## STATEMENTS AND SPEECHES

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NO. 51/51 BOUNDARY WATERS AND WATERS CROSSING THE BOUNDARY BETWEEN CANADA AND THE UNITED STATES

Text of an address by General A.G.L. McNaughton, Chairman, Canadian Section, International Joint Commission, to the Empire Club of Canada, made in Toronto, on December 6, 1951.

Today I am very pleased indeed to have the opportunity to talk to you about our problems in relation to "Boundary Waters and Waters which Cross the Boundary". These problems are difficult, not only because of the technical considerations relating to the use of water but they are complex because they involve matters which are of concern both within Canada, between the Federal Authority and the particular province affected, and also externally in the conduct by the Federal Authority of our affairs with the United States.

Questions which are at issue in "Boundary Waters" come under the jurisdiction of the International Joint Commission and in dealing with certain of the more important of these questions which are, or have been, before the Commission, I propose to mention more specifically those which are of current interest to the people of this part of Canada by reason of the fact that they relate to the use of the waters of the rivers and lakes along our southern boundary from the Lake of the Woods which lies between Manitoba and Ontario, eastward through the Great Lakes and their connecting channels, and down the St. Lawrence River to Lake St. Francis where Ontario joins Quebec and thence continuing on down the national section of the St. Lawrence to the sea.

The questions under consideration in this vast region involve every aspect in the use of these waters for navigation, for the generation of power, for domestic and sanitary purposes; questions also arise concerning the conservation of these waters and of measures to prevent their pollution and in many of these matters, both along the boundary and in waters flowing out of boundary waters, the Commission is closely involved.

Along other portions of our boundary with the United States, the Commission is likewise deeply concerned with problems of the same character and also with other aspects of the use of water. On the border between Alberta and Montana, for example, the use of water for irrigation has for many years been a primary consideration, and one of the earliest tasks assigned to the Commission was the measurement and apportionment of the waters of the St. Mary and Milk Rivers, both of which rise in Montana and flow across the international boundary. The waters of the St. Mary flow into the

Saskatchewan and on into Hudson Bay; the Milk returns to Montana after passing eastward for 100 miles or so in Alberta and joins the Missouri, which is a principal tributary of the Mississippi.

The task of dividing the waters of the St. Mary and Milk Rivers assigned to the Commission by the Treaty of 1909 was in due course successfully accomplished in a manner deemed equitable, even though neither party at the time felt that they had been given everything to which they considered themselves entitled. The aspect of the matter of greatest importance was that an acceptable decision was in fact arrived at and that in consequence those who wished to proceed with the irrigation of the land could make the large investments which are necessary in the confidence that they would not be disturbed.

In the result, both in Alberta and Montana, in the area served by the waters of these rivers the sage brush and sparse grass of the arid prairies has given way to a rich and dependable agriculture. Great prosperous communities based on the use of water on the land have come into existence and these newly-created and widely diversified consequential interests continue to develop and to acquire permanent substance and stability.

Similar problems, but concerning other rivers of Montana and Alberta, are now again before the Commission for consideration and report to the two Governments.

Between British Columbia and the States of Washington, Idaho, and, in part, Montana also, the problem presented to the Commission vary again. Here the first need is for the control for flood protection of the waters which come down in sudden spate from the glaciers and snow-clad slopes of the Rockies under the effect of the strengthening sun of spring and early summer. Here too the use of water for power has become of very great significance and particularly so the conservation of flood waters and its storage to even out production during the low water periods of late summer and winter. The possibilities of storage are so great that it will even be possible in some watersheds to regulate the flow over a period of years, thus eliminating the effect of dry years in a cycle.

The questions at issue in international boundary waters between Ontario and the adjoining states to the south involve primarily both questions of navigation and of power and these questions extend their interest also to Quebec in the National Section of the St.

Lawrence. Irrigation in these parts has not developed into a question of any great significance although flood control and the use of water for domestic and sanitary purposes continue to present problems, some of which are of considerable complexity because the vagaries of the currents in the rivers and channels gives rise to a danger that pollution of boundary waters arising in one country will affect the waters of the other country also.

