

CHAPTER 6

POLICY OF ROYAL IRRIGATION DEPARTMENT

The Royal Irrigation Department is responsible for irrigation, flood control and water transportation. In using of discharged water from Dam for controlling acidity in the soil used for horticulture is a direct function of this department. The followings below are the classification of works controlled by this department.

CONTROL OF SALINE WATER

Before the completion of Chao Phraya Dam the intrusive saline water found at some points in Chao Phraya River up north of Ayudhya. The salinity of water in Chao Phraya River at Bangkok-Sonburi was very high especially in dry season. In B.E. 2506 the regulation of Chao Phraya Dam control the salinity of water at 0.1 mg/ at Memorial Bridge (the depth of 1.00 meter) by discharging 100-150 m³/sec. The outfall of the treated sewage by complete units of treatment plant will be at a point between the Memorial Bridge and Prakanong. It expected that the degree of treatment of waste water will satisfied the chemical composition and physical properties of fresh water in Chao Phraya River between these two points.

Table 9 & 10 are datas concerning the concentration of saline water controlled by Royal Irrigation Department. The figures tabulated in the table are the results of field observation of Chao Phraya Dam regulation since the beginning of the year of 2506 B.E. The datas in this year can be used

Table 0 CONCENTRATION OF SALINITY

@ 1 meter depth from the level

DATE	PRAKANONG Salinity ml/l	BANGKOK BRIDGE Salinity ml/l
Jan, 1, 1965	.054	.030
" 5 "	.055	.046
" 11 "	.062	.040
" 17 "	.108	.050
" 21 "	4.05	.116
" 24 "	3.375	.112
" 25 "	2.30	.118
" 28 "	4.2	.136
Feb, 2, 1965	4.2	.317
" 3 "	4.125	.317
" 8 "	3.3	.208
" 15 "	4.00	.300
" 18 "	4.00	.139
" 23 "	1.068	.067
" 27 "	1.8	.118

Source, ROYAL IRRIGATION DEPARTMENT

Table 10 CONCENTRATION OF SALINITY

at 1 meter depth from the level

DATE	PPAKANONG Salinity ml/l	BANGKOK BRIDGE Salinity ml/l
March, 2, 1968	1.8	.124
" 4 "	1.925	.115
" 8, "	.776	.095
" 10 "	.355	.045
" 12 "	.925	.108
" 14 "	2.00	.136
" 16 "	1.108	.111
" 18 "	2.25	.121
" 24 "	.176	.062
" 30 "	2.25	.133
April 2 1968	2.425	.127
" 6 "	.875	.095
" 10 "	2.525	.3
" 16 "	2.250	.139
" 20 "	1.008	.24
" 24 "	.825	.118
Source, ROYAL IRRIGATION DEPARTMENT		

for reference because the policy of this department will control the salinity in this range.

FLOOD CONTROL

Bangkok-Thonburi Metropolitan Area situated on an area elevation of average ground surface about 2.00 metres above M.S.L. Along both sides of the river bank will be flooded during flood season almost every year. Royal Irrigation Department has a junction to control the flood for the capital city by controlling the maximum of high water level in Chao Phraya River at the Memorial Bridge not more than + 1.70 metres above M.S.L. However the Chao Phraya Dam regulation can not satisfied this condition because of the discharge from Mae Nam Pasak, until Sirikit Dam at Tam Bol Phason, Utasadiit for Mae Nam Nan and a reservoir at Kang Koi for Mae Nam Pasak has been constructed. At that time it can be sure that no flood at Bangkok-Thonburi area and the maximum of high water level at Memorial Bridge will be 1.700 metres above M.S.L. These projects will be completed in the near future.

CROSSECTIONAL AREA OF CHAO PHRAYA RIVER

The treated sewage is desired to dump into the Chao Phraya River. It is a necessary to find out the crosssectional area of Chao Phraya River at treatment plant because the degree of treatment depends on the discharge of the water. Figure 12 shows the various locations of crosssectional areas of Chao Phraya River and crosssectional area of river at treatment plant are shown in Figure 14, 15.

