

RECORD SALMON PROJECT

The initial construction phase of the world's largest single Pacific salmon development project of its kind will get under way in Canada this winter to provide work for residents of the Qualicum area of Vancouver Island, British Columbia, it was announced recently by Fisheries Minister J. Angus MacLean.

The cost of the completed project is expected to exceed \$1 million. Mr. MacLean announced that the first phase, to begin shortly, would be the clearance of the right-of-way for a flood-channel at Hunts Creek on the Big Qualicum River, which would provide winter work for three months for about 12 to 15 men in the area.

The flood-channel is part of an ambitious and far-reaching programme to develop the Big Qualicum River for fisheries conservation purposes connected with the development of the multi-million dollar Pacific salmon stocks, which spawn in British Columbia inland waters.

IDEAL CONDITIONS

Basically the project will create a controlled-flow river system on the Big Qualicum, which will incorporate many features of the spawning channels at Jones and Robertson Creeks as well as some new ones. Department of Fisheries biologists and engineers have conducted a thorough study of the Big Qualicum system over the past three years. Their surveys indicate that the river provides ideal conditions for the new development.

The work about to begin at Hunts Creek forms only a minor part of the big task ahead. Major construction works will include a 20-foot earth-fill dam on the Big Qualicum River near the outlet of Horne Lake and, nearby, a horseshow tunnel 2,000 feet long and eight feet in diameter. The tunnel will by-pass the dam and permit control and regulation of water flows from three separate intakes at different elevations below the present lake level. The lowest of the intakes will be situated about 80 feet below the present normal level of the lake. Each intake will be controlled by separate gates permitting water to be taken from any or all of the three levels. This feature permits the maintenance of reasonably consistent temperature conditions in the river channel. The flow regulating facilities will be located at the downstream end of the tunnel.

HAZARDS REMOVED

It will be possible with the Horne Lake reservoir and the tunnel to provide close to optimum spawning and rearing conditions for salmon and trout from the standpoint of water flow and temperatures. The hazards to fish and fish eggs resulting from flood conditions, as well as those which occur under extremely dry conditions, will be eliminated.

SEA-LAMPREY PROGRAMME

Progress in the joint programme by Canada and the United States to eradicate the sea lamprey, which has played havoc with the Great Lakes fisheries, has been reported by the International Great Lakes Fishery Commission in a statement that the Fall River in Baraga County, Michigan, has been treated with lampreyicide.

The Fall River operation completes the initial series of chemical treatments of Lake Superior lamprey-producing streams in which many millions of larvae were destroyed. A total of 52 streams in the United States and 20 in Canada have been treated since 1958. Most of the treatments were carried out in 1959. Among the larger streams treated are the Tahquamenon and Ontonagon in the United States and Kaministikwia, Michipicoten, and Goulais in Canada. A small start was made this year in Georgian Bay, Lake Huron, where four streams were treated, and in Lake Michigan, where seven streams were disposed of. Treatments are carried out by staff of the Fisheries Research Board of Canada and the U.S. Bureau of Commercial Fisheries under contract with the Great Lakes Fishery Commission.

Positive evidence of a decline in the population of sea lamprey will come from the continued operation of electrical barriers on a number of Lake Superior streams. Numbers of spawning sea lamprey taken in 1961 may be somewhat reduced but a substantial decrease is not likely because most of those taken at the barriers will have come from stocks which moved to the lake in 1959, before their parent streams were treated. Therefore, the full effects of the chemical programme cannot be evident until the spawning run in 1962.

SECURITIES TRANSACTIONS

Canada imported \$7 million-worth of capital from all transactions in portfolio securities during the third quarter of 1960. This figure includes sales to non-residents of \$28 million-worth of new issues of Canadian stocks and bonds and of \$9 million-worth of outstanding Canadian stocks; but against these amounts Canadians repurchased outstanding Canadian bonds and debentures worth \$18 million and retired \$22 million-worth of foreign-held Canadian securities. All these transactions in Canadian securities resulted, therefore, in a small capital export of \$3 million, while there was a capital inflow of \$10 million from the net disposition by Canadians of foreign securities.

The net inflow in the three-month period was lower than for some quarters past. The amounts in the first and second quarters were \$208 million and \$93 million respectively. The reduction in the third quarter may be associated in part with lower demands in the