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DEVELOPMENT AND EXPANSION OF THE IRRIGATION SYSTEMS OF THE OKANAGAN VALLEY

A BRIEF PREPARED by the Association of British Columbia Irrigation Districts, March, 1946.

The annual meeting of the Association held in Kelowna on January 29th, 1946, passed the following resolution by unanimous vote:

"WHEREAS, despite the widespread prosperity and wealth created by irrigation in British Columbia, most Irrigation Districts have been for years, and still are, in a precarious financial position, and their operations restricted, and benefits from them curtailed through lack of capital;

AND WHEREAS the development of new irrigated lands is essential to provide for settlement of returning veterans;

AND WHEREAS the cost of extension and enlargement of the present irrigated areas, and the development of new sections, cannot be carried by the land immediately affected, but must be considered a provincial and national responsibility;

BE IT RESOLVED that this meeting of the Associated Irrigation Districts urge the Federal Government to extend the terms of the Prairie Farm Rehabilitation Act to British Columbia, so that the many veterans now settling in the irrigated areas be not handicapped by inability to find land, or by exorbitant charges for water, and that irrigation in this province may be placed on a sound basis."

In its inception the P.F.R.A. was intended solely to assist settlers in the drought areas of the prairie provinces, but there would appear to be no sound argument against the application of the same principles of government assistance for the development of irrigation in other areas where needed. The Dry Belt of British Columbia is an area in which, without the use of irrigation, the land would be unproductive, and the population sparse. Irrigation in the Okanagan Valley, the particular part of the Dry Belt we represent, was first undertaken by private land companies, and these companies, once they had disposed of the real estate, found themselves unable to operate except at a loss. They then either went into bankruptcy or turned their equity over to the land owners. During the succeeding decades the growers also have been unable to finance these irrigation projects from the land, and are in debt collectively to the Provincial Government's Conservation Fund for amounts running into several millions of dollars. While it might be argued by some that this is proof that irrigation is not a sound financial proposition, the evidence is all the other way. The only unsound proposition is the contention that the land upon which the irrigation is placed should bear the entire cost.

Looking back over the history of civilization, we find that wherever irrigation has been practised it has brought prosperity, but not necessarily to the primary producer. Irrigation turns the desert into fertile fields, orchards and vineyards, and brings a gift of plenty in place of barren desolation. Its cumulative effect over a period of years is to replenish the soil, and build the fertility of the land. The benefits are, however, only received in part by the actual tillers of the soil. For example, let us consider what has been accomplished here by the very limited present development of the systems in the Okanagan. Prosperous towns dot the country from the main line to the border, and from the approximate 25,000 acres now producing fruit, Okanagan apples have gone out to the markets of the world, and have put British Columbia in the forefront as the largest apple producing province in the Dominion. In 1944, the last year on which complete figures are available, the value of the fruit crop f.o.b. cars was in the neighborhood of $20,000,000. The Valley also supports extensive vegetable, dairying and poultry industries. This comparatively small area has been responsible for the very evident prosperity of the valley towns, which without irrigation, would be at best just small "cow towns", if they existed at all.

Subsidiary industries such as logging and sawmill operations are maintained by the need for boxes in which to ship fruit, forty million feet of lumber being required annually for this purpose alone. The lines of the two national railways running into the valley are amongst the most lucrative in the systems. From a twenty million dollar crop it is estimated that hardly more than 25% represents net income to the growers. When the income from the subsidiary industries is added to the total it will be seen that, while all this wealth is due to irrigation, the producers' share is relatively small, and in the long lean years of the depression the growers' share reached the vanishing point. How much of this wealth eventually reaches the government coffers is difficult to estimate, but it must be a very substantial sum. We feel confident in saying, that were the total costs of irrigation borne by the governments, they would still be far ahead financially, for without irrigation the valley would be a relatively poor and unproductive land.

The principle that irrigation is a reclamation project requiring, and deserving, the support of governments is conceded all over the world; and for examples of state aid to these projects we can turn not only to the irrigation projects of Alberta and Saskatchewan, but also to the Columbia basin project in the State of Washington to the south. There the huge initial costs have been borne by the government, and for the first ten years the settlers are required to pay only maintenance charges, and will repay only a quarter of the total costs, spread over a period of forty years. This brings up for consideration the fact that this particular project is primarily a power development, and irrigation is secondary. Today the idea of "Regional Planning" is becoming more and more the accepted thing. The Tennessee Valley Authority project in the U.S.A., and similar enterprises, have demonstrated

beyond doubt that the co-ordinated development of all the resources in an area represents the only sound economic process. We believe that the co-ordination of all the scattered irrigation systems of the Okanagan Valley into one system, and tying in with the development of irrigation dams, the development of cheap and plentiful supplies of electricity, represents the only common sense way to solve the financial and development problems of the irrigationist. Irrigation provides the basis upon which the entire life of the valley grows, and brings the customers for the power. The users of the power can contribute through their rates to the cost of irrigation, to which they owe their livelihood in the first instance, and dams for irrigation can be made to serve double duty by developing electrical energy at the same time. It has been stated by Lilienthal that the returns from power alone will repay in 60 years the entire 700 millions expended upon the T.V.A., where the dams were built to serve many purposes—flood control, river traffic and so on. The availability of cheap electrical power will increase the acreage that can be developed by permitting the pumping of water to areas that cannot be served by gravity systems. Only by this co-ordinated development can the area be fully productive, and only by this combination of power and irrigation can the systems become self-liquidating. Another manner in which such regional planning can assist is by tying in the development of needed domestic water systems. By co-ordination of effort, the maximum of use and of revenue can be obtained for the minimum of outlay.