As regards navigation - along the rivers and through the lakes of the St. Lawrence Basin - there have already been created and there are now in existence and continued use very extensive systems of canals and locks and dredged channels. These facilities, in their day, were fully adequate for the passage of the then existing

traffic and commerce of the two nations, but now, with the march of time and the progress of invention and the growth of our economy, these facilities have become out-moded and they are no longer adequate to carry the ships which it is desired to move through them in the service of our expanding industry even in peace; and certainly these navigational facilities have been proved, by the most careful analysis, not to have the capacity to measure up to the requirements which are necessary for defence in the very anxious times and uncertain conditions through which we pass. Similarly, as regards power, there have been substantial developments. At the rapids and falls on both the Canadian and United States sides of the great waterways of the St. Lawrence system there have been created hydro-electric plants for the generation of power; these represent a very great continuing value, particularly on the Canadian side where the developments are being pressed forward in Quebec and continue to be pressed in the International Section by the Hydro-Electric Power Commission of Ontario to the very limit of what is permitted by international agreement. Nevertheless, as matters stand, not more than perhaps a third of the power potentially available from the falling waters on the St. Lawrence including the Canadian Section is being used. Some of these developments we can make ourselves at our own convenience, but in most cases international considerations are involved, and so, in respect to navigation and in respect also to power, there are projects of immense importance which need to be freed from the existing international inhibitions so that they can be undertaken at the earliest practicable date and carried out for the benefit and welfare of the peoples both of Canada and of the United States.

So also, in such matters as the stoppage of the pollution of these waters by sewage and by the discharge of the wastes of chemical and other industries, in the conservation of their scenic beauty and in their use for recreational purposes, there are many problems of great concern both to Canada and to the United States that call urgently for solution.

In the considerations that must be taken into account in working forward to the solution of these many and varied and complex problems so that benefit and satisfaction may come to the people of Canada - and more especially to the people who live in the region -, we are never at liberty to forget that there is always another group of people, usually more numerous than ourselves, who have a like interest and equal right with us in the outcome. In fact, no solution for any major question arising in the use of boundary waters is possible except by agreement which respects the rights and interests of our neighbours; and certainly we have learned by long experience, which on occasion has been very painful, that progress with these matters only becomes possible when the views currently held on either side of the boundary and the wishes of the two peoples have come into full accord and have found expression in a unified purpose preferably by Parliament and Congress.

Whether this takes the technical form of a treaty or of an agreement duly ratified or merely of an understanding, informal or otherwise, by which the matter may proceed without objection by either side, does not seem to matter very much, because once great works have been created in agreement, however arrived at, we

can be quite certain, as a result of our long and friendly association, that no one in either country will interfere in their use to the detriment of the other party.

However, where new projects of great magnitude are under arrangement, and particularly in the case of those in which some outmoded facility or vested interest has to be displaced, it is seldom easy, even in one country, to effect progress, but where, as in the regions along the St. Lawrence, the resources to be developed are shared by separate communities, the difficulties presented to the inhabitants on either side in coming together and making effective arrangements for the development of their joint interests are almost insuperable if they have to proceed separately through the ordinary national, economic, legal and legislative systems of their respective countries.

At the turn of the century, with the invention of the electric generator, which could be set in motion by the power of falling water, and with the evolution of the means of transmitting electric power over considerable distances, those limitations became particularly apparent to the leaders of the two nations which share the St. Lawrence, where immense resources had thereby become potentially available to be turned to useful account. Under the stimulus of this interest and necessity a system was in fact evolved through which the difficulties of separate and distinct communities in working together could be overcome. This system is set forth in the Treaty of 1909, usually referred to as the Boundary Waters Treaty; but its usefulness is by no means confined to questions concerning the use of waters.

The fundamental conception of this treaty is both to dispel trouble arising or threatening to arise between the two countries or their peoples and also to provide a means through which their joint aspirations, particularly as regards the useful development of the vast resources of their boundary waters can be fulfilled. The methods adopted are, in many instances, quite novel in character, and nowhere else, between any other two countries, have they ever been brought into effective use, either before or since.

