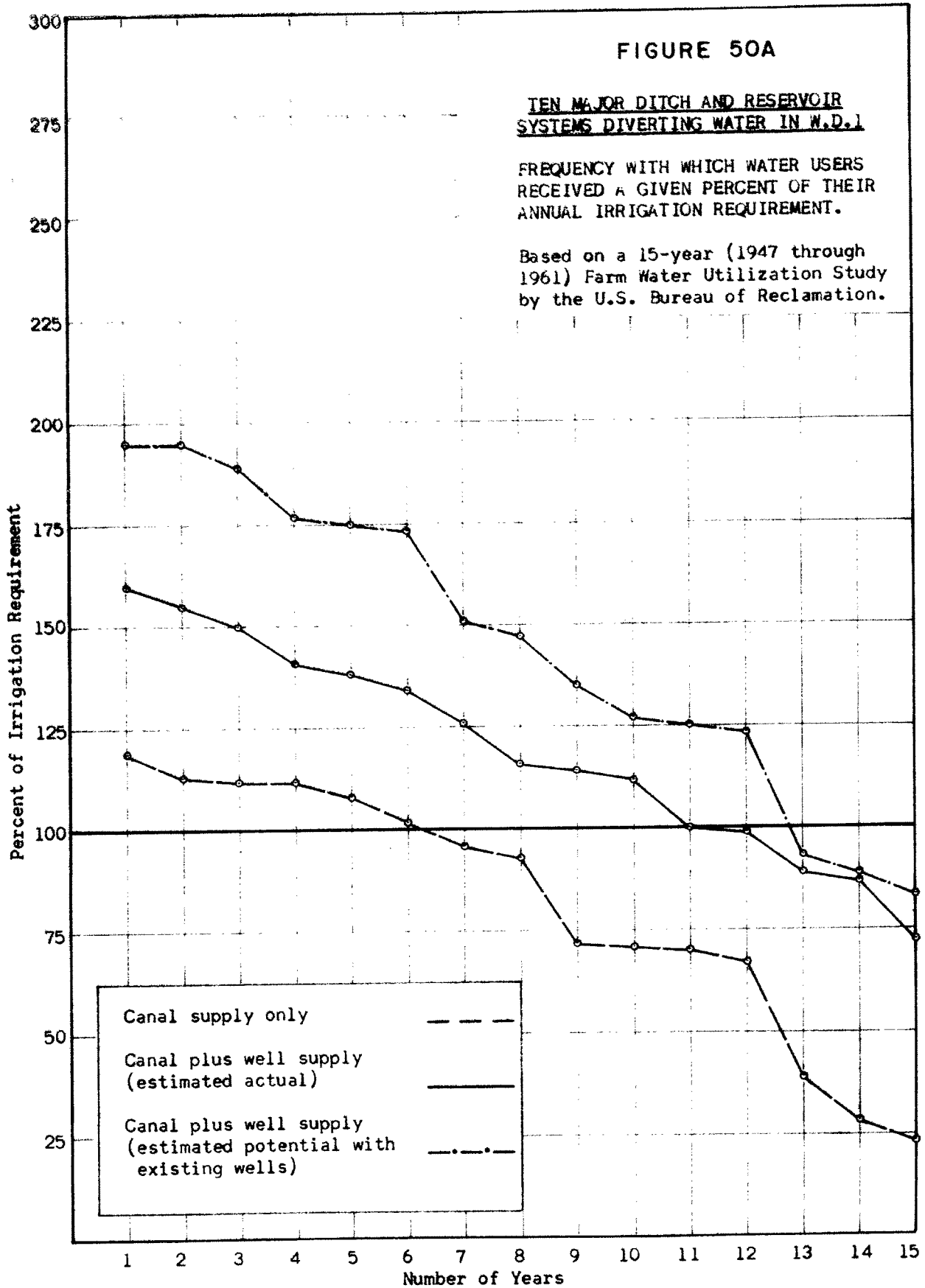


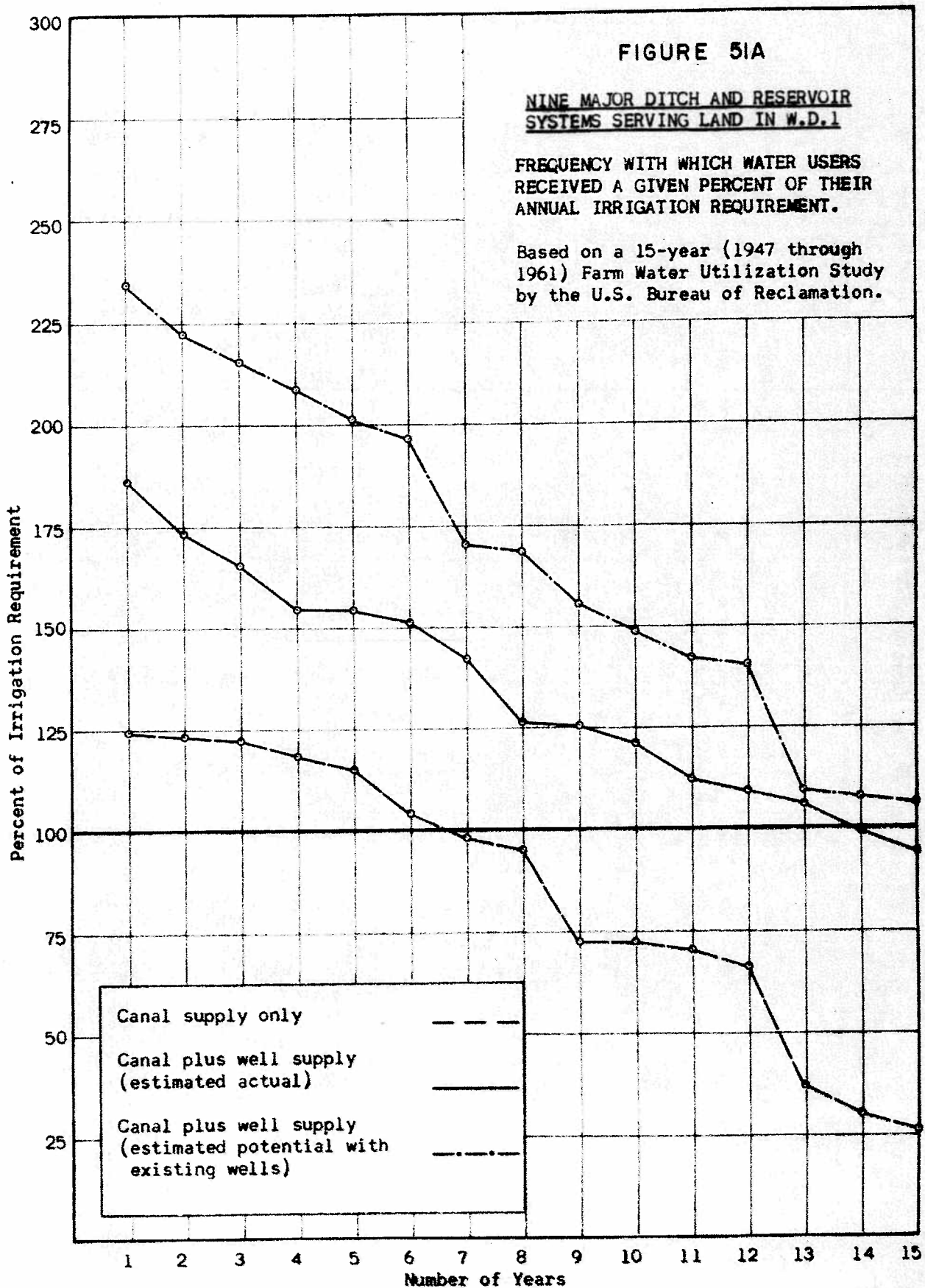


