

the United States mainland to the head of Barnhart Island. The closure will be completed by powerhouses extending 3,500 feet from the foot of the island to the Canadian mainland, and by flanking dykes.

The new canals are to be 27 feet deep, with locks conforming to the general dimensions of those in the Welland Ship Canal. The canal past the control dam is to have one lock with a small drop of 5 feet or less. At the main dam the drop will be about 85 feet, and two locks are planned in this canal.

The second of the three sections is Soulanges. Here the basic power development already exists at Beauharnois and the power canal incorporates a 27-foot navigation channel. Little more is required than the provision of a short side canal with two twin locks in flight to pass vessels from the power canal to Lake St. Louis.

Thirdly, in the Lachine section, the minimum development will be for navigation alone. This would involve considerable channel enlargement and a ten-mile canal with two locks. But a large-scale power development is possible in this section too. Discussions have been opened with the Government of Quebec, out of which may come an agreement for a combined power and navigation development.

That covers the three sections of the St. Lawrence River where major works are required. Comparatively minor channel work is required in the two remaining sections, the Thousand Islands and Lake St. Francis, in order to achieve seaway standards for navigation.

Passing on to the Great Lakes and their connecting channels, the Welland Ship Canal is 27 feet deep for about 17 miles of its 28 mile length; it only remains to deepen the remaining parts to 27 feet. Then, above Lake Erie, the achievement of seaway standards would require considerable dredging in the St. Clair-Detroit passage into Lake Huron and in the St. Mary's River between Lake Huron and Lake Superior.

#### The All-Canadian Seaway

From the Canadian point of view it will be clear that the International Rapids Section of the St. Lawrence is the key to the whole 2,000 mile waterway. Below Cornwall the river is wholly within Canada and the necessary works will be Canada's responsibility in any event. Above Prescott and into the Great Lakes, Canada can deepen the Welland Canal but need do little else. But in the international part of the river we must have active participation from some entity in the United States, at least with respect to the power development.

The 1941 agreement (and also the 1932 treaty, for that matter) had provided that the two federal governments build all the works in the International Rapids Section, power as well as navigation; on completion the power facilities were to be disposed of to an appropriate agency in each country. When this agreement had failed to secure Congressional approval after ten years, Canada proposed in 1951 that Ontario and New York or some other entity in the United States be allowed to build the power works, and Canada undertook on