The Treaty of 1909 established the International Joint Commission, a body composed of six Commissioners, three on the part of the United States and a like number on the part of Canada. The members on either side are equal, so that, if the Commission is to proceed at all in the matters which have been referred to it, it must proceed by agreement and this principle has also been followed by the Commission itself in the establishment of the many international engineering boards and committees which it has had occasion to set up to assist it in the discharge of its duties during the 40 years which it has been in existence. In order to discharge these responsibilities effectively, the Commission has been armed with authority which, in certain precisely defined spheres, has been placed above that of national law.

For example, unless there has first been a special agreement between the Governments of Canada and the United States, "no further or other use or obstructions or diversions, whether temporary or permanent of boundary

waters on either side of the line. . . shall be made except by the authority of the United States and. . . Canada within their respective jurisdictions and with the approval of the International Joint Commission."

By these provisions the power to initiate plans for the deepening of channels, the construction of breakwaters, the improvement of harbours, and the like, is left to the respective Governments on their own sides of the line, provided that the results "do not materially affect the level or flow... at the other..." in which case the plans must be submitted to the Commission for "approval".

Article IX of the Treaty of 1909 provides that "any question. . . involving the rights, obligations or interests of either in relation to the other. . . along the common frontier shall be referred. . . to the International Joint Commission for examination and report, whenever either. . . the United States or . . . Canada shall request. . ."

It was pursuant to these provisions that, in January 1920, the question of the further improvement of the St. Lawrence River between Montreal and Lake Ontario for navigation and power was referred to the Commission for examination and report; to assist in the consideration of the engineering aspects of the matter, a board of engineers with a representative from each country was set up to report to the Commission.

The Commission and the engineering board gave careful study to the matters which had been entrusted to them and, after the conduct of a most comprehensive series of public hearings in both countries, so that "all parties interested therein" should "be given convenient opportunity to be heard. . .", the Commission reported recommending the project and put forward the principles which should govern the evolution of the final engineering plans, the allocation of costs as between navigation and power, and the incidence of these costs as between the two countries. The Commission recommended that the Governments of the United States and Canada should enter into a treaty for a scheme of improvement of the St. Lawrence River between Montreal and Lake Ontario accordingly.

This report was rendered in December 1921 and since then, that is for 30 years, the matter has been before both Governments in an endeavour to negotiate and obtain approval for the treaty or agreement recommended by the International Joint Commission.

Up to 1928 there was little disposition in Canada to proceed because it was felt that we were perhaps still overburdened financially as a result of World War I. However, from then on the situation changed and ever since the project has had the full support of Canada. Forceful statements to this effect have been made repeatedly by the Prime Minister and other Ministers, which have made it clear that our country continues to stand ready to go on with the St. Lawrence project for navigation and power on the basis of the agreement to share the costs negotiated in 1941 whenever the United States will be willing to proceed.

This procedure is preferred not because Canada might have any difficulty in financing the work which

would not be the case, but for the reason that any new agreement might involve lengthy discussion which it is desired to avoid because it has now become most urgent that an early start be made on construction.

This need for early action applies not only to the works contemplated on both sides in the International Section of the river for power for which there have long been unsatisfied markets in each country for their respective shares; the need applies also for early action on the construction of the navigation facilities which recent estimates show will be used, well up to capacity, as soon as they are made available and because their absence has become a serious disadvantage to the trade and commerce of Canada.

Mr. Howe has pointed out that, now that the principal of tolls to cover the operating, maintenance and amortization costs of the navigation facilities has been accepted by both countries, it makes very little difference whether the capital costs are shared at the start or written off from revenue later. He has proposed therefore that subject to arrangements being accepted for New York and Ontario to handle themselves the profitable developments for power on their respective sides of the boundary, the Federal Government of Canada would agree to construct all the works required for navigation not only in the National Section of the river in Quebec but also in the International Sections above Cornwall and St. Regis. To this end it is proposed that the navigation canal locks placed on the New York side in the earlier plans should now be built on the Ontario side where it is said they will give a somewhat greater traffic capacity but at some additional cost.

As you well know, an agreement covering the power aspects of this alternative to United States participation to the Seaway part of the project was signed in Ottawa on Monday last by representatives of the Federal Government of Canada and the Government of Ontario.