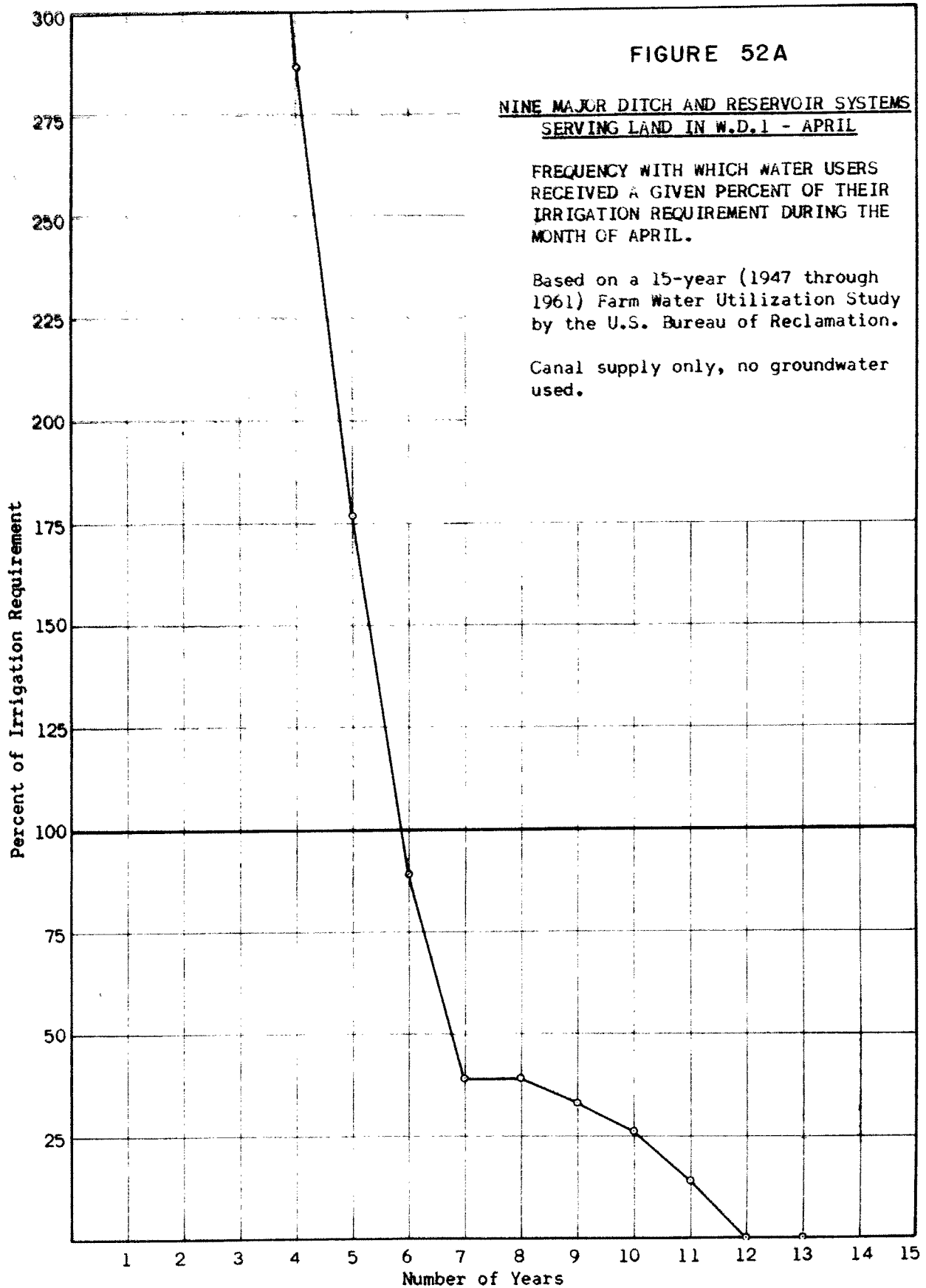




