

1941.
NEW ZEALAND.

RIVER-CONTROL COMMITTEE

(REPORTS OF THE).
(MR. J. O'BRIEN, CHAIRMAN.)

Laid on the Table of the House of Representatives.

ORDERS OF REFERENCE.

Extracts from the Journals of the House of Representatives.

THURSDAY, THE 27TH DAY OF MARCH, 1941.

Ordered, "That a Select Committee be appointed, consisting of seven members, to inquire into and report upon such questions relating to the protection of property from damage by floods and erosion and to the control of rivers generally as may be referred to it by the House or the Government: the Committee to have power to sit during the adjournment of the House and to consist of Mr. Cullen, Mr. Goosman, Mr. Harker, Mr. Kyle, Mr. Lowry, Mr. O'Brien, and the Mover."—(Hon. Mr. ARMSTRONG.)

THURSDAY, THE 4TH DAY OF SEPTEMBER, 1941.

Ordered, "That the Soil Conservation and Rivers Control Bill be referred to the River-control Committee, and that, for the purpose of considering the Bill, the Committee have leave to sit on days on which the House is not sitting."—(Hon. Mr. ARMSTRONG.)

REPORTS.

To the Hon. the ACTING PRIME MINISTER.

THE Select Committee set up by Order of the House on the 27th March, 1941, to inquire into and report upon such questions relating to the protection of property from damage by floods and erosion and to the control of rivers generally as might be referred to it by the House or the Government, commenced its sittings on the 29th April, 1941.

Certain proposals forming the basis for a scheme for the protection of property from damage by floods and erosion, which had been drafted by the Public Works Department in consultation with other interested Departments of State, were referred by the Government to the Committee.

It was made clear that the Committee was not in any way bound by, or restricted to, these proposals, and they were taken, therefore, as the basis of a general inquiry into the problems of river-control, flooding, and soil-erosion.

These problems are not new, and the development of efforts to cope with them may be briefly reviewed.

The Public Works Department has been concerned with the question of flood-control almost since the Department's inception. Originally, flood-control work was undertaken almost solely for the purpose of protecting engineering structures, such as bridges, from damage by flood-waters. Then channel improvement to give quicker discharge for flood-waters was undertaken, followed by the building of stop-banks to prevent flood-waters spreading over valuable land, and finally, complete control schemes were undertaken by the Department.

The first major flood-control scheme undertaken by the Department was that for the Waihou and Ohinemuri Rivers, which was commenced about 1912. This scheme cost about £750,000, and was primarily designed to prevent the deposition of mining tailings on farm land, but it also gave complete

protection from floods to a large area of valuable land on the Hauraki Plains. This scheme was carried out solely from Government funds, and it was followed by such schemes as the Taieri Plains, Waimakariri, Hawke's Bay, and others, to all of which the local bodies concerned contributed varying proportions of the costs and, in some cases, carried out the actual construction.

It was realized many years ago, however, that some of the problems were quite beyond the capacity and resources of the local bodies to deal with single-handed, and in 1919 an Engineering Commission was set up to investigate the question of flood-control and to formulate general schemes for some of the larger rivers. These investigations were made by the Commission, and some of the schemes since carried out were based on the Commission's recommendations.

It became obvious that far-reaching legislation was necessary to meet the situation adequately, and, in 1929, the Department of Internal Affairs drafted a Bill consolidating and improving existing legislation to make better provision for the drainage of land and the protection of property from damage by floods and erosion of rivers. The Bill, however, was not proceeded with.

About the same time proposals were made by the Public Works Department that certain officers of the Department should be definitely allocated to investigate flood-control problems. Nothing was done, however, in the matter of so allocating officers, but the Department continued to make investigations as opportunity offered.

Other State Departments vitally interested in questions of erosion generally and of soil deterioration were also conducting investigations, since it was recognized that these matters were intimately connected with flooding and river-control.

Soon after the present Government came into office the Public Works Department was instructed to collect information to enable a long-range flood-control policy to be considered. A great amount of information was collated, and early in 1937 certain recommendations were made to the Government. These were approved, but for various reasons it was not found possible at that time to prepare legislation to deal with the position. The work of investigation was, however, continued by the Public Works Department and by Inter-departmental Committees which were set up in various districts to collect data on soil-erosion and flood-control.