Similarly to the support consistently given by the Government of Canada to the development of the St. Lawrence for navigation and power also in the United States, each President in turn, from President Harding through Presidents Coolidge, Hoover, and Roosevelt to President Truman, has endorsed the project and sought the approval of Congress in one form or another for its execution. This favourable attitude by the Government of the United States continues at this time, when the matter is again being most strongly urged by the members of Mr. Truman's Cabinet that the project should be pressed by reason of the great urgency of providing improved navigation, particularly for the carrying of iron ore and also by reason of the urgent need for more hydro-electric power. The representations which have been made to the Congress of the United States favour the combined project for navigation and power as conferring the most far-reaching benefits to the peacetime economy of the two countries; they make clear also that the early completion of the works for navigation and power is a vital matter in relation to the defence of the North American continent in this period of deep anxiety and great concern.

In addition to the favourable report and recommendation given by the International Joint Commission, the project for the combined development of the St. Lawrence for navigation and power has been repeatedly before a

succession of National Advisory Committees and the like both in Canada and the United States. In every case the project has been endorsed.

It has also received the attention of a series of joint engineering boards, where the design of the works required has been developed in great detail and to the point that there is no longer any significant question outstanding between the technical representatives of the two countries.

The project as it stands has recently been most completely described by Mr. Chevrier, the Minister of Transport, in a series of addresses to the public in Canada; but because of its far-reaching special importance to the members of this audience and to the City of Toronto, I venture to recall to your minds the salient features:

From the Atlantic through the Gulf of the St.

Lawrence and up that river to a point near the city of

Quebec the greatest ships which ply the oceans of the world

have always had open passage during the season of

navigation. And from the earliest times the successive

governments of Lower and Upper Canada and more particularly

the Federal Government of Canada, since it was established

at Confederation, have made it their business to extend

and improve these facilities of navigation for ocean

shipping. Today the "St. Lawrence Ship Channel" provides

safe passage to the harbour of Montreal with a minimum

available depth of 32.5 feet at extreme low water and

every care is being exercised to ensure that developments

continue as may be shown to be desirable by progress in

the art and science of inland navigation. In matters of

channel width alignment, freedom from obstructions,

lighting, radio aids, harbours, wharfage, storage, loading

repair establishments and in the many other detailed

requirements needed for, or to facilitate modern

navigation, there is no other waterway in the world which

is better provided.

In my description of the St. Lawrence Waterway I pass next to its upper end at Lake Superior, where through Fort William, Port Arthur, Duluth and other great ports there passes a vast tonnage of commodities. The iron ore of Minnesota continues, despite the near exhaustion of the higher grades under the tremendous demand of two world wars and, increasingly, ore of premium quality flows in from the iron ranges in Canada to the west and north - the wood products of the adjacent regions and the grain from the Prairies add their quota in amounts measured in the millions of tons. The traffic which each year passes in and out of Lake Superior through the five locks of the St. Mary's River, which have been built, side by side and in parallel, to accommodate it, represents an amount which exceeds the total combined annual traffic of the Panama, the Suez, the Manchester and the Kiel canals all put together.

This immense traffic is now mostly carried from Lake Superior to Lake Huron, Lake Michigan and thence to Lake Erie through Lake St. Clair and the Detroit River in vessels of a type peculiar to the Great Lakes, which have a draft of about 22 feet. These special types of vessels have proved most efficient for lake transport and in cost per ton-mile of bulk freight they are far more economical than any ocean-going craft.

It has been evident that, with the opening of the Great Lakes to the sea, as ultimate increase in usable channel depth to 27 feet would be needed, and already channels of 25 feet for down-bound and of 21 feet or better for up-bound traffic have been made available by consistent action, principally by the United States, over a long period during which upwards of 55 million dollars has been spent on this project. This amount includes the cost of construction of the new lock on the United States side at Sault Ste. Marie which is capable of taking the largest ships passing our new Welland Canal between Lake Erie and Lake Ontario.

Thus there comes into existence on the Great Lakes system from Lake Superior to Lake Ontario inclusive facilities for navigation on a basis of 27 feet depth. All locks required have already been built with 30 feet or more on the sills and so it is only a matter of simple dredging to increase the depth of the connecting channels as this may become desirable in the future.