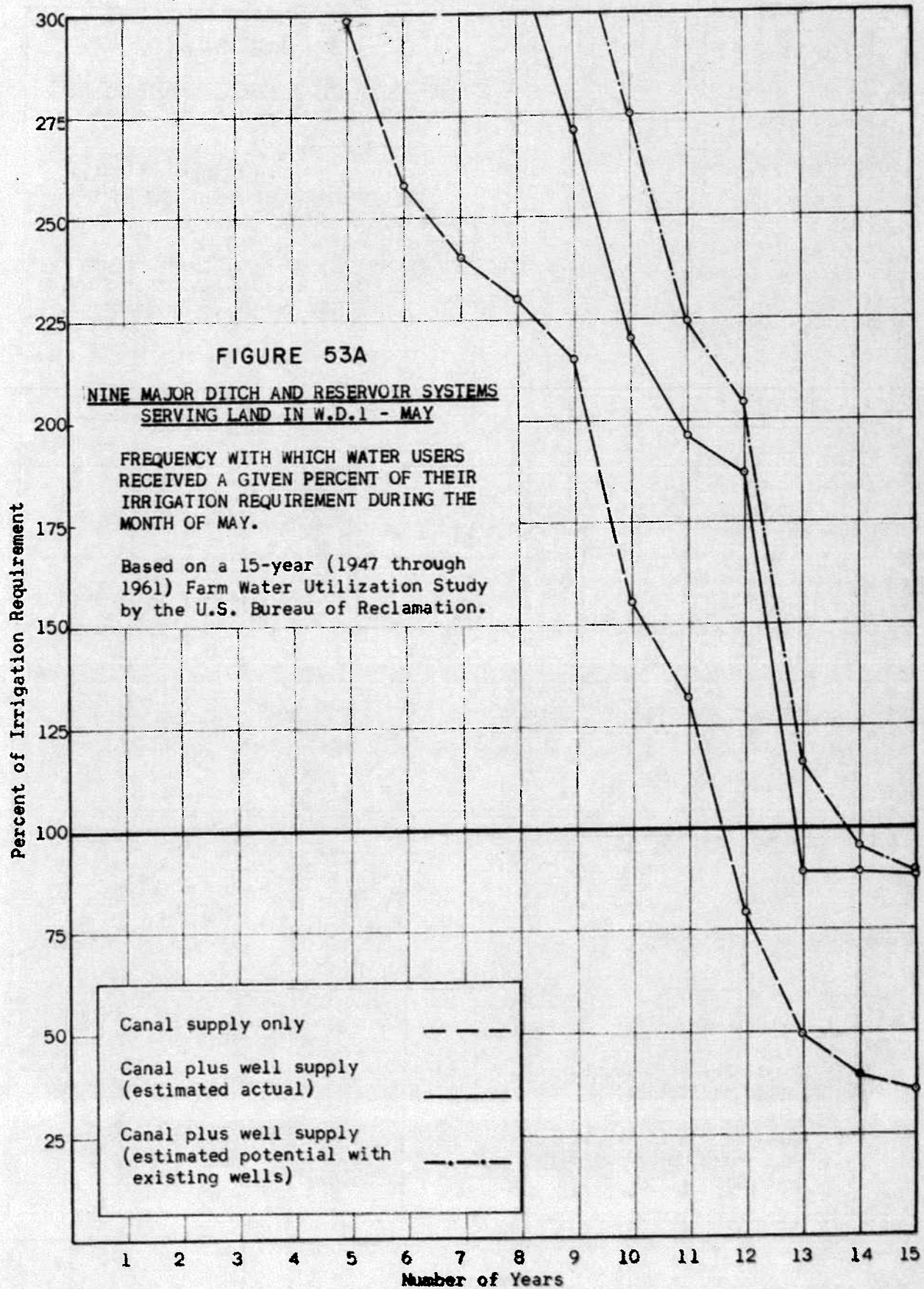


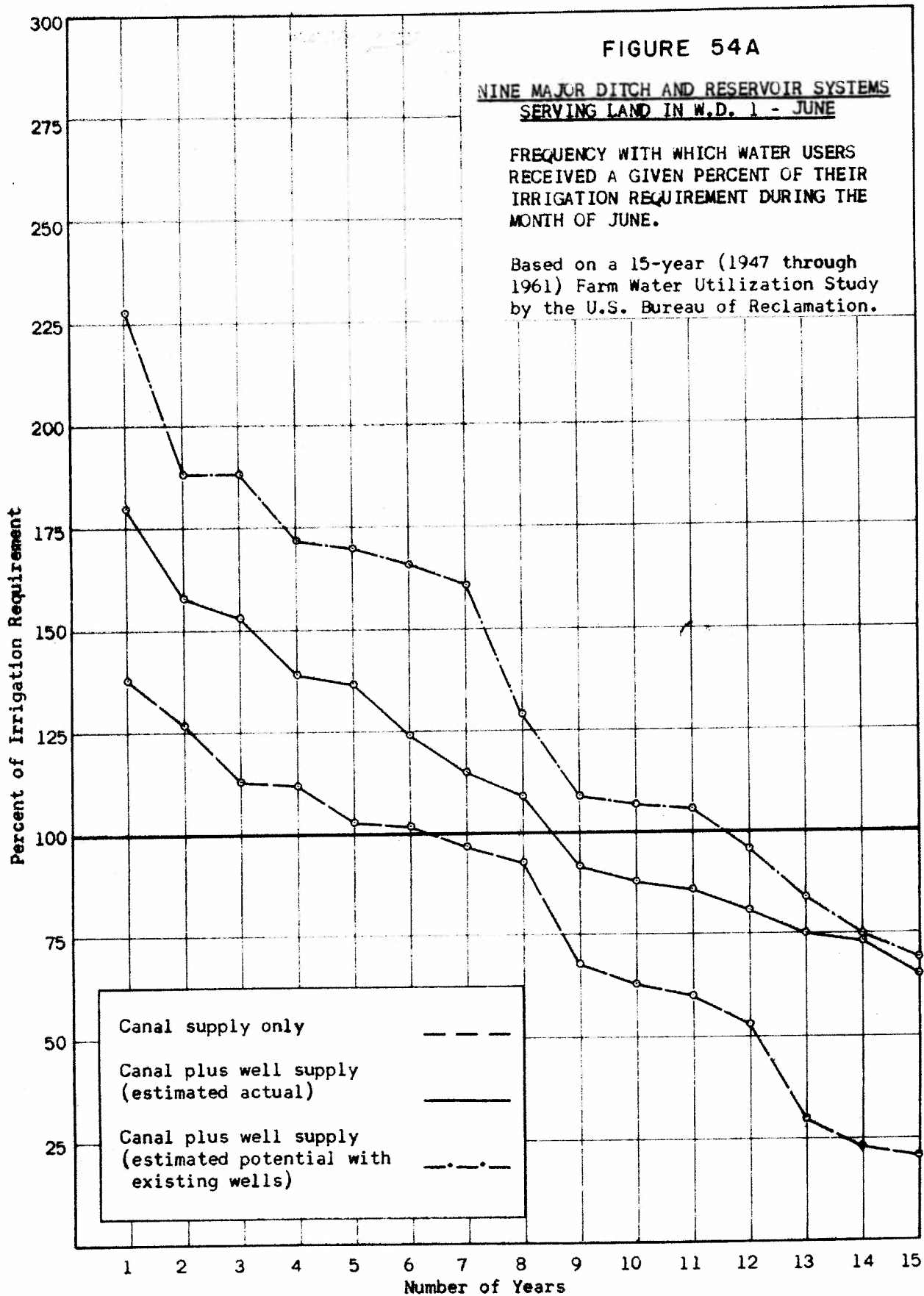