Another Bill was drafted in 1938, but this was considered inadequate to the complex problem and was dropped, and the matter stood in abeyance until the beginning of the present year, when the proposals forming the basis of this Committee's inquiry were put forward.

Copies of the proposals referred to the Committee were sent out to over two hundred County Councils, River Boards, and Drainage Boards, as well as to certain major organizations, such as the Counties Association, the Municipal Association, the Farmers' Union, and others for their comments, criticism, and suggestions.

The Committee received replies from more than half the local bodies circularized, and it heard orally over sixty witnesses. Members of the Committee also visited North Canterbury, Westland, and Hawke's Bay, all being areas of different types.

Among the witnesses who gave valuable evidence were Engineers of the Public Works Department and of certain major River Boards and County Councils, and specialist officers on soil utilization, soil-protection, and classification of lands from the Departments of Lands, Agriculture, State Forest Service, Scientific and Industrial Research, and Valuation.

The Committee early came to the conclusion that the problems before it were closely inter-related and could be dealt with only by a comprehensive and national long-term plan, the full fruition of which would not become apparent for many years.

It was also realized that by far the greater portion of the financial burden of such a plan must fall on the State, but the evidence before it of the steadily increasing damage to the economic life of the Dominion led the Committee to the unanimous decision that the adoption of remedial measures should be no longer delayed.

The Committee was the more convinced that the formulation of such measures should be put in hand at once as it became apparent that the mere organization of a national plan would occupy a considerable period and that financial considerations, as well as the need for careful exploratory steps in individual districts, would restrict the putting into operation of such a plan to a gradual process.

The original proposals referred to the Committee related mainly to the prevention or minimizing of damage by floods and erosion, and the principal objections taken to these proposals by local authorities were (a) that they proposed to create new local bodies with rating-powers and (b) that they tended to the abolition of existing local bodies.

Other objections relating to the constitution of Boards and the voting-powers of electors and ratepayers have been met, as far as possible, by the scheme now recommended by the Committee.

The Committee is of opinion that any comprehensive scheme capable of dealing with the whole complex situation, and at the same time affording a measure of local control, will require the creation of a certain number of Boards with greater powers than those now held by local authorities; but this does not mean the abolition of all local authorities dealing with river and flooding problems. On the contrary, the Committee visualizes the enlargement, in powers and in areas controlled, of existing major, effective local bodies, perhaps with some changes in representation.

Provision, however, is made for the absorption of smaller local authorities where their operations are not co-ordinated to produce the maximum benefit or are ineffective through lack of revenue. Evidence showed that, not infrequently, the operations of a local authority placed extra burdens on

a neighbouring local authority. Moreover, even when such smaller local authorities have carried out important protective works with the aid of Government grants and subsidies the benefit has, in some cases, been eventually lost when the local authority has, through lack of revenue or for other reasons, failed to carry out continuous supervision and maintenance.

Governments have, over many years, paid out large sums in grants and subsidies to local bodies for river-control and flood-prevention works. For instance, during the last two financial years for which the completed figures are available a total of £347,643 has been paid out to River and Drainage Boards, and to this must be added large sums paid out to County Councils for similar works. A comprehensive scheme would ensure that the country derived the maximum benefit from this expenditure of public money.

The average expenditure over the last few years on flood damage restoration on highways has been about £150,000 per annum with about another £75,000 on county roads.

In both the written statements received by the Committee and in the oral evidence given there was a general recognition of the need for a river-control scheme and the prevention of soil-erosion. The Emergency Committee of the New Zealand Counties' Association, which voiced the objections and suggestions of most of the County Councils, commences its summary of its considered statement with the words: "(1) A river and erosion control scheme is needed": and it was found that as the Committee developed and explained the scheme it had in view to the representatives of local bodies who appeared before it, opposition was, in most cases, turned to support.

The following comment from a lengthy review of the original proposals by a County Engineer was apt enough to the situation of the Committee at that period:—

"In the main local authorities will condemn the proposals, but such condemnation should be tempered by the fact that, in dealing with problems of this kind and magnitude, a start must be made somewhere and somehow, and here we have a start. From the destructive criticism which, in most cases, will be abundant, and from the constructive criticism, although usually strong in argument and weak in information, a scheme should be evolved which will cope with the requirements of all, and serve the useful purpose for which it is formulated."