From the sea upwards to Montreal, as I have already mentioned, there is in existence a channel of 32.5 feet depth or more and this channel presents no limitation whatsoever to any ocean ships which we might reasonably expect would wish to use it. Moreover the same steady persistence in the pursuit of the fulfilment of the over-all plan is evident in this section of the river and on up to Beauharnois, where, for example, in connection with the development of power, the channels for a usable depth of 27 feet required for navigation have been substantially completed; all that remains to be done at Beauharnois to carry navigation past the rapids at that point is to finish the excavation and build the locks and approaches which have been designed to fit right in with the existing structures.

No deep water construction has yet been carried out at Lachine but here the plans have been developed and it has been shown that the project is practicable either for navigation alone or for navigation and power jointly, which would give an even better navigation link. Thus at its ends and throughout most of its length the project of a deep waterway is already a reality or is steadily becoming so.

I now turn to the short section from St. Regis opposite Cornwall, where the middle of the river becomes the international boundary, to Prescott to which deep water extends some 67 miles down river from Lake Ontario. This is the international part of the project between Montreal and Lake Ontario, which is the subject of the recommendation for construction made by the International Joint Commission to the Governments of Canada and the United States and since repeated many times by other competent bodies.

Between Montreal and Prescott the presently existing facility for navigation is the system of 14 feet canals built by Canada many years ago to overcome the difference of level between Montreal at 20 feet and Lake Ontario at about 240 feet.

This 14 foot canal has a total of 21 locks with ruling dimensions of 240 feet length and 45 feet width

as compared with the ruling dimension of 30 feet depth, 800 feet length and 80 feet width which will exist eventually on the Upper Lakes and the somewhat greater minimum depth which is now available from Montreal to the sea.

This short section of the St. Lawrence River is only passable by small ships of the 2,000 ton class and thus presents a barrier to the commerce and trade of the basin which either prevents its development or at least requires the expensive and time-consuming process of trans-shipment once, and sometimes twice, thus creating a burden which has long been felt to be intolerable, more particularly as the effort needed to overcome it cannot be regarded with present day facilities for construction, as anything which is really of any very great magnitude.

The latest estimates of costs under the 1941 agreement between the United States and Canada for new works give the total cost as \$704 million; Canada's share is given as \$220 million, principally to provide the navigation facilities in the Lachine section. The total to be spent by the United States is put as \$484 million, which it is said would substantially equalize the costs incurred, or to be incurred, by the two countries in this undertaking of mutual advantage to provide a seaway up the St. Lawrence and into Lake Superior at the head of the Great Lakes. For these capital expenditures we would obtain the full benefit of 27 feet depth for navigation from Montreal to Lake Ontario, thus eliminating the troublesome and very expensive and timeconsuming bottle necks which now hamper existing traffic, and which would be particularly disadvantageous in the inward movement of iron ore, which is about to become very important in our defence arrangements. These expenditures also include the funds required to deepen the Welland Ship Canal and the channels from Lake Erie through to Lake Superior to provide for 27 foot navigation.

In addition to thus freeing navigation, the expenditures I have mentioned would provide for the construction of the dams and the complete installation of turbines, generators, and power house equipment to develop 1.1 million horsepower on the United States side and a somewhat larger amount on the Canadian side at the Long Sault Rapids on the International Section of the river. As I have indicated, the unit cost for power to be derived from these installations is very low, probably about half of what the equivalent cost would be for steam plants, assuming steam plants of this capacity could be built at this time and kept supplied with fuel.

In the evidence which has been presented during the last year before the United States Congress and elsewhere, it has been made clear that the United States half-share of the power to be developed in the International Section would only represent about the annual increment of load in the area to be served. As regards the Ontario share, we know from the statements made by Mr. Saunders, Chairman of the OHEPC, that it could be absorbed more quickly than it could be produced, even having regard to the large increment which will be available from Niagara.

As for navigation - recent studies indicate that the savings on traffic will far exceed costs including those for full amortisation of the navigation facilities with consequent large benefits to be divided between producers and consumers to the great advantage of trade and commerce after all the costs have been recovered in the form of tolls. And lest anyone should think that the suggestion of this matter as a business venture is fanciful because of its magnitude, I would remind you that the total cost for navigation and power to be incurred over a period of six years (or perhaps a year less) does not amount to half as much as some of the larger corporations doing business in steel or in electrical apparatus for example are individually accustomed to spend in a single year.