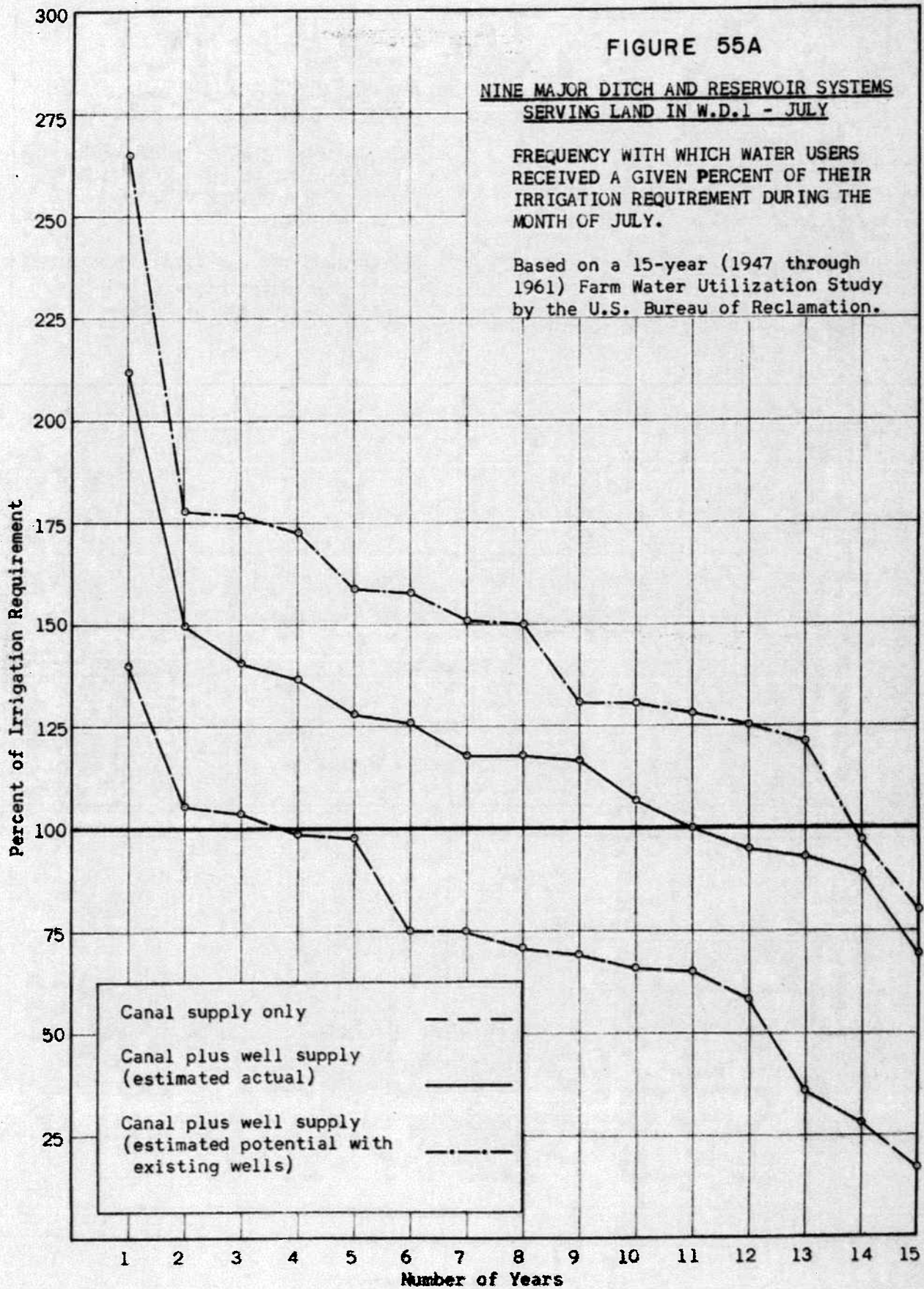