There are in the Okanagan Valley and immediate vicinity some 27,000 additional acres of arable land, mostly within, or adjacent to the present irrigation systems, which could be brought under irrigation at a cost of from $100 to $150 per acre. The increase in production from this acreage would eventually double the present production of the area, expand the towns to almost twice their size, and cause new towns to develop. The resultant production would provide increased employment and augment the available market for goods from the coast cities, from the prairies and from the east, just as the P.F.R.A. projects are improving our markets for fruit by assuring the prairie farmer a full crop, regardless of drought.

The effects of the Saskatchewan drought were not felt in Saskatchewan alone. During that period thousand of prairie residents moved to the Interior of B.C., and settled on marginal lands. Some are well established now, but many are likely to be adversely affected by the first sign of deflation. In addition, thousands more have come here in the last few years, and land is at a premium. Ten acre lots are being subdivided into acre lots, acre lots into building lots and the rapid changes in ownership of orchard property have inflated values to unreasonable heights. In addition, many ex-service men, not formerly domiciled here, are coming to B.C. to reside. This trend of population toward the Pacific coast is in evidence from B.C. to the Mexican border, and is not unique here. It will impose a serious problem in the not too distant future. "What are all these people going to do when the present building boom is over?" is the question that is being continually asked. The development of this latent additional acreage is the answer. The building of the dams and irrigation works will provide employment, and the production from the lands will require their labor in the years that follow. The immediate effect also would be to solve the problem of the veteran who wants to acquire orchard land. At the present time few, if any, places are available within the $6,000 limit of a V. L. A. Loan. Expansion of the present systems would have the dual effect of making new acreage available, and letting some of the inflation out of present producing orchard values, bringing more places down within the range of the veteran. No form of public works that might be undertaken to take up any slack in employment will give a greater return on investment in the form of greater production and increased prosperity than will money invested in irrigation projects. The annual wealth produced would amount to many times the cost of the works.

Critics and sceptics will no doubt express fear of overproduction. In answer to this we would say that in our opinion there never has been overproduction. There has been and still is underconsumption, and there has been faulty distribution, and there might be again, if we fail to learn the lessons of the past. "Without vision the people perish" is the truest of sayings. To combat deflationary tendencies we must expand, not restrict. Money expended upon useful development will pay dividends, but money spent upon relief and doles only pauperizes and further depresses the people.

Much of the land that could be developed is not orchard but mixed farming land. In any case new orchard plantings would take 15 years to come into full production, and by that time many of the fully bearing orchards will have passed their peak and be going down hill. Many old orchards will never be replanted due to poor location, frost pockets, seepage, etc.

The trend, too, is more and more towards the processing of fruits, and there are several large canning firms prepared to enter the Okanagan, but are deterred by the lack of sufficient acreage. Increased production will also make it profitable to process waste products that now cannot be used because of insufficient volume to warrant the special processing plants. These plants would aid the employment situation. All this is entirely dependent upon the expansion of the irrigation systems of the Dry Belt.

We envision the development of the Okanagan Valley as only a part of the general development of the country as a whole. From the Maritimes to the Pacific the application of the principles of regional planning, as exemplified in T.V.A. and the P.F.R.A., will bring expanding markets within the Dominion. We cannot succeed in building a new and better Canada in a new and better world, on a basis of fear, of over-caution or pessimism. We need faith, courage, confidence, and above all, a spirit of optimism.

A. W. GRAY, President, A.B.C.I.D.
D. McDOUGALL, Secretary, A.B.C.I.D.

APPENDIX

Irrigation Development

Lands available for development are located as follows:

Salmon Arm	8,350 acres
Vernon	5,000
Kelowna, East of Lake	9,000
Kelowna, West of Lake	2,200
Cawston	2,500
Total	27,050

A detailed report on the Salmon Arm project, based on surveys by the Provincial Water Rights Branch, and soil surveys by the Department of Agriculture, is in the hands of the Provincial Minister of Lands and Forests. It would provide for irrigating a total of 8,346 acres at a cost of $879,900. The district around Kelowna is the largest irrigated area in the province. There are six Irrigation Districts and about a dozen Water Users' Communities. In every case the existing irrigation works have proved inadequate to serve the lands for which they were designed and large areas have been dropped. An estimated 12,000 acre feet of undeveloped storage is available in the Mission Creek watershed. Pumping from the Similkameen, or storage dams up the river could provide water for the Cawston bench.

Power Development

The Shuswap River could provide both power and irrigation dam sites to serve the Vernon and northern areas. The development of power on Mission Creek would provide irrigation water for every available acre in the Kelowna area. There is a difference in elevation of 700 feet between the upper benches and the lower flats. All water could be carried through the upper ditch, and that which was used on the lower lands would develop at least 3,000 horse power before being used for irrigation. An outline of the plan for this development was submitted to the B.C. Post-war Rehabilitation Council.

This would give cheap power for pumping, which, in turn, would make water available to all lands near the lake. Because it is the main source of water for the Okanagan Lake, it would prevent flooding and regulate the lake level to a great extent. Okanagan Falls offers a suitable site for power development, and in the Similkameen River Valley, sites exist where water could be stored to proivde irrigation for the lower valley, power for the mining area and prevent flood damage. The B.C. Power Commission has recently signified its intention of taking over power units at Peachland and Westbank, west of the Lake at Kelowna. The combination of power development here with irrigation needs might well be the solution of the irrigation problems of these two communities.