The total direct on site employment to be given to labour on the project in Canada and the United States is now estimated at about say, 75,000 man years or say, as an outside figure, an average of 15,000 men employed for five years. This total is very small indeed when it is compared to the number who would be required to man and support the anti-submarine war organization which would be needed to keep the sea lanes open for the delivery of iron ore from Africa and South America, which are the alternatives. This extra Naval program would probably absorb at least as much steel and other scarce materials as would the St. Lawrence and in addition, it would demand the use of special materials and skills which certainly can ill be spared.

We and the United States, have already had one costly experience in the protection of a sea route over which our oil and bauxite had to be transported in the Second World War which very nearly brought disaster, and surely we should be wise enough not to invite its repetition.

The St. Lawrence project for navigation and power neither in its physical dimensions nor in its financial implications is that colossal, stupendous undertaking that some people have set out to picture, but I would agree that these superlatives will properly apply to the useful effects on our economy and defence arrangements which will come from its construction, more particularly at this time.

In this connection I would like to quote to you a resolution of the Canada-United States Permanent Joint Board on Defence which was read into the records of Congress early this year by the Secretary of State, Dean Acheson.

In the preamble to this resolution, the Board made reference to the deterioration of the international situation indicating a period of protracted crisis - requiring a steady increase in our military strength - pointed out that St. Lawrence Seaway and Power Project would yield large additional supplies of hydro-electric power already needed in the Northeastern USA and Eastern Canada which would be vital to expansion of our military strength - provide navigation facilities relatively safe from enemy action where most required to move war materials at less cost in money and resources - permit greatly increased shipbuilding also in relatively well-protected areas. The Board referred to Labrador ore as

an additional reason for early construction in the interest of defence. The Board, after searching analysis, stated the project would increase military potential out of all proportion to expenditure in manpower and critical materials, much of which would be required to be used in any event as additional power had to be provided.

Having in mind these considerations and reaffirming its previous Recommendations for the construction of the St. Lawrence project for navigation and power, the Board recommended:

"That the two Governments take immediate action to implement the 1941 St. Lawrence Agreement as a vital measure for their common defence."

Thus there is now on the public record the advice of the two bodies which have been created by Canada and the United States jointly to consider matters of mutual interest and concern along our boundary both for Peace and for Defence. The International Joint Commission, established under the Waterways Treaty of 1909, and the Canada-United States Permanent Joint Board on Defence, set up by President Roosevelt and Prime Minister King at Ogdensburg in August 1940, have both recommended - repeatedly - that the St. Lawrence project for navigation and power should be built - and promptly.

As the matter stands the resolution of the PJBD is directed to the implementation of the 1941 Agreement but I have no reason to doubt that this Board will be equally in favour of the alternative now being proposed by the Government of Canada. What the PJBD has pointed out is that the construction of the St. Lawrence Seaway and Power Project is now necessary; it has not concerned itself in any way with the arrangements by which this desirable dual objective may be fulfilled.

As regards the International Joint Commission, this body, as I have said, made favourable recommendation on the project in 1921, and further action must await an application from the two Governments covering the works on either side needed to be built in the International Section of the river.

I regret that the time available to me does not permit me to deal with some of the other very important matters concerning the boundary waters south of the Province of Ontario, such as the preservation of the scenic beauty of Niagara and the abatement of pollution in the connecting waters of the Great Lakes, which are being dealt with by the International Joint Commission, but I would say that in these and all other matters which are before the Commission we seek, as we have been instructed in the Treaty to seek, to dispel any differences which may arise before they may magnify and thus cause trouble on the border; we seek also to proceed in equity, to recognize the equality of the interests and the rights of Canada and the United States and to promote the mutual advantage in all matters which are remitted to the Commission for investigation or which come before it for decision, as the case may be; and I claim for the Permanent Joint Board on Defence a like attitude of close co-operation and intimate association in working for the solution of the problems which give us both great concern for our Defence, particularly in these dangerous times.