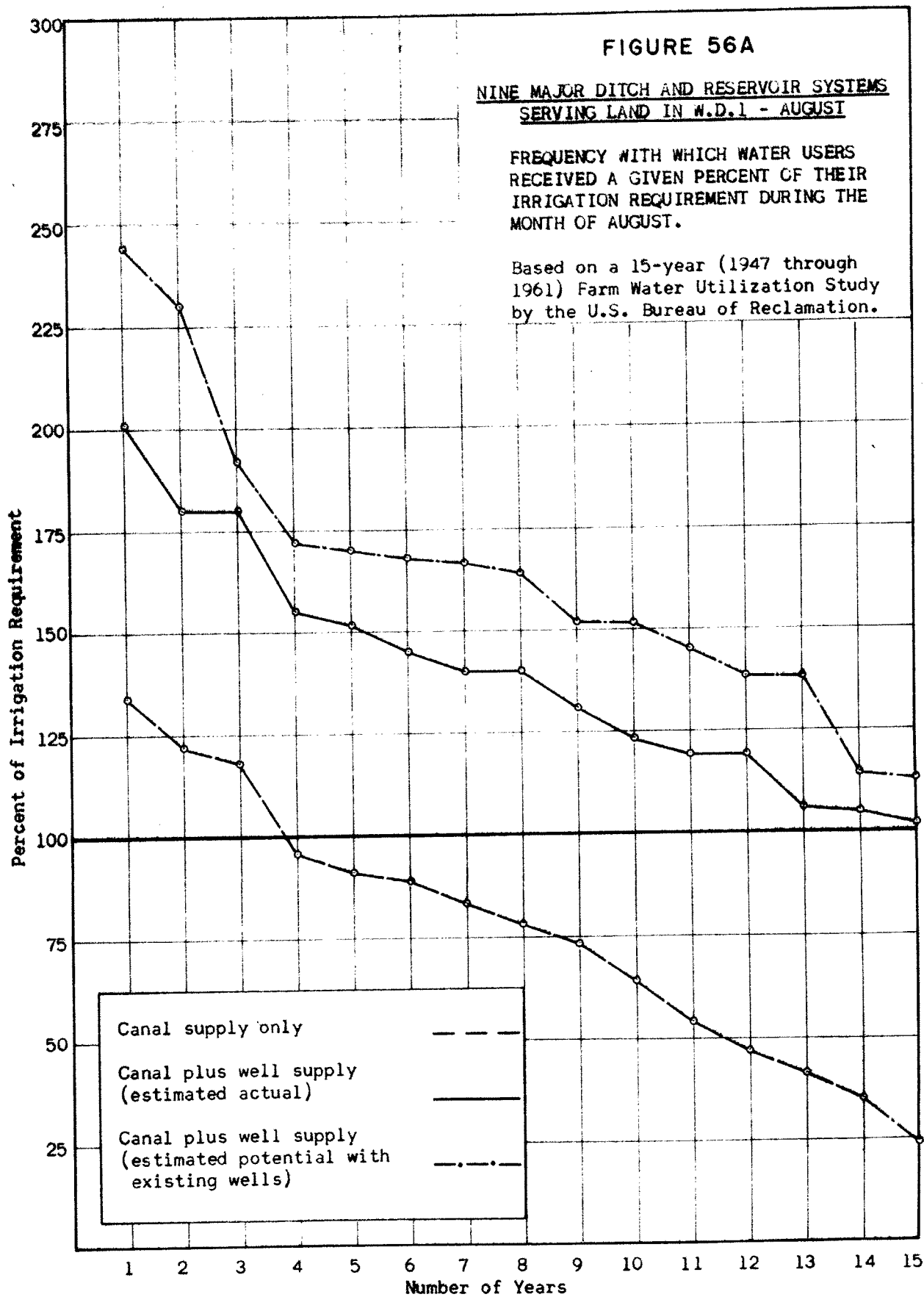


FIGURE 57A

