

T-1034.—INFLOW TO SALTON SEA, IMPERIAL IRRIGATION DISTRICT AND MEXICO, 1959-66

[In thousands of acre-feet]

Year	From Mexico at international boundary	From Imperial Irrigation District			Total, Imperial Irrigation District and Mexico
		Operational loss	Farm drainage	Total, Imperial Irrigation District	
1959.....	124	88	933	1,021	1,145
1960.....	123	86	973	1,060	1,183
1961.....	117	78	973	1,051	1,168
1962.....	134	70	1,019	1,089	1,223
1963.....	141	67	1,087	1,154	1,295
1964.....	107	36	869	905	1,012
1965.....	113	27	856	883	996
1966.....	104	28	977	1,005	1,109
8-year average.....	120	60	961	1,021	1,141

T-1035.—THEORETICAL DISTRIBUTION "IMPERIAL IRRIGATION DISTRICT CONTRIBUTION TO SALTON SEA," 1959-66

[In thousands of acre-feet]

	1959	1960	1961	1962	1963	1964	1965	1966	8-year average
Leaching requirement ¹	387	443	462	442	461	505	549	543	464
Operational loss.....	88	86	78	70	67	36	27	28	60
85-percent canal loss and regulation ²	476	491	462	417	410	317	297	330	400
50-percent water available for farm efficiency ³		30	57	115	100			56	45
Total theoretical ⁴	951	1,050	1,059	1,044	1,038	858	873	957	969
Observed to sea ⁵	1,021	1,060	1,051	1,089	1,154	905	883	1,005	1,021
Difference.....	-70	-10	+8	-45	-116	-47	-10	-48	-52

¹ Refer T-1033.² Based on 15-percent allowance for surface evaporation and consumptive use of vegetation along and adjacent to canal section in Imperial unit, refer T-1020, "Total canal loss and regulation."³ Estimated 50 percent of water available for farm losses after leaching requirement and crop consumptive use had been satisfied from amount of "deliveries to users"; refer T-1033.⁴ Does not include contribution from rainfall.⁵ Includes contribution from rainfall.

DIVERSION REQUIRED AT PILOT KNOB FOR IMPERIAL UNIT BASED ON BLANEY-CRIDDLE FORMULA AND 1964-1966 CROP PATTERN FOR HISTORIC PPM SALINITY CONCENTRATION OF IRRIGATION WATER

Double cropping, average 3 years—1964-66 (acres)

Acres in crops : 561,000.

Area irrigated for crops : 434,000.

Double cropped : 127,000 or 22.6% of 561,000 acres—Say 23%.

T-1036.—REQUIRED FOR DELIVERY TO FARMS

Input irrigation water at—	926 p.p.m. ¹ (percent)	Acre-feet per irrigated acre
Average consumptive use per irrigated acre, 1964-66 ²		4.26
Leaching Requirement ³	22	5.46
Farm Efficiency (leaching requirement).....	95	5.75
System regulation and system loss (historic 3-year average) ⁴	15	⁵ 6.76
Required for delivery at Pilot Knob per acre irrigated.....		6.8

¹ Average measured salinity, 1964-66.² Refer to T-1043.³ Based on leaching requirement for historic 3-year average salinity of irrigation water, refer T-1044.⁴ System loss includes seepage, transpiration, and evaporation losses, unmeasured deliveries to some 1,500 or more service pipes, deliveries to farm homes, and farms less than 2 acres.⁵ Round to 6.8 acre-feet.