

elevation 793. These serve the double purpose of providing a suitable ice run and additional discharging capacity to the whole layout. The sluices are so placed as to clear the forebay of ice and drift by tending to produce a current parallel to the line of the power station. It has been assumed that rock will be available for the foundation at elevation 775 under the easternmost sluice, and at 770

(1) **Initial Development.**—This consists of the seven 10,000-horse-power units next the dam. It will provide for the utilization of 12,000 second-feet at 46-foot head, with the turbines running at eight-tenth gate.

(2) **Intermediate Development.**—This consists of twelve 10,000-horse-power units, the additional five being adjacent to the initial installation. Twelve units will pro-

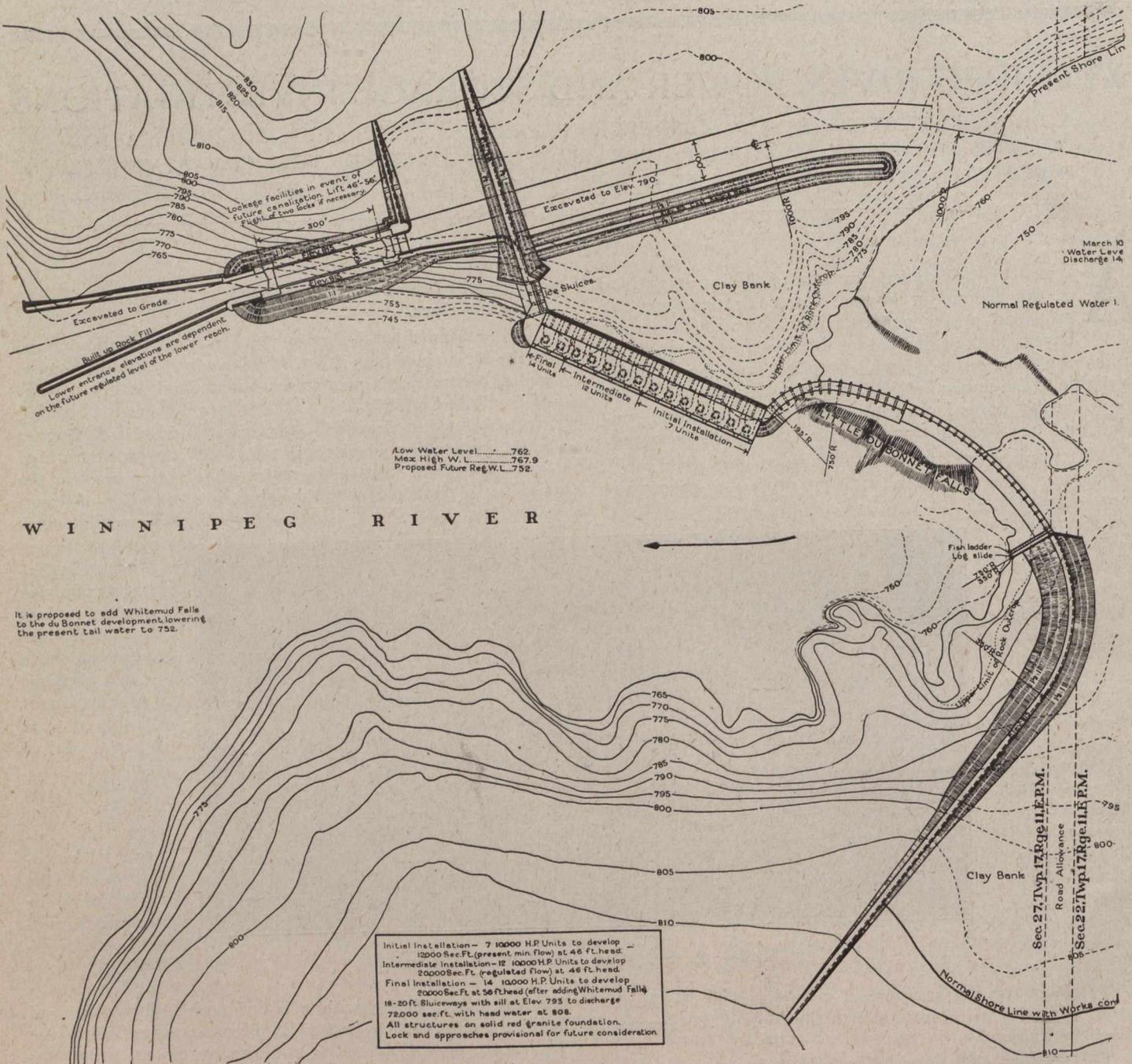


Fig. 1.

under the remaining two. It is exposed on the river bank at the latter elevation.

Power Station.—The power station (Fig. 2) has been designed for single runner vertical turbines of 10,000 horse-power at full gate. The section has been developed only in sufficient detail to enable a fairly accurate estimate being made of the quantities involved. This was mainly a question of the size of the water passages to carry the requisite supply at permissible velocity to and from the turbines.

vide for the utilization of 20,000 second-feet at a 46-foot head, with the turbines running at eight-tenth gate.

(3) **Final Development.**—This consists of fourteen units which will provide for the utilization of 20,000 second-feet at 56-foot head with turbines at eight-tenth gate.

Sluiceway Section of Dam.—Fifteen 20-foot sluiceways with sills at elevation 793, are immediately adjacent to the power station. The sluiceway deck, with its underside elevation at 813.5, will permit of a 5½-foot rise in