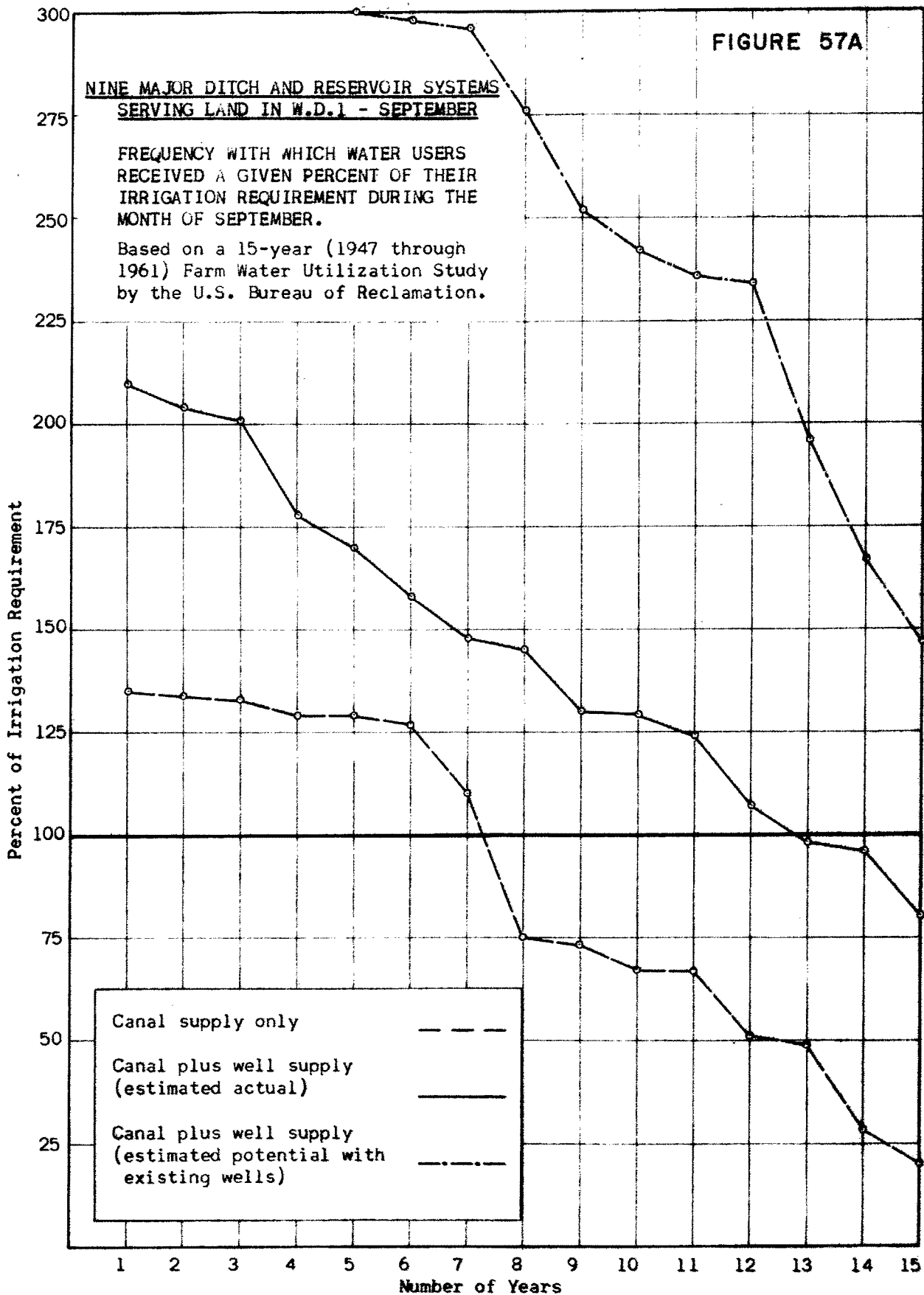
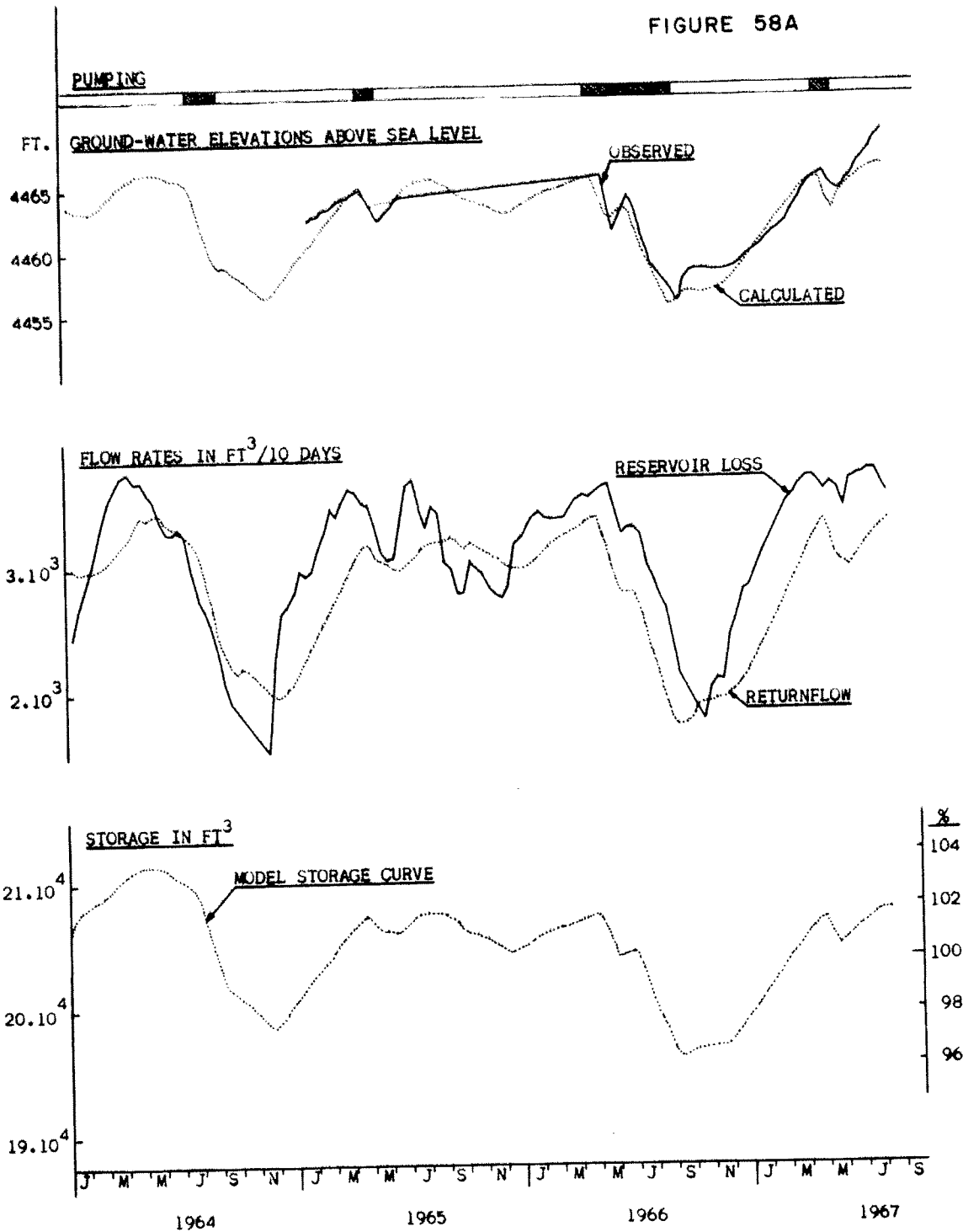


