flood capacity is said to be in excess of any flood likely to occur after the Mill Lake dam has been rebuilt and other storage dams have been put in place.

The headworks intake leads to a reinforced concrete conduit, box section, 9½ by 10 ft., through which the water flows to the power house. The intake is being equipped with gates, racks, ice and debris outlet, etc., and is housed.

The turbines will be set in open concrete flumes and will be of standard horizontal type, equipped with Lombard oil

FIG. 7—VIEW ACROSS OLD POWER DAM, SHOWING HEADWATER AT RIGHT AND LOG CHUTE

pressure governors. The generator aisle will be used only for the three generators. The switchboard gallery is raised 21 ins. above the floor and projects into the generator aisle, so that the operator will have a clear view of all equipment. The exciters are adjacent to the switchboard gallery. An overhead travelling crane will serve the generators and hoisting gear will be arranged for the flumes and for the erection and adjustment of the turbines. The switchboard will consist of generator and exciter panels, feeder panels, series street lighting panels, etc., and will be equipped with an automatic voltage regulator. The power house and gate house will be of reinforced concrete.

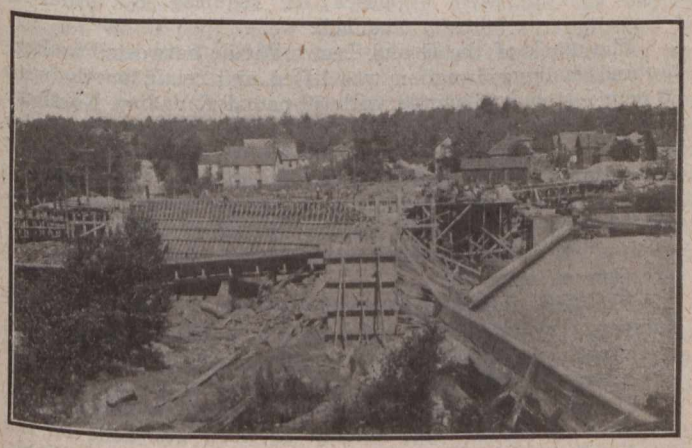

FIG. 8—NEW POWER DAM UNDER CONSTRUCTION

The Mill Lake dam will be replaced by a concrete dam of the same height, containing log chute, overflow weir, sluiceways and a submerged gate.

The road en route to Mill Lake will be flooded at one place as a result of the higher power dam, and this will require 6 ft. of fill for a length of 400 ft., and the construction of a culvert.

As can be seen from Fig. 1, there is at present an old highway bridge across the river just below the power dam. While the necessary new bridge could be carried on the power dam, that would entail considerable detour and steep grades. Bearing in mind proper town planning requirements, eliminating such detours and grades, it has been decided to build a new bridge, costing $15,500, below the present one.

Following are the costs as estimated by the consulting engineers, and it may be stated that all the contracts have been awarded within the estimates:—

Power dam, including sluice gates, etc., and cofferdams	$ 18,500
Head works, north wing wall, conduit, intake and water metering equipment	14,500
Generating station, flumes, gates and tailrace	32,800
Crane and hoist	2,500
Removal of flume, resetting log chute, etc.	750
Two turbines, one 1,050 h.p. for new generator, and one 650 h.p. for present generator, with governors, installed	19,200
Generator, 600 kw., installed	11,000
Resetting present generator and exciter	300
Motor generator exciter set	2,000
Switchboard, including rebuilding of present switchboard, wiring, etc.	6,750

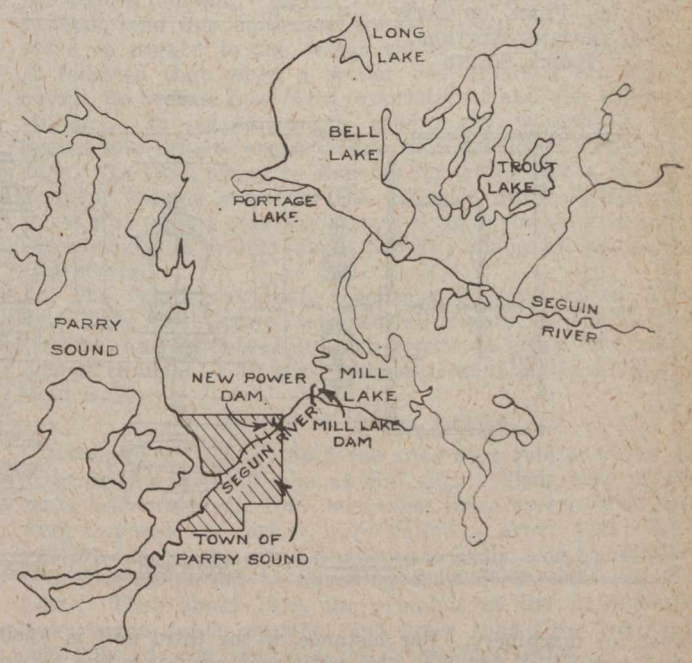

FIG. 9—MAP OF THE PARRY SOUND DISTRICT, SHOWING COURSE OF THE SEGUIN RIVER AND LOCATION OF NEW DEVELOPMENT

Voltage regulator	1,700
Mill Lake dam	6,500
Raising level of road and culvert	1,000
Allowance for contingencies	6,500
Engineering	7,000
Interest during construction	4,000
Land damages above power dam	15,000
Debenture issue	$150,000

(Six per cent. bonds sold at 101.75)

Annual Generating Charges

Following are the estimated annual charges:—

Annual charge on debenture issue	$ 11,250
Annual charge on balance outstanding ($30,000) on old debentures issued in connection with present power plant	2,225
Maintenance and repairs	3,000
Supplies, oils, etc.	500
Operation	3,600
Insurance	400
Annual generating plant charges	$ 20,975

With an output of 1,360 h.p. (neglecting the overload capacity) this would mean an annual power cost on the switchboard of $15.50 per h.p.