Figure 13, LOCATION OF VARIOUS CROSS-SECTIONAL AREA OF CHAOPHRAYA RIVER

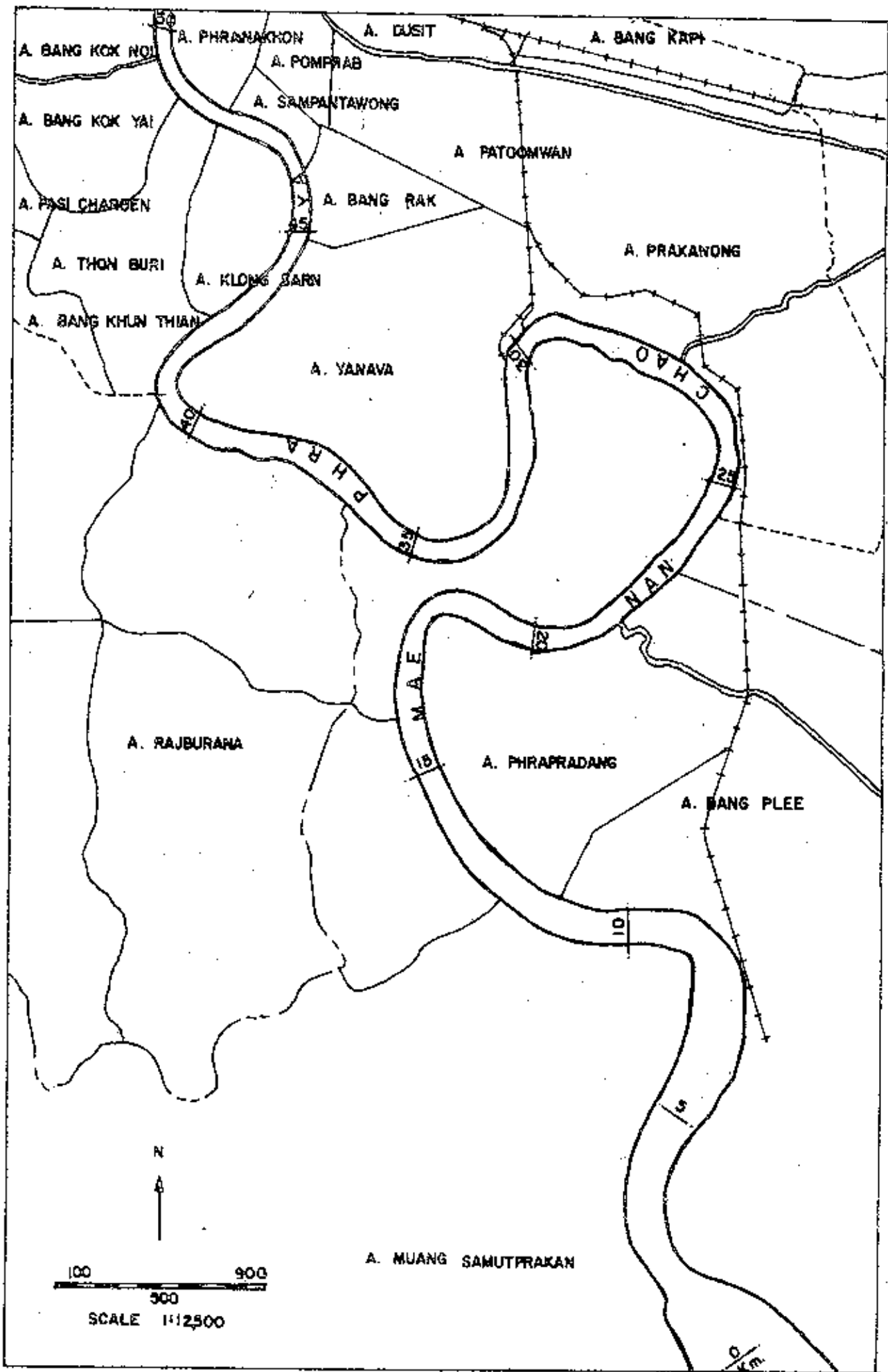