FIGURE 58A



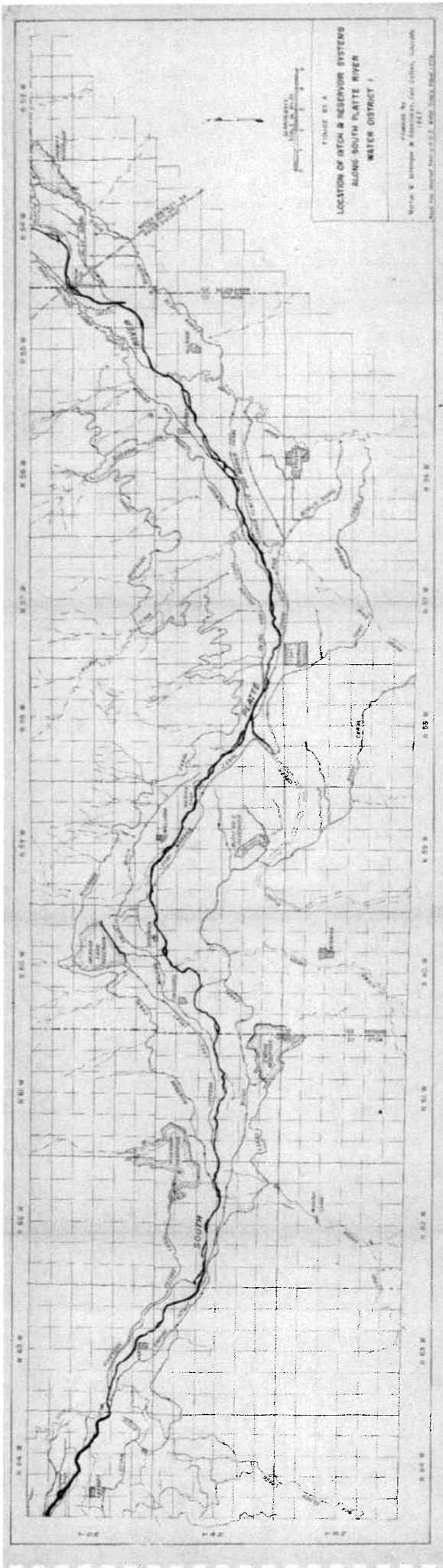
GRAPHICAL RESULTS OF MATHEMATICAL MODELING

OUTPUT FOR SIMULATED TIME 480 - 490  
 =====

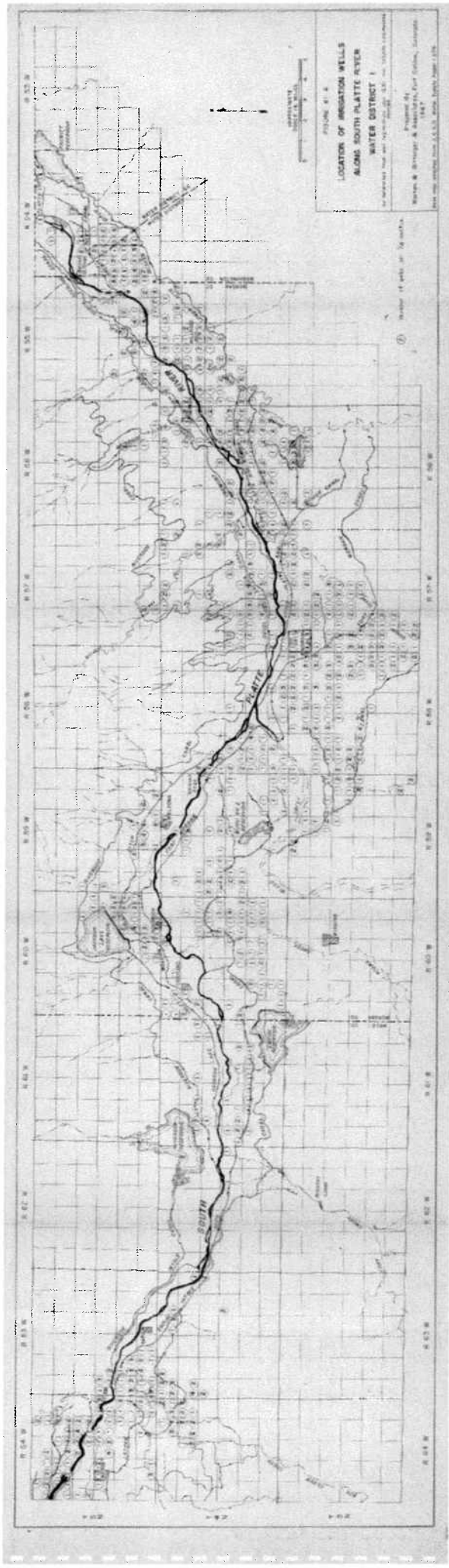
FIGURE 59A

APPLIED WATER	-944.83
NET INFLOW THROUGH BOUNDARIES AND RIVER	227.84
STORAGE AND DECREASE OF STORAGE	206220.70
TOTAL	2.04

GRID NO.	WATER TABLE FLEV.	BOUNDARY FLOWS	APPLIED WATER
1	4504.600	3310.0676	0.
2	4486.852	0.	.2760
3	4475.253	0.	.2760
4	4473.707	0.	.5520
5	4471.670	0.	.5520
6	4469.598	0.	.5520
7	4467.572	0.	.5520
8	4465.552	0.	.5520
9	4463.539	0.	.5520
10	4462.473	0.	-91.0905
11	4461.667	0.	.5520
12	4460.149	0.	.5520
13	4458.668	0.	.5520
14	4457.226	0.	.5520
15	4455.800	0.	.5520
16	4454.415	0.	.5520
17	4453.050	0.	.5520
18	4451.726	0.	.5520
19	4450.443	0.	.5520
20	4449.165	0.	.5520
21	4447.943	0.	.5520
22	4446.744	0.	.5520