It may be stated, however, that the Committee received, and acted on, much useful constructive criticism founded on experience and knowledge.

New Zealand, owing to its configuration, its abundant rainfall, its rivers with generally short and rapid courses to the sea, and the uninformed destruction of its native plant-life, is to-day peculiarly liable to damage by river-erosion, sheet-erosion, and other forms of soil erosion and deterioration.

Vigorous and large-scale measures are being taken in other countries, particularly in the United States of America, to cope with these forms of damage to their economic life; but in New Zealand no considered plan has, so far, been put forward to combat what are, in fact, related evils.

The evidence before the Committee may be briefly summarized as attributing these evils in New Zealand to (a) increased flooding arising from increased run-off of rainfall through destruction or degrading of plant cover, (b) excessive burning, (c) overgrazing and other phases of inefficient husbandry, (d) damage by deer, rabbits, and other animal pests.

The Committee was informed that inter-departmental Committees which were set up in various districts in 1937 recommended that nearly 4,000 square miles, or, roughly, 2,500,000 acres, of land in New Zealand should be withdrawn from occupation because of soil-deterioration. In the Wellington Land District alone some 105,000 acres of Crown lands have been abandoned through deterioration, and it is estimated that another 200,000 acres is in process of reversion. In the Taranaki district abandoned Crown holdings total over 130,000 acres. Out of 39,000 acres in the Whangamomona Valley at one time held under Crown leases, 26,000 acres have been abandoned.

Evidence was also given that some 600,000 acres of sub-montane tussock land in the South Island should be withdrawn from occupation.

A large-scale experiment in the regeneration of tussock lands under controlled cattle-grazing is being carried out on the Molesworth and Tarndale Runs in the Marlborough district, where extensive deterioration and erosion has occurred.

Other significant figures, which it is unnecessary to quote here, were made available to the Committee.

The report of the Sheepfarming Industry Commission (II.-29A, 1940) states that "land deterioration is widespread. It would be greatly minimized by suitable modifications in farming practice. . ."

Having given careful consideration to the information, suggestions, and objections it received, the Committee recommends the adoption of a scheme providing for (a) the establishment of a central Soil Conservation and Rivers Control Council, and (b) the constitution of catchment districts each under a Catchment Board.

The Council will act as a co-ordinating and supervising body to the Catchment Boards and will also control those areas in New Zealand where Catchment Boards are unnecessary or where the peculiar local problems could not be so effectively handled by a Catchment Board. "Such a co-ordinating head is necessary" (Counties Association).

Each Catchment Board will consist of elective and non-elective members, provision being made that the elective members shall be in a majority. The object of the Committee in providing for nominated members is to ensure that Boards shall have the continuous services of engineering and other technical experts. It is anticipated that in many cases existing local authorities will become the Catchment Boards in their areas, thus utilizing local experience and knowledge.

In addition to their specific duties under the scheme, Catchment Boards will exercise a general supervision over River and Drainage Boards within the catchment districts.

The details of the scheme recommended are set out in the form of a Bill, with an explanatory memorandum attached.

The Committee desires to express its thanks to Mr. W. L. Newnham, Engineer-in-Chief to the Public Works Department, and to Mr. R. G. Macmorran, Under-Secretary for Lands, for their assistance during its sittings; and it desires also to place on record its high appreciation of the services of Mr. D. J. Dalglish, First Assistant Law Draftsman, who attended all meetings and whose knowledge and whose labour in drafting into legal form, and from time to time revising, the proposals and amendments of the Committee were invaluable.

The Committee desires also to express its appreciation of the services rendered by Mr. W. J. Organ, Clerk to the Committee.

5th August, 1941.

SOIL CONSERVATION AND RIVERS CONTROL BILL.

I HAVE the honour to report that the River-control Committee has carefully considered the Soil Conservation and Rivers Control Bill and recommends that the Bill be allowed to proceed with the amendments shown on the copy thereof hereto annexed.

10th September, 1941.

J. O'BRIEN, Chairman.

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