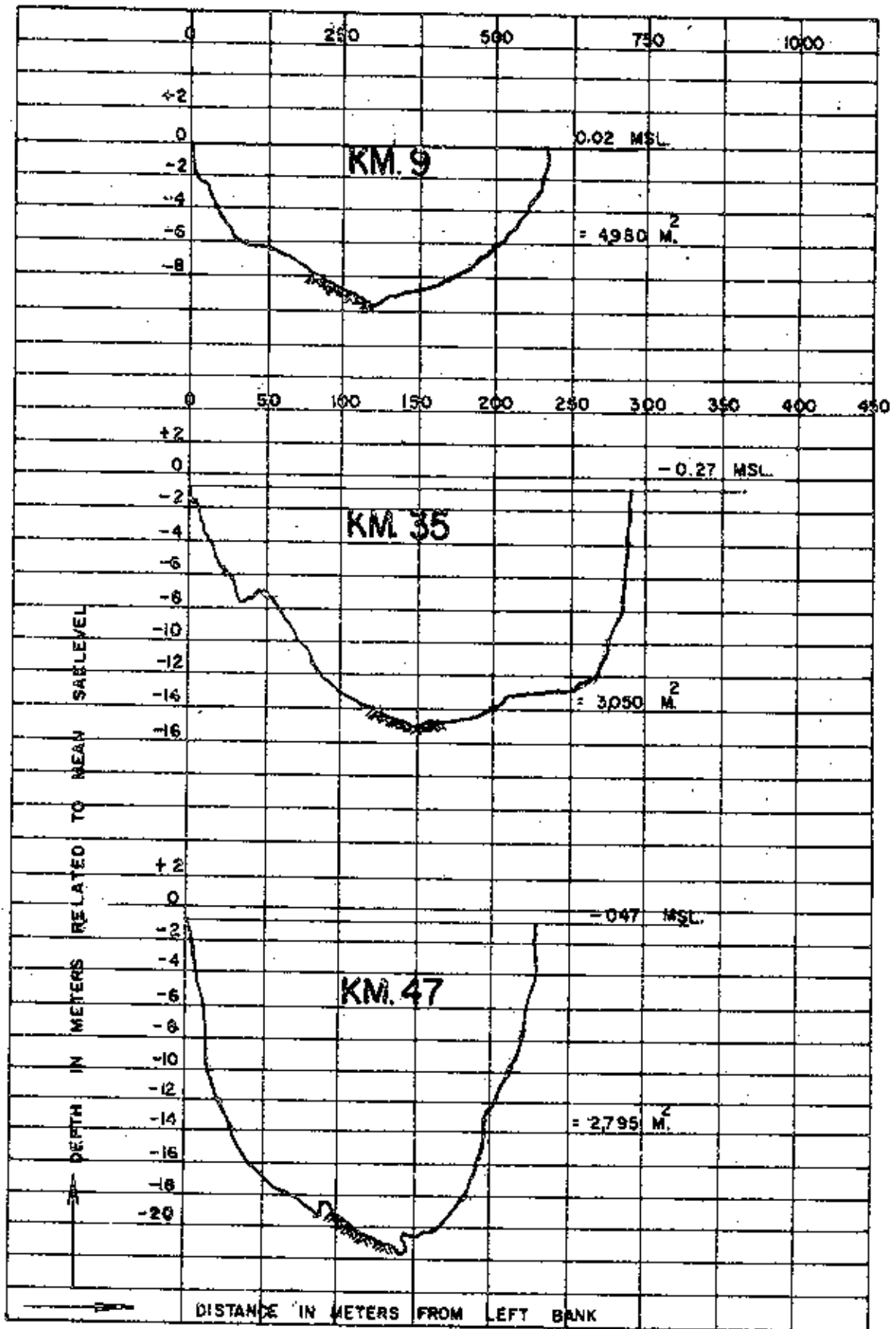
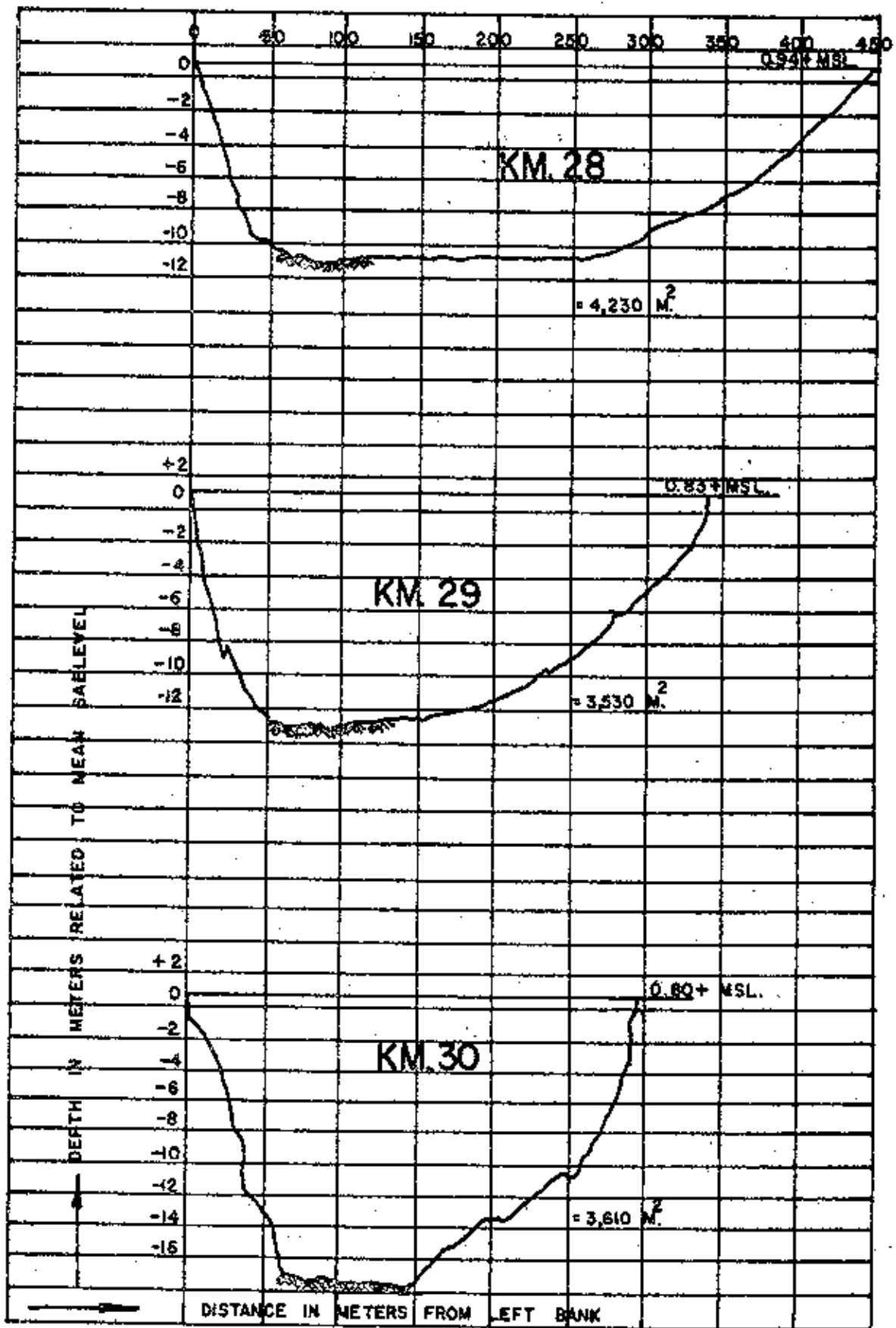