23	4445.536	0.	-3.0480
24	4444.350	0.	-3.0480
25	4443.170	0.	-3.0480
26	4442.364	-3060.3318	-1.1430
27	4442.000	-1768.8113	0.
28	4442.211	0.	-1.1430
29	4442.752	0.	-3.8100
30	4443.581	0.	-3.8100
31	4444.405	0.	-3.8100
32	4445.215	0.	-3.8100
33	4446.021	0.	-3.8100
34	4446.814	0.	.6900
35	4447.670	0.	.6900
36	4448.610	0.	.6900
37	4449.672	0.	.6900
38	4450.888	0.	.6900
39	4452.231	0.	.6900
40	4453.639	0.	.6900
41	4455.116	0.	.6900
42	4456.702	0.	.6900
43	4458.373	0.	.6900
44	4459.293	0.	4.1595
45	4460.241	0.	.6900
46	4462.146	0.	.6900
47	4463.169	1746.9170	4.1595
48	4464.199	0.	0.









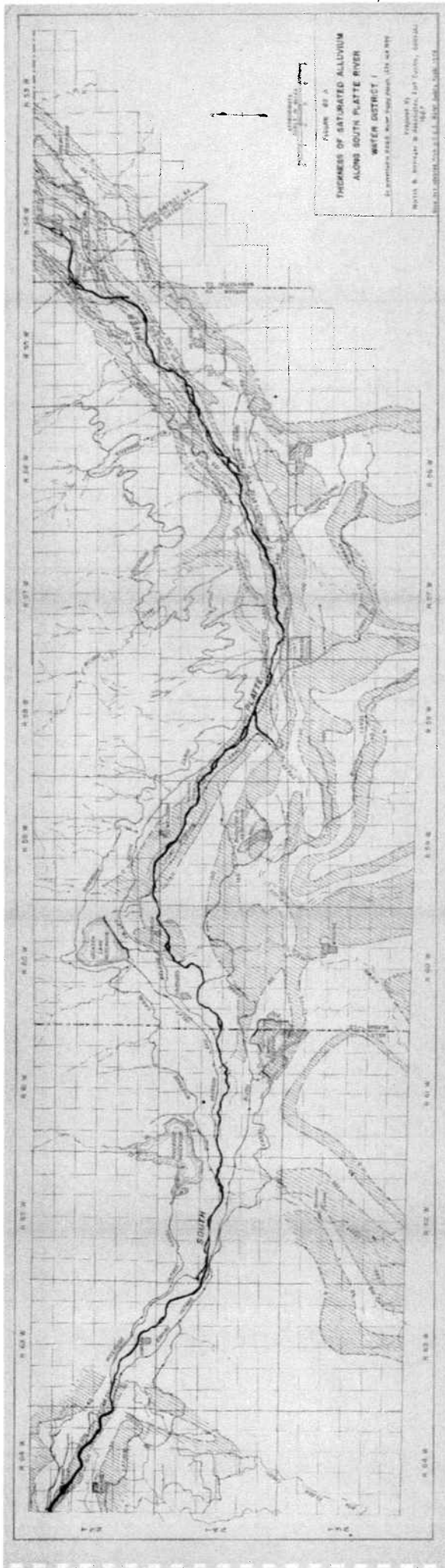


FIGURE 43 A  
 THICKNESS OF SATURATED ALLUVIUM  
 ALONG SOUTH PLATTE RIVER  
 WATER DISTRICT 1

Prepared by  
 GEORGE W. BENTLEY, JR.  
 U.S. GEOLOGICAL SURVEY  
 WATER RESOURCES DIVISION  
 NORTH PLATTE, NEBRASKA  
 1957