Figure 14, CROSSSECTIONAL AREA AT VARIOUS POINTS
OF CHAOPHRAYA RIVER



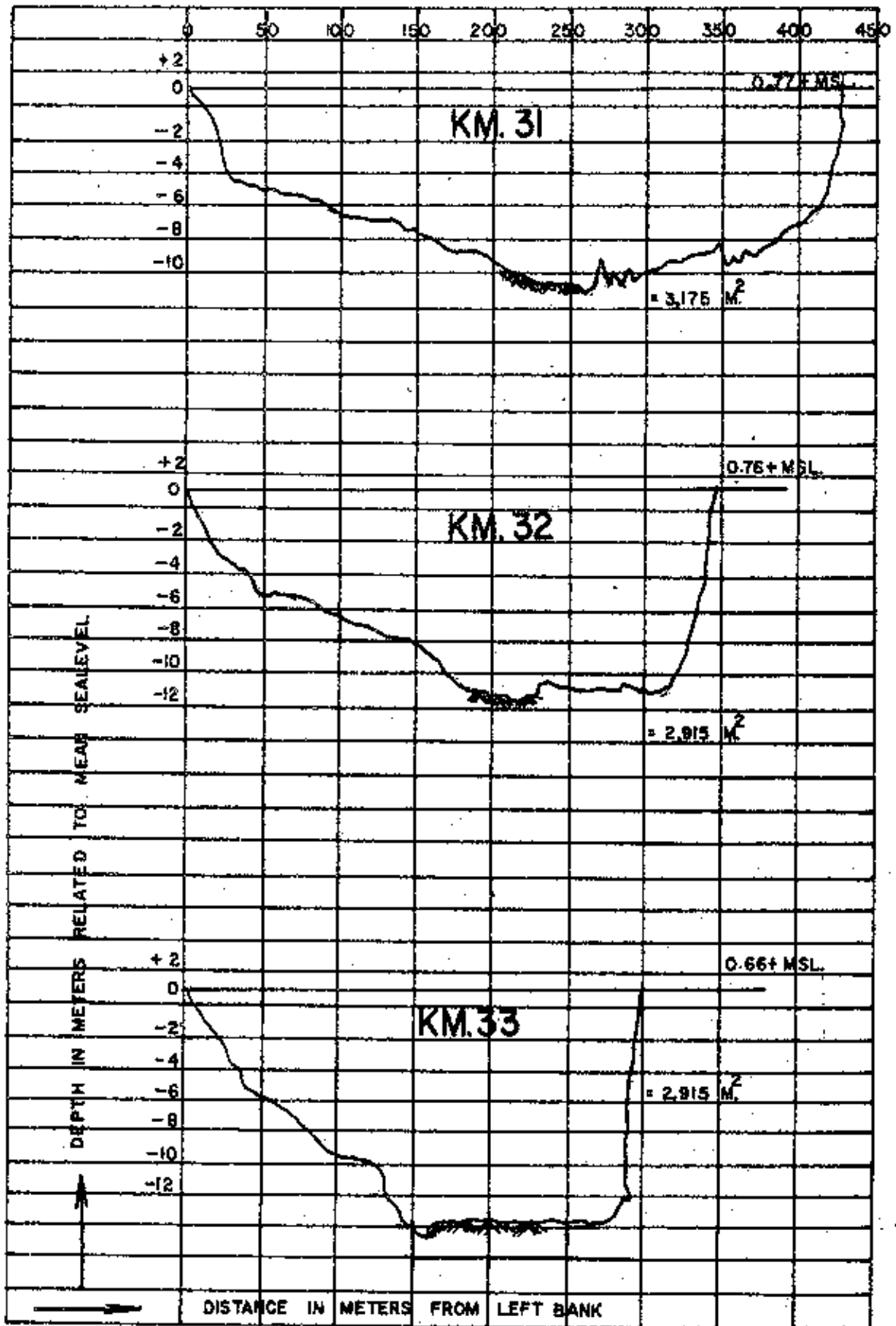
SOURCE: ROYAL IRRIGATION DEPARTMENT

Figure 15, CROSSSECTIONAL AREA AT VARIOUS POINTS
OF CHAOPHRAYA RIVER



Source: ROYAL IRRIGATION DEPARTMENT

Figure 16, CROSSSECTIONAL AREA AT VARIOUS POINTS
OF CHAOPHRAYA RIVER



Source : ROYAL IRRIGATION DEPARTMENT